

B. A. Part II
ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)
(CBCS)

ENGLISH FOR COMMUNICATION
(Compulsory English)
(June 2019 Onwards)

Course Objectives:

- To enable the students to develop communication skills in English, both oral and written.
- To equip the students with the language skills for use in their personal, academic and professional lives.
- To develop the students essential employability skills.
- To help the students to enter the job market with confidence and the ability to work effectively.
- To help the students to learn and practice both language and soft skills.
- To encourage the active involvement of the students in learning process.
- To enable the students to cultivate a broad, human and cultured outlook.

CONTENTS

Semester III

Module I

- A) Oral Skills
- B) A Real Good Smile – **Bill Naughton**
- C) Mending Wall – **Robert Frost**

Module II

- A) Conversation Skills
- B) The Highway – **Ray Bradbury**

Module III

- A) Developing Writing Skills
- B) Whitewashing the Fence – **Mark Twain**

Module IV

- A) Father Returning Home –**Dilip Chitre**
- B) There is a Garden in Her Face – **Thomas Campion**

Semester IV

Module V

- A) E-Communication
- B) Preparation for England – **M.K. Gandhi**

Module VI

- A) Information Transfer and Interpretation of Data
- B) The Selfish Giant – **Oscar Wilde**
- C) Auto Wreck – **Karl Shapiro**

Module VII

- A) English for Banking and Industries
- B) The Journey – **Mary Oliver**

Module VIII

- A) An Old Man's Wisdom – **Sudha Murty**
- B) My Soul has a Hat – **Mário de Andrade**

- **PATTERN OF QUESTION PAPER**

B.A. II
ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)
ENGLISH FOR COMMUNICATION
(Compulsory English)
PATTERN OF QUESTION PAPER (June 2019 Onwards)

Semester III (Paper C)

Total Marks: 50

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	04
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	04
Q.2	A.	Answer the following questions in 3-4 sentences each. (3 out of 5)	3 on Prose and 2 on Poetry	06
	B.	Write Short Notes on the following in about 7-8 sentences each. (2 out of 3)	1 on Prose and 2 on Poetry	08
	C.	Two different Vocabulary Exercises to be set for 1 mark each	Prose and Poetry	02
Q.3	A.	Question to be set on ORAL SKILLS	Module I A	04
	B.	Question to be set on ORAL SKILLS	Module I A	05
Q.4	A.	Question to be set on CONVERSATION SKILLS	Module II A	04
	B.	Question to be set on CONVERSATION SKILLS	Module II A	04
Q.5	A.	Question to set on DEVELOPING WRITING SKILLS	Module III A	05
	B.	Question to set on DEVELOPING WRITING SKILLS	Module III A	04

Semester IV (Paper D)**Total Marks: 50**

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	04
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	04
Q.2	A.	Answer the following questions in 3-4 sentences each. (3 out of 5)	3 on Prose and 2 on Poetry	06
	B.	Write Short Notes on the following in about 7-8 sentences each. (2 out of 3)	1 on Prose and 2 on Poetry	08
	C.	Two different Vocabulary Exercises to be set for 1 mark each.	Prose and Poetry	02
Q.3	A.	Question to be set on E-COMMUNICATION	Module V A	05
	B.	Question to be set on E-COMMUNICATION	Module V A	04
Q.4	A.	Question to be set on INFORMATION TRANSFER AND INTERPRETATION OF DATA	Module VI A	04
	B.	Question to be set on INFORMATION TRANSFER AND INTERPRETATION OF DATA	Module VI A	04
Q.5	A.	Question to set on ENGLISH FOR BANKING AND INDUSTRIES	Module VII A	05
	B.	Question to set on ENGLISH FOR BANKING AND INDUSTRIES	Module VII A	04

B. A. PART II
LINGUISTICS (I.D.S)
(Paper I) (Semester III)
LANGUAGE AND LINGUISTICS (CBCS)

Detailed Syllabi (June 2019 Onwards)

Course Objectives:

- To acquaint the students with Language and Linguistics in general.
- To acquaint the students with Phonetics and Phonology.
- To acquaint the students with Morphology and Syntax.
- To acquaint the students with the concepts of Semantics and Pragmatics.

Module: I Introduction to Language

- I) Definitions
- II) Characteristics of Language
- III) Difference between Human and Animal Communication System

Module: II Introduction to Linguistics

- I) What is Linguistics?
- II) Linguistics as a Science
- III) Diachronic and Synchronic Linguistics
- IV) The Concepts of 'Signifier' and 'Signified'

Module: III Phonetics

I) Speech Mechanism:

- i) Organs of Speech: lips, teeth, tongue, palate (the roof of the mouth), uvula, and vocal-cords etc.
- ii) Description of English Consonants and Vowels with three-term labels
- iii) Active and Passive Articulators

II) Phonetics:

- i) Difference between Speech Sounds and Letters
- ii) What is Phonetics?
- iii) Branches of Phonetics: The Articulatory Phonetics, Acoustic Phonetics and Auditory Phonetics.
- iv) Phonetic Transcription of Simple Words

Module: IV Phonology

- I) Difference between Phonetics and Phonology
- II) Phonemes and Allophones
- III) Minimal Pairs,

Reference Books:

Gleason, H.A. *An Introduction to Descriptive Linguistics*. Amerind Publishing Co. (Chapter 1). 1961.

Langacker, R.W. *Language and its Structure*. New York: Harcourt Brace Jovanovich. Inc. 1973.

Hockett, C.F. *A Course in Modern Linguistics*. Oxford & IBH Publishing Company (chapter 64). 1958.

Robins, R.H. *General Linguistics: An Introductory Survey*. Longman. 1964.

Verma, S.K. and Krishnaswamy, N. *Modern Linguistics: An Introduction to Modern Linguistics*. Oxford University Press. 1989.

Velayudhan, S. & Mohanan, K.P. *An Introduction to the Phonetics and Structure of English*. Somaiya Publications Pvt. Ltd. New Delhi. 1977.

Bansal, R.K. & Harrison, J.B. *Spoken English for India*. Orient Longman. 1972.

Sethi, J. & Dhamija, P.V. *A Course in Phonetics and Spoken English*. Prentice Hall of India, New Delhi. 1989.

Balasubramanian, T. *A Textbook of English Phonetics for Indian Students*. Macmillan. 1981.

Hornby, A.S. *Oxford Advanced Learner's Dictionary of Current English*. 1974.

Varshney, R.L... *An Introductory Textbook of Linguistics and Phonetics*. Students store, Bareilly. 1986.

B. A. PART II LINGUISTICS (I.D.S) (Paper I) (Semester III) LANGUAGE AND LINGUISTICS (CBCS)

QUESTION PAPER PATTERN

June 2019 Onwards

Total Marks: 50

- | | |
|---|------|
| Q. 1. Five multiple choice questions with four alternatives to be set on all modules | [5] |
| Q. 2. Short notes in about 5 - 6 sentences each: (5 out of 7)
(On Module 1 & 2) | [15] |
| Q. 3. A) Short Answer type questions in about 4 - 5 sentences each: (5 out of 7)

(On Module 3 & 4) | [15] |
| B) Description of English phonemes/ speech sounds with three-term labels: | [5] |

- (5 out of 7)
- Q. 4. A) Conventional spellings of the transcribed words: (5 out of 7) [5]
B) Identification of the different phonemes from the minimal pairs given [5]
(5 out of 7)

B. A. PART II
LINGUISTICS (I.D.S)
(Paper II) (Semester IV)
LANGUAGE AND LINGUISTICS (CBCS)

Detailed Syllabi (June 2019 Onwards)

Module: I Morphology

- I) The Concept of Morpheme
- II) Types of Morpheme
- III) Allomorphs
- IV) Morphological Analysis
- V) Morphological Processes: Affixation, Conversion, Compounding, Reduplication, Blending, Clipping etc.

Module: II Syntax

- I) What is Syntax?
- II) Elements of Clause [SPOCA]
- III) Basic Clause Patterns
- IV) Simple Sentences and Complex Sentences
- V) Immediate Constituent Analysis [IC Analysis]

Module: III Semantics

- I) What is Semantics?
- II) Lexical Relations: Synonymy, Antonymy, Polysemy, Homonymy, Hyponymy and Collocation

Module: IV Pragmatics

- I) What is Pragmatics?
- II) Difference between Semantics and Pragmatics
- III) Deixis: Person, Place, Time, Discourse and Social
- IV) Adjacency Pairs
- V) Cooperative Principle (CP)

Reference Books:

Leech, G.N. *English Grammar for Today: An Introduction*. The Macmillan: London. 1984.

Hockett Charles, *A Course in Modern Linguistics*. Oxford & IBH Publishing Company, Bombay. 1970.

Palmer, F.R. *Semantics*. Cambridge University Press. 1981.

Leech, G.N. *Semantics*. Penguin Books, London. 1981.

Levinson S.C. *Pragmatics*. Cambridge: CUP. 1983.

Leech, G.N. *Principles of Pragmatics*. Longman Group Ltd, London. 1986.

Yule, George. *Pragmatics*. Oxford University Press. 2004.

Onions, C.T. & Miller B.D.H. *Modern English Syntax*. Rutledge, London. 1971.

Jupp, T.C. & Milne J.L. *English Sentence Structure*. The English Book Society and Heinemann Educational Books. 1968.

B. A. PART II LINGUISTICS (I.D.S)
(Paper II) (Semester IV)
LANGUAGE AND LINGUISTICS (CBCS)

QUESTION PAPER PATTERN
June 2019 Onwards

Total Marks: 50

- | | |
|--|------|
| Q. 1. Five multiple choice questions with four alternatives to be set on all modules | [5] |
| Q. 2. A) Short notes in about 5 - 6 sentences each: (5 out of 7) | [15] |
| (On Module I & II) | |
| B) Morphological analysis of the words using tree diagrams. | |
| (5 out of 7) | [5] |
| Q. 3. A) Short Answer type questions in about 4 - 5 sentences each (5 out of 7) | |
| (On Module III & IV) | [15] |
| B) I C Analysis of the sentences (5 out of 7) | [5] |
| Q. 4. A) Identification of different deixis given in the passage/dialogue: | [5] |

B. A. Part II
(Discipline Specific Core) (DSC-C5)
English (Paper III) (Semester III)
LITERATURE AND CINEMA (CBCS)

Course Objectives:

- To introduce film and its relationship to literature to the students
- To acquire film literacy through a working knowledge of basic film terminology
- To develop critical approaches to engage with film adaptations
- To establish a clear understanding of literature through film adaptations of literary texts
- To introduce the students to the issues and practices of cinematic adaptations

Detailed Syllabi
June 2019 Onwards

Module I

Theories of Adaptation

Module II

Adaptation as Interpretation

Module III

William Shakespeare's *Comedy of Errors* and its Adaptation *Angoor* (dir. Gulzar, 1982)

Module IV

William Shakespeare's *Comedy of Errors* and its Adaptation *Angoor* (dir. Gulzar, 1982)

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Shakespeare, William. *The Comedy of Errors*, ed. Wells (Oxford, 1995).

William Shakespeare's *Comedy of Errors* and its Adaptation *Angoor* (dir. Gulzar, 1982)

Suggested Reading:

Linda Hutcheon, 'On the Art of Adaptation', *Daedalus*, vol. 133, (2004).

Thomas Leitch, 'Adaptation Studies at Crossroads', *Adaptation*, 2008, vol.1, no.1, pp. 63–77.

Poonam Trivedi, 'Filmi Shakespeare', *Litfilm Quarterly*, vol. 35, issue 2, 2007.

Tony Bennett and Janet Woollacott, 'Figures of Bond', in *Popular Fiction: Technology, Ideology, Production, Reading*, ed. Tony Bennet (London and New York: Routledge, 1990).

Deborah Cartmell and Imelda Whelehan, eds., *The Cambridge Companion to Literature on Screen* (Cambridge: Cambridge University Press, 2007).

John M. Desmond and Peter Hawkes, *Adaptation: Studying Film and Literature* (New York: McGraw-Hill, 2005).

Linda Hutcheon, *A Theory of Adaptation* (New York: Routledge, 2006).

J.G. Boyum, *Double Exposure* (Calcutta: Seagull, 1989).

B. Mcfarlens, *Novel to Film: An Introduction to the Theory of Adaptation* (Clarendon University Press, 1996).

B. A. Part II
(Discipline Specific Core) (DSC-C5)
English (Paper III) (Semester III)
LITERATURE AND CINEMA
(CBCS)
June 2019 Onwards
Pattern of Question Paper

Marks: 50

- Q1. A) Five multiple choice questions with four alternatives (5)
B) Answer the following questions in one word/ phrase/sentence each.
(Q. 1 A and B to be set on Module III and IV) (5)
- Q.2. Answer the following questions in about 250-300 words (10)
(A or B on Module I and II)
- Q.3. Answer the following questions in about 250-300 words (10)
(A or B on Module III and IV)
- Q.4. Write Short Notes in about 100-150 words each (4 out of 6) (20)
(three to be set on Module I, II, and three on Module III, IV)

Suggestions for Q.3 and Q.4:

- A film/book review of the prescribed film/text
- Comparative study of the text and film adaptation based on technique, cinematic liberty, distortion, plot, characterization, language, theme, etc.
- From page to stage difference between the textual aesthetics and film aesthetics
- Questions based on the theory of adaptation
- Structural elements of the text and the film
- Questions based on text and context

B. A. Part II
(Discipline Specific Core) (DSC-C29)
English (Paper V) (Semester IV)
LITERATURE AND CINEMA
(CBCS)

Course Objectives:

- To introduce film and its relationship to literature to the students
- To acquire film literacy through a working knowledge of basic film terminology
- To develop critical approaches to engage with film adaptations
- To establish a clear understanding of literature through film adaptations of literary texts
- To introduce students to the issues and practices of cinematic adaptations

Detailed Syllabi
June 2019 Onwards

Module I

Transformation and Transposition

Module II

Hollywood and 'Bollywood'

Module III

Chetan Bhagat's *Five Point Someone* and its Adaptation *3 Idiots* (dir. Rajkumar Hirani, 2009)

Module IV

Chetan Bhagat's *Five Point Someone* and its Adaptation *3 Idiots* (dir. Rajkumar Hirani, 2009)

Division of Teaching: 4 X 15 Periods = 60 Periods

Prescribed Text:

Bhagat, Chetan, *Five Points Someone*. New Delhi: Rupa & Co. 2004.

Chetan Bhagat's *Five Point Someone* and its Adaptation *3 Idiots* (dir. Rajkumar Hirani, 2009)

Suggested Reading:

Linda Hutcheon, 'On the Art of Adaptation', *Daedalus*, vol. 133, (2004).

Thomas Leitch, 'Adaptation Studies at Crossroads', *Adaptation*, 2008, vol.1, no.1, pp. 63–77.

Poonam Trivedi, 'Filmi Shakespeare', *Litfilm Quarterly*, vol. 35, issue 2, 2007.

Tony Bennett and Janet Woollacott, 'Figures of Bond', in *Popular Fiction: Technology, Ideology, Production, Reading*, ed. Tony Bennet (London and New York: Routledge, 1990).

Deborah Cartmell and Imelda Whelehan, eds., *The Cambridge Companion to Literature on Screen* (Cambridge: Cambridge University Press, 2007).

John M. Desmond and Peter Hawkes, *Adaptation: Studying Film and Literature* (New York: McGraw-Hill, 2005).

Linda Hutcheon, *A Theory of Adaptation* (New York: Routledge, 2006).

J.G. Boyum, *Double Exposure* (Calcutta: Seagull, 1989).

B. Mcfarlens, *Novel to Film: An Introduction to the Theory of Adaptation* (Clarendon University Press, 1996).

Biswas Mun Mun Das, "Depiction of Youth Culture in Chetan Bhagat's *Five Point Someone*"
The Criterion: An International Journal in English, Vo.4, Issue-II, April 2013,
<http://www.the-criterion.com/V4/n2/Mun.pdf>

B. A. Part II
(Discipline Specific Core) (DSC-C29)
English (Paper V) (Semester IV)
LITERATURE AND CINEMA (CBCS)

June 2019 Onwards
Pattern of Question Paper

Marks: 50

- | | |
|--|------|
| Q1. A) Five multiple choice questions with four alternatives | (5) |
| B) Answer the following questions in one word/ phrase/sentence | |
| (Q. 1 A and B to be set on Module III and IV) | (5) |
| Q2. Answer the following questions in about 250-300 words | [10] |
| (A or B on Module I and II) | |
| Q3. Answer the following questions in about 250-300 words | [10] |
| (A or B on Module III and IV) | |
| Q4. Write Short Notes in about 100-150 words each (4 out of 6) | [20] |
| (three to be set on Module I, II, & three on Module III, IV) | |

Suggestions for Q.3 and Q.4:

- A film/book review of the prescribed film/text
- Comparative study of the text and film adaptation based on technique, cinematic liberty, distortion, plot, characterization, language, theme, etc.
- From page to stage difference between the textual aesthetics and film aesthetics
- Questions based on the theory of adaptation
- Structural elements of the text and the film
- Questions based on text and context

B. A. Part II
(Discipline Specific Core) (DSC-C6)
English (Paper IV) (Semester III)
PARTITION LITERATURE (CBCS)

Course Objectives:

- To create an awareness of the partition scenario among the students
- To explain the hidden human dimensions of the partition to the students
- To elaborate on the impact of partition on society

Detailed Syllabi
June 2019 Onwards

Module I

Partition: Causes and Effects

Module II

Communal conflicts and Violence

Module III

Khushwant Singh's *A Train to Pakistan*

Module IV

Khushwant Singh's *A Train to Pakistan*

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

Prescribed Text:

Singh, Khushwant. *A Train to Pakistan*. New Delhi: Ravi Dayal Publishers, 1956.

Suggested Reading:

Ritu Menon and Kamala Bhasin, 'Introduction', in *Borders and Boundaries* (New Delhi: Kali for Women, 1998).

Sukirta P. Kumar, *Narrating Partition* (Delhi: Indialog 2004).

Urvashi Butalia, *The Other Side of Silence: Voices from the Partition of India* (New Delhi: Kali for Women, 2000).

More, D.R. *The Novels on the Indian Partition*, Jaipur, Shruti Publication, 2008.

Sigmund Freud, 'Mourning and Melancholia', in *The Complete Psychological Works of Sigmund Freud*, tr. James Strachey (London: Hogarth Press, 1953) pp.3041-53.

Beniwal, Anup. *Representing Partition: History, Violence and Narration*. Delhi: Shakti Book House. 2005.

Bhalla, Alok. *Partition Dialogues: Memories of a Lost Home*. New Delhi: Oxford University Press. 2006.

Sharma, V.P. "Communalism and its Motifs in three Post Independence Novels: Khushwant Singh's *A Train to Pakistan*, Bhisham Sahni's *Tamas* and Chaman Nahal's *Azadi*," *Recent Indian English Literature*. Ed. S.D. Sharma, Karnal: Natraj Publishing House, 1998. Print.

Shyam. M. Asnani. "The Theme of Partition in the Indo-English Novel." *New Dimensions of Indian English Novel*. New Delhi: Doaba House Publication, 1988.38-50. Print.

B. A. Part II
(Discipline Specific Core) (DSC-C30)
English (Paper VI) (Semester IV)
PARTITION LITERATURE (CBCS)
Detailed Syllabi
June 2019 Onwards

Module I

Impact of Partition on Women

Module II

Home and Exile

Module III

Short Stories:

Toba Tek Singh	- Saadat Hasan Manto
The Final Solution	- Manik Bandopadhyay

Module IV

Short Stories:

Defend Yourself Against Me	- Bapsi Sidhwa
A Leaf in the Storm	- Lalithambika Antharjanam

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

Short Stories Prescribed From:

Saadat Hasan Manto, "Toba Tek Singh", in *Black Margins: Manto*, tr. M. Asaduddin (New Delhi: Katha, 2003) pp. 212–20.

Manik Bandhopadhyaya, 'The Final Solution', tr. Rani Ray, *Mapmaking: Partition Stories from Two Bengals*, ed. Debjani Sengupta (New Delhi: Srishti, 2003) pp. 23–39.

Sidhwa, Bapsi. "Defend Yourself Against Me." in *And the World Changed: Contemporary Stories by Pakistani Women*, ed. M. Shamsie, 27–52. New York: The Feminist Press, 2008.

Lalithambika Antharjanam, "A Leaf in the Storm", tr. K. Narayana Chandran, in *Stories about the Partition of India*. ed. Alok Bhalla (New Delhi: Manohar, 2012) pp. 137–45.

Suggested Reading:

Ritu Menon and Kamala Bhasin, 'Introduction', in *Borders and Boundaries* (New Delhi: Kali for Women, 1998).

Sukirta P. Kumar, *Narrating Partition* (Delhi: Indialog 2004).

Urvashi Butalia, *The Other Side of Silence: Voices from the Partition of India* (New Delhi: Kali for Women, 2000).

More, D.R. *The Novels on the Indian Partition*, Jaipur, Shruti Publication, 2008.

Sigmund Freud, 'Mourning and Melancholia', in *The Complete Psychological Works of Sigmund Freud*, tr. James Strachey (London: Hogarth Press,1953) pp.3041-53.

Beniwal, Anup. *Representing Partition: History, Violence and Narration*. Delhi: Shakti Book House. 2005.

Bhalla, Alok. *Partition Dialogues: Memories of a Lost Home*. New Delhi: Oxford University Press. 2006.

Sharma, V.P. "Communalism and its Motifs in three Post Independence Novels: Khushwant Singh's *A Train to Pakistan*, Bhisham Sahni's *Tamas* and Chaman Nahal's *Azadi*," *Recent Indian English Literature*. Ed. S.D. Sharma, Karnal: Natraj Publishing House, 1998. Print.

Shyam. M. Asnani. "The Theme of Partition in the Indo-English Novel." *New Dimensions of Indian English Novel*. New Delhi: Doaba House Publication, 1988.38-50. Print.

B. A. Part II
(Discipline Specific Core) (DSC-C6 and C30)
Semester III (Paper IV) and Semester IV (Paper IV)
PARTITION LITERATURE
(CBCS)
June 2019 Onwards

Pattern of Question Paper for (Paper IV) and (Paper IV)

- Q.1. A) Multiple Choice Questions with four alternatives. (5)
 B) Answer the following questions in one word/ phrase/sentence each. (5)
 (Q.1 A and B to be set on Module III and IV)
- Q.2.A) Answer the following question in about 250-300words. (10)
 OR
 B) Answer the following question in about 250-300words. (10)
 (A and B to be set on Module I and II)
- Q.3. A) Answer the following question in about 250-300words. (10)
 OR
 B) Answer the following question in about 250-300words. (10)
 (A and B to be set on Module III and IV)
- Q.4 A) Write short notes in about 100-150words each: (4 out of 6) (20)
 (3 to be set on Module I and II and 3 to be set on Module III and IV)

B. A. Part II
(Discipline Specific Core) (DSC-D17)
LINGUISTICS (Paper III) (Semester III)
INTRODUCTION TO MODERN GRAMMAR (CBCS)

Course Objectives:

- To acquaint the students with basic concepts in Linguistics in general
- To acquaint the students with units of language – Words, Phrases, Clauses, and Sentences
- To acquaint the students with the form and function of units of language
- To acquaint the students with basic concepts in Semantics
- To acquaint the students with basic concepts in Socio-linguistics

Detailed Syllabi
June 2019 Onwards

Module I

Orientation:

1. What is Grammar?
2. Prescriptive and Descriptive Grammar

Module II

Word Classes:

1. Open Class Words
2. Closed Class Words

Module III

Phrases:

1. Noun Phrase
2. Prepositional Phrase
3. Adjective Phrase

Module IV

Phrases:

1. Adverb Phrase
2. Genitive Phrase
3. Verb Phrase

Reference Books:

- Kanbarkar R.K. and Kulkarni R. A. *A Grammar of English*. Unique Publisher House, 1978.
- Leech G. N. et.al *English Grammar for Today*. Macmillan, 1973.
- Shastri S.V. & Shaikh M.A. *A Course in English Grammar and Composition*, Kolhapur, Phadake Publications, 1978.
- Thomson and Martinet. *A Practical English Grammar*. Oxford University Press, 1960.

Suggested Reading:

- Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*. Macmillan, 1981.
- Bolinger, Dwight. *Aspects of Language*. Harcourt Brace Javonovich, New York, 1968
- Quirk Randolph, *A University Grammar of English*. Oxford University Press. 1973.
- Crystal, David. *Linguistics*. Penguin Books, England. 1982
- Hockett, Charles F. *A Course in Modern Linguistics*. New York: Macmillan, 1958
- Rajimwale, Sharad. *Elements of General Linguistics Vol. I, II* Rama Brothers, New Delhi. 2001
- Ullman S. *The Principals of Semantics*. Oxford, Blackwell. 1957
- Yule, George. *Pragmatics*. Oxford OUP. 1996

B. A. Part II
(Discipline Specific Core) (DSC-D17)
LINGUISTICS (Paper III) (Semester III)
INTRODUCTION TO MODERN GRAMMAR (CBCS)
The Pattern of Question Paper
June 2019 Onwards

	Total Marks 50
Q. 1. Five Multiple Choice questions based on all Modules	[5]
Q. 2. Short answer type questions on Module I and II (2 out of 3)	[10]
Q. 3. Short Notes on Module III and IV (3 out of 4)	[15]
Q. 4. Give form and function labels on Module III (5 out of 6)	[10]
Q. 5. Correction of Sentences (based on articles, preposition, adverbs. Concord, number, voice, etc) (10 out of 10)	[10]

B. A. Part II
(Discipline Specific Core) (DSC-D45)
LINGUISTICS (Paper V) (Semester IV)
INTRODUCTION TO MODERN GRAMMAR (CBCS)

Course Objectives:

- To acquaint the students with Clauses
- To acquaint the students with different type of Sentences
- To acquaint the students with basic concepts in Stylistics and Sociolinguistics
- To acquaint the students with Varieties of Language

Detailed Syllabi (June 2019 Onwards)

Module I

Clauses:

1. Finite Clauses
2. Non-finite Clauses
3. Main Clauses

Module II

1. Subordinate Clauses
2. Co-ordination

Module III

Sentences:

1. Statements
2. Interrogative
3. Exclamatory
4. Imperative
5. Negative
6. Affirmative

Module IV

Sentences:

1. Simple
2. Compound
3. Complex
4. Active
5. Passive

Reference Books:

- Kanbarkar R.K. and Kulkarni R. A. *A Grammar of English*. Unique Publisher House, 1978.
- Leech G. N. et.al *English Grammar for Today*. Macmillan, 1973.

Shastri S.V. & Shaikh M.A. *A Course in English Grammar and Composition*, Kolhapur, Phadake Publications, 1978.
 Thomson and Martinet. *A Practical English Grammar*. Oxford University Press, 1960.

Suggested Reading:

Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*. Macmillan, 1981.
 Bolinger, Dwight. *Aspects of Language*. Harcourt Brace Javonovich, New York, 1968.
 Quirk Randolph, *A University Grammar of English*. Oxford University Press. 1973.
 Crystal, David. *Linguistics*. Penguin Books, England. 1982.
 Hockett, Charles F. *A Course in Modern Linguistics*. New York: Macmillan, 1958.
 Sharad. *Elements of General Linguistics Vol. I, II* Rama Brothers, New Delhi. 2001.
 Ullman S. *The Principals of Semantics*. Oxford, Blackwell. 1957.
 Yule, George. *Pragmatics*. Oxford OUP. 1996.

B. A. Part II
(Discipline Specific Core) (DSC-D45)
LINGUISTICS (Paper V) (Semester IV)
INTRODUCTION TO MODERN GRAMMAR (CBCS)
PATTERN OF QUESTION PAPER
June 2019 Onwards

	Total Marks 50
Q. 1. Five Multiple Choice questions based on all Modules.	[5]
Q. 2. Short answer type question on Module 1 and 2 (2 out of 3)	[10]
Q. 3. Short Note on Module 3 & 4 (3 out of 4)	[15]
Q. 4. Give form and function labels (on Module III) (5 out of 6)	[10]
Q. 5. Correction of Sentences (based on articles, preposition, adverbs, Concord, number, voice etc) (10 out of 10)	[10]

B. A. Part II
(Discipline Specific Core) (DSC-D18)
LINGUISTICS (Paper IV) (Semester III)
PERSPECTIVES ON MODERN LINGUISTICS (CBCS)

Detailed Syllabi
June 2019 Onwards

Module I

Orientation:

1. What is Linguistics?
2. Branches of Linguistics
3. What is Semantics?

Module II

Orientation:

1. What is style?
2. What is stylistics?
3. What is sociolinguistics?

Module III

Linguistics:

1. History of Linguistics?
2. Langue and Parole
3. Language as a System of Sign:
(Sign- Signifier-Signified.)
4. Diachronic and Synchronic Linguistics

Module IV

Semantics:

1. Synonymy
2. Antonymy
3. Polysemy

Reference Books:

Crystal, David. *Linguistics*. Penguin Books, England.1982
Hudson R. A. *Sociolinguistics*. Cambridge, C.U.P. 1980
Leech, G. N. *A Linguistic Guide to English Poetry*. Longman, London.1969
Palmar, F. R. *Semantics*. Cambridge University Press.1996
Rajimwale, Sharad. *Elements of General Linguistics* Vol. I, II Rama Brothers, New Delhi. 2001.

Suggested Reading:

Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*.

Macmillan. 1981.
Bolinger, Dwight. *Aspects of Language*. Harcourt Brace Javonovich, New York,1968.

Corder, S. Pit. *Introducing Applied Linguistics*. Harmondsworth, Penguin 1973.
Hockett, Charles F. *A Course in Modern Linguistics*. New York: Macmillan, 1958.
Ullman S. *The Principals of Semantics*. Oxford, Blackwell.1957.

B. A. Part II
(Discipline Specific Core) (DSC-D18)
LINGUISTICS (Paper IV) (Semester III)
PERSPECTIVES ON MODERN LINGUISTICS (CBCS)

PATTERN OF QUESTION PAPER
June 2019 Onwards

	Total Marks 50
Q. 1. Five Multiple Choice questions based on all Modules	[5]
Q. 2. Short answer type questions on Module I and II (2 out of 3)	[10]
Q. 3. Short Notes on Module III and IV (2 out of 3)	[10]
Q. 4. Short Answer type questions on Module II and III (5 out of 7)	[10]
Q. 5. Essay type question on Module III and IV (1 out of 2)	[15]

B. A. Part II (Discipline Specific Core) (DSC-D46)
LINGUISTICS (Paper VI) (Semester IV)
PERSPECTIVES ON MODERN LINGUISTICS
(CBCS)

Detailed Syllabi
June 2019 Onwards

Module I

1. Hyponymy
2. Homonymy
3. Collocation

Module II

Stylistics:

1. Ordinary and Literary Language
2. Poetic Devices:
 - a) Sense Devices
Figures of Speech
 - b) Sound Devices:
Rhyme & Rhythm, Alliteration, Onomatopoeia
3. Stylistic Analysis of a Short Poem.

Module III

Sociolinguistics:

- a. Varieties of Language
- b. Dialect: Regional & Social
- c. Standard Language

Module IV

Varieties of Language:

- a. Code-mixing and code-switching
- a. Pidgin and Creole

Reference Books:

1. Crystal, David. *Linguistics*. Penguin Books, England.1982
2. Hudson R. A. *Sociolinguistics*. Cambridge, C.U.P. 1980
3. Leech, G. N. *A Linguistic Guide to English Poetry*. Longman, London.1969
4. Palmer, F. R. *Semantics*. Cambridge University Press.1996
5. Rajimwale, Sharad. *Elements of General Linguistics* Vol. I, II Rama Brothers, New Delhi.2001

Suggested Reading:

1. Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*. Macmillan, 1981.
2. Bolinger, Dwight. *Aspects of Language*. Harcourt Brace Javonovich, New York,1968

3. Quirk Randolph, *A University Grammar of English*. Oxford University Press. 1973.
4. Crystal, David. *Linguistics*. Penguin Books, England. 1982
5. Hockett, Charles F. *A Course in Modern Linguistics*. New York: Macmillan, 1958
6. Rajimwale, Sharad. *Elements of General Linguistics Vol. I, II* Rama Brothers, New Delhi. 2001
7. Ullman S. *The Principals of Semantics*. Oxford, Blackwell. 1957
8. Yule, George. *Pragmatics*. Oxford OUP. 1996

B. A. Part II (Discipline Specific Core) (DSC-D46)
Linguistics (Paper VI) (Semester IV)
PERSPECTIVES ON MODERN LINGUISTICS
(CBCS)

Pattern of Question Paper
June 2019 Onwards

	Total Marks 50
Q. 1 Five Multiple Choice questions based on all Modules	[5]
Q 2 Short answer type questions on Module 1 & 2 (2 out of 3)	[10]
Q 3 Short Note on Module 3 & 4 (2 out of 3)	[10]
Q 4 Short Answer type questions on Module 2 to 3 (5 out of 7)	[10]
Q. 5 Essay type question on Unit- 3 to 4 (1 out of 2)	[15]

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.A. Part-III

English

Syllabus to be implemented from

June, 2020 onwards.

Shivaji University, Kolhapur
B. A.III
Compulsory English
Ability Enhancement Compulsory Course (CBCS)
ENGLISH FOR COMMUNICATION
From June 2020 Onwards

Course Objectives:

- To enhance students' communication skills
- To impart employability skills to students
- To prepare students for competitive examinations
- To enable students to acquire professional skills such as media writing
- To enable students to learn manners and etiquettes required at workplace
- To enhance students' reading comprehension skills
- To create interest in English literature among students
- To inculcate human values and ethics in order to enable students' to become good citizens of the country

Course Outcomes: After the completion of the course, the students will be able to:

- Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.
- Face job interviews confidently and efficiently.
- Acquire soft skills required at workplaces and in real life.
- Learn group behavior and team work.
- Learn to value and respect others' opinions and views and develop democratic attitude.
- Face competitive examinations confidently and efficiently with adequate linguistic confidence.
- Acquire professional skills required in media writing such as writing editorials.
- Learn to appreciate and enjoy reading poetry and prose passages.
- Acquire human values and develop cultured outlook.

SEMESTER V AECC 5

MODULE I

- A. Interview Skills
- B. The Interview -V.V. John

MODULE II

- A. Grammar for Competitive Examinations
- B. The Lottery - Shirley Jackson

MODULE III

- A. Writing Skills for Competitive Examinations
- B. After Twenty Years - O' Henry

MODULE IV

- A. I Shall Return To This Bengal - Jibananda Das
- B.(i) Song of Youth - A. P. J. Abdul Kalam
- (ii) The Orphan Girl - Henry Derezio

***Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR**

SEMESTER VI

AECC 6

MODULE V

- A. Group Discussion
- B. The Lighthouse Keeper of Aspinwall - Henry Sienkiewicz

MODULE VI

- A. Note Making and Note Taking
- B. Three Questions - Leo Tolstoy

MODULE VII

- A. Media Writing
- B. Eight Rupees - Murli Das Melwani

MODULE VII

- A. The Mystic Drum - Gabriel Okara
- B. (i) Two Dead Soldiers- Jean Arasanayagam
(ii) Bora Ring - Judith Wright

***Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT**

Division of Teaching Hours 8 Modules x 15 Hours = 120 Hours

Shivaji University, Kolhapur
B. A.III
Compulsory English
Ability Enhancement Compulsory Course (CBCS)
ENGLISH FOR COMMUNICATION

PATTERN OF QUESTION PAPER (June 2020 Onwards)

Semester V (Paper E)

Total Marks: 40

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	03
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	03
	C.	Two different Vocabulary Exercises to be set for 1 mark each	Prose and Poetry	02
Q.2	A.	Answer the following questions in 3-4 sentences each. (2 out of 3)	2 on Prose and 1 on Poetry	04
	B.	Write Short Note on the following in about 7-8 sentences each. (1 out of 2)	1 on Prose and 1 on Poetry	04
Q.3	--	Questions to be set on Interview Skills (A or B)	Module I A	08
Q.4	--	Question to be set on Grammar for Competitive Examinations (A or B)	Module II A	08
Q.5	--	Question to set on Writing Skills for Competitive Examinations(A or B)	Module III A	08

Semester VI (Paper F)

Total Marks: 40

Q. No	Sub Q.	Type of Question	Based on	Marks
Q. 1	A.	Four multiple choice questions with four alternatives to be set	Prose and Poetry	03
	B.	Answer in one word/phrase/sentence each.	Prose and Poetry	03
	C.	Two different Vocabulary Exercises to be set for 1 mark each.	Prose and Poetry	02
Q.2	A.	Answer the following questions in 3-4 sentences each. (2 out of 3)	2 on Prose and 1 on Poetry	04
	B.	Write Short Note on the following in about 7-8 sentences each. (1 out of 2)	1 on Prose and 1 on Poetry	04
Q.3	--	Question to be set on Group Discussion(A or B)	Module V A	08
Q.4	--	Question to be set on Note Making and Note Taking(A or B)	Module VI A	08
Q.5	--	Question to set on Media Writing(A or B)	Module VII A	08

Shivaji University, Kolhapur
B. A. Part III
Special English
INTRODUCTION TO LITERARY CRITICISM (CBCS)
Discipline Specific Elective
Semester V (Paper VII) (DSE- E11) & Semester VI (Paper XII) (DSE- E136)
From June 2020 onwards

Course Objectives:

- To introduce students to the major trends in literary criticism.
- To familiarize students with the major critical concepts.
- To help students to study the original contributions made in the field of literary criticism.
- To acquaint students with the various literary and critical movements.
- To train students to write critical appreciation of poetry.

Course Outcomes:

- Students are able to understand the major trends in criticism.
- Students are able to interpret critical concepts.
- Students are able to study the original contributions to literary criticism.
- Students are acquainted with literary and critical movements.
- Students are able to understand the meaning and appreciate the poems critically.

Semester V(Paper VII) (DSE- E11)	
Module I	Introduction to Literary Criticism: 1. Nature of Criticism 2. Function of Criticism
Module II	Classical Criticism: 1. The Concept of Tragedy 2. The Ideal Tragic Hero (From Aristotle's <i>Poetics</i>)
Module III	Neo-classical Criticism: Dr. Samuel Johnson's <i>Preface to Shakespeare</i> (1765)
Module IV	Literary Terms: 1. Symbolism 2. Realism 3. Humour 4. Paradox
Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR	
Semester VI (Paper XII) (DSE- E136)	
Module V	Romantic Criticism: William Wordsworth's Theory of Poetic Diction (From William Wordsworth's <i>Preface to Lyrical Ballads</i>)
Module VI	Victorian Criticism: Matthew Arnold's Touchstone Method (From Matthew Arnold's <i>The Study of Poetry</i>)
Module VII	Modern Criticism:

	T S Eliot's <i>Tradition and Individual Talent</i> (1919)
Module VIII	Practical Criticism: Poetry
Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT	

Division of Teaching Hours 8 Modules x 15 Hours = 120 Hours

Recommended Reading: Semester V and Semester VI

- Abrams, M. H. *A Glossary of Literary Terms* (8th Edition). New Delhi: Akash Press, 2007.
- Alexander, L. G. *Prose and Poetry Appreciation for Overseas Students*. London: Longman Green and Comp. Ltd., 1966.
- Allex, Latter & Rachel, Teubner. *William Wordsworth's Preface to the Lyrical Ballads*. London: Macat Library, 2018.
- Bliss, Perry. *A Study of Poetry*. Kindle Edition, 22 Feb., 2018.
- Butcher, S. C. *Poetics*. New Delhi: Kalyani Publishers, 1978.
- Bywater, Ingram. *Aristotle's Poetics*. Oxford: Atthe Clarendon Press, 1976.
- Cuddon, J. A. *The Penguin Dictionary of Literary Terms and Literary Theory* (4th Edition). London and New York: Penguin, 2000.
- Davis, Joseph, K. Pathea, R Broughton and Michael Wood. *Literature*. Illinois: Scott, Foresman and Comp. Glenviews, 1977.
- Eliot, T.S. *The Sacred Wood – Essays on Poetry and Criticism*. (Seventh edition), 1950.
- Enright, D.J. & Ernst De Chickera. *English Critical Texts: 16th Century to 20th Century*. OUP, 1968.
- Fyfe, Hamilton. *Aristotle's Art of Poetry*. London: OUP, 1940.
- Gray, Martin. *A Dictionary of Literary Terms* (York Handbooks), Pearson Education, 2009.
- Hudson, W. H. *An Introduction to the Study of Literature*. New Delhi: Atlantic, 2007.
- Richards, I. A. *Practical Criticism: A Study of Literary Judgment*. New Delhi: UBS Publishers, 2002.
- Scott James, R. A. *The Making of Literature*. Mumbai: Allied Publishers Pvt. Ltd., 1963.
- Sherbo, Arthur(ed.). *The Yale edition of the works of Samuel Johnson*. Vol.7. New haven: Yale University Press, 1968.
- S. Ramaswami & V. S. Seturaman (ed.) *The English Critical Tradition: An Anthology of English Literary Criticism*, Volume 1,. New Delhi: Macmillan Publishers India Ltd. 1977/2009.
- Seturaman, V. S., C. T. Indra and T. Siraman. *Practical Criticism*. Madras: Macmillan India Ltd., 1995.
- Waugh, Patricia (ed.) *Literary Theory and Criticism: An Oxford Guide*. New York: Oxford University Press, 2006.
- Wimsatt, W. K. and Cleanth Brooks. *Literary Criticism: A Short History*. New Delhi: Oxford and IBH Publishing Company Pvt. Ltd., 1957.
- Wellek, Rene and Austin Warren. *Theory of Literature*. London: Jonathan Cape, 1949.
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Shivaji University, Kolhapur
B. A. Part III
Special English
INTRODUCTION TO LITERARY CRITICISM (CBCS)
Discipline Specific Elective
Semester V (Paper VII) (DSE- E11)
PATTERN OF QUESTION PAPER
From June 2020 onwards

Total Marks: 40

Q1. Objective type Question

- A) Multiple choice questions with four alternatives. 4
- B) Answer the following questions in one word/phrase/sentence each. 4
- (Q1 A and B to be set on topics covering **Module I to IV**)
- (At least one item to be set on each Module)

Q2. Answer the questions in about 250-300 words each.

(A or B to be set on **Module I, II, and III**) 10

Q3. Answer the questions in about 250-300 words each.

(A or B to be set on **Module I, II, and III**) 10

Q3 A. Write short notes on the following: (Any 3 out of 5) 12

(3 to be set on **Module IV** and 2 on **Module I, II, III** not covered in question 2 and 3)

INTRODUCTION TO LITERARY CRITICISM (CBCS)
Semester VI (Paper XII) (DSE- E136)
PATTERN OF QUESTION PAPER
From June 2020 onwards

Total Marks: 40

Q1. Objective type Question

- A) Multiple choice questions with four alternatives. 4
- B) Answer the following questions in one word/phrase/sentence each. 4
- (Q1. A and B to be set on topics covering **Module V to VII**)
- (At least one item to be set on each Module)

Q2. Answer in the questions 250-300 words each.

(A or B to be set on **Module V, VI, and VII**) 10

Q3. Answer the questions in about 250-300 words each.

(A or B to be set on **Module V, VI, and VII**) 10

Q4. Write critical appreciation of the given poem. 12

(with the help of points such as title, theme, content, devices, message, style, rhyme-scheme, diction, type of poem, tone, stanza-pattern, metre, etc. **(Based on Module VIII)**)

EQUIVALENCE

Old Title	New Title
LITERARY CRITICISM AND LITERARY APPRECIATION	INTRODUCTION TO LITERARY CRITICISM

Shivaji University, Kolhapur

B. A.III

English Special

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester V (Paper VIII) (DSE – E12) and Semester VI (Paper XIII) (DSE – E137)

(From June 2020 Onwards)

Course Objectives:

- To make students engaged and curious readers of poetry
- To introduce students to poetry from various cultures and traditions
- To make students understand that poetry gives intellectual, moral and linguistic pleasures
- To make students hear and read poems aloud and to memorize lines

Course Outcomes:

- Students will be able to trace the development of the poetry in English from the days of Shakespeare to the contemporary India.
- Students will be able to appreciate and analyze the poems properly.
- Students will have a fairly comprehensive view of the Western and Eastern poetic tradition and they will be able to relate it to various literary movements.
- Students will have an insight into poetry and they will be able to make a lively and interesting reading.

SEMESTER V (Paper VIII) (DSE – E12)		
MODULE NO.	TITLE OF THE MODULE	NAME OF THE POET
I. Topics For Background Readings:		
	1. Elizabethan Poetry	
	2. Metaphysical Poetry	
	3. Romantic Poetry	
II. Selections from Elizabethan Poetry:		
	1. Sweet Warrior (Sonnet 57)	Edmund Spenser
	2. Sonnet To The Moon	Sir Philip Sydney
	3. Full Many A Glorious Morning... (Sonnet 33)	William Shakespeare
III. Selections from Metaphysical Poetry:		
	1. The Sun Rising	John Donne
	2. The Retreat	Henry Vaughan
	3. The Collar	George Herbert
IV. Selections from Romantic Poetry:		
	1. My Heart Leaps Up	William Wordsworth
	2. The Rime of the Ancient Mariner	S. T. Coleridge
	3. Ozymandias	P. B. Shelley
	4. When We Two Parted	Lord Byron
*Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR		

SEMESTER VI (Paper XIII) (DSE – E137)		
MODULE NO.	TITLE OF THE MODULE	NAME OF THE POET
V. Topics For Background Readings:		
	1. Victorian Poetry	
	2. Modern English Poetry	
	3. Modern Indian English Poetry	
VI. Selections from Victorian Poetry:		
	1. The Lady Of Shallot	Alfred Lord Tennyson
	2. My Last Duchess	Robert Browning
	3. Love Came Down At Christmas	Christiana Rossetti
VII. Selections from Modern English Poetry:		
	1. No Second Troy	W. B. Yeats
	2. The Hollow Men	T. S. Eliot
	3. Tonight I Can Write	Pablo Neruda
VIII. Selections from Modern Indian English Poetry:		
	1. The Professor	Nissim Ezekiel
	2. A Hot Noon in Malabar	Kamala Das
	3. A River	A. K. Ramanujan
	4. A Kind of Happiness	Jayanta Mahapatra
*Note: Semester VI: 10 Marks for internal Evaluation: STUDENTS' GROUP PROJECT		

Division of Teaching Hours: 8 Modules x 15 Hours each= 120 Hours

Recommended Reading: Semester V and Semester VI

Appelbaum, Stanley. *English Romantic Poetry: An anthology*. Dover Publications Inc. 1996.
 Burrow, Colin. *Metaphysical Poetry*. Penguin Classics. 2006.
 Chaudhuri, Roshinka. *A History of Indian Poetry in English*. Cambridge University press. 2016.
 Chaudhuri, Sukanta. *Modern Indian Literature*, New Delhi: OUP, 2004.
 Courthope, W.J. *A History of English Poetry*. Vol.I Macmillan, 1995.
 Craig, W.J. (ed.). *The Complete works of William Shakespeare*. Oxford: OUP., 1905.
 Fenton, James. *An Introduction to English Poetry*. New York: Farrar, Strauss and Giroux, 2004.
 Gardner, Martin, *The Annotated Ancient Mariner*, New York: Clarkson Potter, 1965.
 Harold Bloom and Lionel Trilling. (ed.) *Romantic Prose and Poetry*, New York: OUP, 1973.
 Mitra, Zinia(ed.). *Indian Poetry in English: Critical Essays*. New Delhi: PHI Learning Pvt Ltd., 2012.
 Naik, M.K. *A History of Indian English Literature*. Delhi, 1982.
 Narasimhaiah, C.D., (ed.) *An Anthology of Commonwealth Poetry*, Delhi: Macmillan, 1990.
 Negri, Paul. *English Victorian poetry*. Dover Publications Inc. 1998
 Ramanan, M.G. *Modern English Poetry: A Selection*. New Delhi: Orient Blackswan, 2013.
 Samuel Taylor Coleridge, *Biographia Literaria*, ed. George Watson. London: Everyman, 1993.

Shivaji University, Kolhapur

B. A.III

English Special

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester V (Paper VIII) (DSE – E12)

PATTERN OF QUESTION PAPER

From June 2020 Onwards

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module II, III and IV**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module I**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module II, III or IV**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module I** and two be on **Module II, III or IV**)
-

ENGLISH POETRY (CBCS)

Discipline Specific Elective

Semester VI (Paper XIII) (DSE – E137)

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module VI, VII and VIII**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module V**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **VI, VII or VIII**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module V** and two be on **Module VI, VII or VIII**)
-

EQUIVALENCE

Old Title	New Title
Understanding Poetry	English Poetry

Shivaji University, Kolhapur
B. A. Part III
Special English
ENGLISH DRAMA (CBCS)
Discipline Specific Elective
Semester V (Paper IX) ((DSE – E13) & Semester VI (Paper XIV) (DSE – E138)
From June 2020 onwards

Course Objectives:

- To make students understand different forms of drama
- To enable students to relate drama to their ideological or socio-political contexts
- To help students improve their creative and imaginative faculties through the reading of drama
- To enable students to know about various aspects of the drama

Course Outcomes:

- Students are able to understand different forms of drama.
- Students are able to relate drama to their ideological or socio-political contexts.
- Students are able to improve their creative and imaginative faculties through the reading of drama.
- Students are able to know about various aspects of the drama.

Semester V (Paper IX) ((DSE – E13)

MODULE I

Definition and Elements of Drama

MODULE II

Tragedy as a Form

MODULE III

The Importance of Being Earnest - Oscar Wilde

MODULE IV

Hamlet – William Shakespeare

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Wilde, Oscar. *The Importance of Being Earnest*. New Delhi: General Press, 2018.
Shakespeare, William. *Hamlet*. Penguin Books, 1980.

*Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR

Semester VI (Paper XIV) (DSE – E138)

MODULE V

Types of Drama

MODULE VI

Comedy as a Form

MODULE VII

Nagmandala – Girish Karnad

MODULE VIII

Harvest – Manjula Padmanabhan

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Karnad, Girish. *Nagmandala*. Oxford University Press, 1990.

Padmanabhan, Manjula. *Harvest*. Delhi: Penguin, 1997.

*Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT
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Recommended Reading: Semester V and Semester VI

Aasand, Hardin L. *Stage Directions in Hamlet: New Essays and New Directions*. NJ: Fairleigh Dickinson University Press, 2003.

Babu, Munchi Sarat. *Indian Drama*. New delhi: Prestige Books, 1997.

Bhatt, S.K. *Indian English Drama: A Critical Study*. New Delhi: Sterling Publishers Pvt. Ltd., 1987.

Bloom, Harold. *The Importance of Being Earnest: Modern Critical Interpretations*. Chelsea House Pub., 1988.

Driver, T.F. *Drama and History*. New York: Columbia University Press, 1967.

Ddiya, Jaydipsinh. (ed.) *The Plays of Girish Karnad: Critical Perspectives*. New Delhi: Prestige Books, 1999.

Gargy, Balwant. *Folk Theatre of India*. Culcutta: Rupa & Co., 1991.

Gillespie, Michael Patrick. *The Importance of Being Earnest*. (Norton Critical Editions). W.W.Norton and Co., 2006.

Hibbard, G.R. (ed.) *Hamlet*. OUP: 1988.

Hirsh, James. *Shakespeare and the History of Soliloquies*. NJ: Farleigh Dickinson University Press, 2003.

Joshi, R.G. *Myth in Indian Drama*. Delhi: B.R. Publishing Corporation, 1984.

Kumar, Nand. *Indian English Drama: A Study in Myths*. New Delhi: Sarup and sons, 2003.

MacCary, Thomas. *Hamlet: A Guide to the Play*. London: Greenwood Press, 1988.

Martin, James. *The Meaning of the 21st Century*. New York: Riverhead Penguin, 2007.

Priestley, J.B. *The Art of the Dramatist*. London: Heinemann, 1957.

Rajkumar, K. *Socio-Political Realities in Harvest*. Purna:RHI,Mahmul, 2012.

Robertson, Ronald. *Globalization: Social Theory and Global Culture*. London: Sage, 1992.

Sen,B. *The Importance of Being Earnest*. Unique Publishers,2015.

Styan, J.L. *The Elements of Drama*. Cambridge: Cambridge University Press, 1967.

Vaidyanathan, G. *The Importance of Being Earnest*. New Delhi: Narain Publications, 2018.

Worthen, W.B. (ed.). *Anthology of Drama* (Fourth edition). London: Cengage Learning EMEA, 2004.

Shivaji University, Kolhapur
B. A. Part III
Special English
ENGLISH DRAMA (CBCS)
Discipline Specific Elective
Semester V (Paper IX) ((DSE – E13)

PATTERN OF QUESTION PAPER

(From June 2020 onwards)

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module III and IV**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module I and II**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module III and IV**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module I and II** and two be on **Module III and IV**)
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ENGLISH DRAMA (CBCS)
Discipline Specific Elective
Semester VI (Paper XIV) (DSE – E138)

PATTERN OF QUESTION PAPER

(From June 2020 onwards)

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module VII and VIII**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module V and VI**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **VII and VIII**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module V and VI** and two be on **Module VII and VIII**)
-

EQUIVALENCE

Old Title	New Title
Understanding Drama	English Drama

Shivaji University, Kolhapur
B. A. Part III Special English
ENGLISH NOVEL (CBCS)

Discipline Specific Elective

Semester V (Paper X) ((DSE – E14) & Semester VI (Paper XV) (DSE – E139)

From June 2020 onwards

Course Objectives:

- To make students understand different forms of novel.
- To enable students to relate novels to their ideological or socio-political contexts.
- To help students to improve their creative and imaginative faculties through the reading of novels.
- To enable students to know about various aspects of the novel.

Course Outcomes:

- Students are able to understand different forms of novel.
- Students are able to relate novels to their ideological or socio-political contexts.
- Students are able to improve their creative and imaginative faculties through the reading of novels.
- Students are able to know about various aspects of the novel.

SEMESTER V (Paper X) (DSE – E14)

MODULE I

Rise and Development of the Novel

MODULE II

Aspects of the Novel

MODULE III

The Old Man and the Sea – Ernest Hemingway

MODULE IV

The Power and the Glory – Graham Greene

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Hemingway, Ernest. *The Old Man and the Sea*. New York: Simon & Schuster, 1952.

Greene, Graham. *The Power and the Glory*. New York: Time Reading Special Edition. 1940, 1962.

*Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR

SEMESTER VI (Paper XV) (DSE – E139)

MODULE V

Historical and Psychological Novel

MODULE VI

Satirical Novel and Epistolary novel

MODULE VII

Animal Farm: A Fairy Tale - George Orwell

MODULE VIII

The Guide - R. K. Narayan

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Prescribed Texts:

Orwell, George. *Animal Farm: A Fairy Tale*. New York: Signet Classic, 1996.

Narayan, R. K. *The Guide*. US: Viking Press, 1958.

***Note: Semester VI: 10 Marks for internal Evaluation: STUDENTS' GROUP PROJECT**

Suggested Reading: for Semester V and Semester VI

Auden, W.H. *The Enchafed Flood: The Romantic Econography of the Sea*. New York: Random, 1950.

Abrams, M. H. *A Glossary of Literary Terms* (8th Edition) New Delhi, Akash Press – 2007

Bender, Bert. *Sea Brothers: The Tradition of American Sea Fiction from Moby-Dick to the Present*. Philadelphia: University of Pennsylvania Press, 1988.

Bloom, Harold. *Ernest Hemingway's The Old Man and the Sea: Modern Critical Interpretations*. Cheasea House Publications, 2008.

Bradbury, Malcolm. *The Novel Today*. Glasgow: F. C. Paperbacks, 1982.

Brooks and Warren. *Understanding Fiction*. Prentice Hall, 1959.

Dedria, Bryfonski & Hall, Sharon. *Twentieth Century Literary Criticism: George Orwell*. Michigan: Book Tower, 1979.

Edel, Leon. *The Psychological Novel: 1900-1950*. Ludhiana: Kalyani, 1997.

Forster, E. M. *Aspects of Novel*. London. 1949.

Hynes, Samuel, ed. *Graham Greene: A Collection of Critical Essays*. New Jersey: Prentice Hall, Inc. 1973.

Jones, David P. *Graham Greene*. Edinburgh: Oliver and Boyd. 1963.

Kerala, Calling. *From Eric Blair to George Orwell, Biography*. London: Sage, 2003.

Kermode, Frank. *Sense of an Ending*. OUP, 1967.

Lall, Pamji. *Graham Greene: The Power and the Glory: A Critical Study*. New Delhi: Roma Brothers India Pvt. Ltd. 2005.

Lewis, R.W.B. & Conn, Petr J. ed. *Graham Greene: The Power and the Glory: Text and Criticism*. New York: The Viking Press, 1970.

Lubbock, Percy. *The Craft of Fiction*. London: Jonathan Cape, 1965.

Matz, Jesse. *The Modern Novel: A Short Introduction*. Oxford Blackwell, 2004.

Meyers, Jeffery. *George Orwell: The Critical Heritage*. Routledge, 1997.

Rimmon-Kennan, Shlomith. *Narrative Fiction*. London and New York: Routledge, 2005.

Roy, Ruby. *A Critical Study of R.K. Narayan's Swami and Friends and The Guide*. Delhi: Kalpaz Publications, 2015.

Rees, R. J. *Introduction to English Literature*. London: Macmillan, 1966/1968.

Singh, P.K. *The Novels of R. K. Narayan :A Critical Study*. New Delhi: Atlantic Publishers.

Stade, George, ed. *Six Contemporary British Novelists*. New York: Colombia University Press, 1976.

Subramaniam, K.S. *Graham Greene: A Study of Graham Greene's Works*. Bareilly: Prakash Book Depot, 1978.

Vinson, James, ed. *Contemporary Novelists*. London: St. James Press, 1972.

Watt, Ian. *Rise of the Novel*. London: Penguin, 1957.

Woodcock, George. *20th Century Fiction*. London: The Macmillan Press Ltd., 1983.

Shivaji University, Kolhapur
B. A. Part III
Special English
ENGLISH NOVEL (CBCS)
From June 2020 onwards
PATTERN OF QUESTION PAPER FOR
(Semester V Paper X DSE – E14)

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module III and IV**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module I and II**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module III and IV**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module I and II** and two be on **Module III and IV**)
-

PATTERN OF QUESTION PAPER FOR
(Semester VI Paper XV DSE – E139)

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q. 1 A and B to be set on **Module VII and VIII**)
- Q2. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **Module V and VI**)
- Q3. Answer the following questions in about 250-300 words. (10)
(A or B to be set on **VII and VIII**)
- Q4. Write Short Notes in about 100-150 words each (3out of 4) (12)
(Two be set on **Module V and VI** and two be on **Module VII and VIII**)
-

EQUIVALENCE

Old Title	New Title
Understanding Novel	English Novel

Shivaji University, Kolhapur
B.A. III
English Special
LANGUAGE AND LINGUISTICS (CBCS)
Discipline Specific Elective
Semester V –Paper XI (DSE - E15) & Semester VI – Paper XVI (DSE - E140)
From June 2020 onwards

LANGUAGE AND LINGUISTICS
Semester V –Paper XI (DSE -E 15)

Course Objectives:

- To orient students to the concept of communication.
- To make the students familiar with varieties of the English language.
- To acquaint students with different levels of the study of language.
- To study the basic units of grammar.

Course Outcomes:

- Students know the concept of communication.
- Students are familiar with varieties of the English language.
- Students know different levels of study of the English language.
- Students know basic units of grammar.

Semester V –Paper XI DSE - E 15

MODULE I

Language and Communication

- i. Definitions and characteristics of language
- ii. Human and Animal communication systems (Special reference to Hockett's 7 characteristics of language)

MODULE II

Phonology

MODULE III

Morphology

MODULE IV

Words

*Note: Semester V: 10 Marks for Internal Evaluation: STUDENTS' SEMINAR

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Reference Books :

- Balasubramaniam, T. *A Textbook of English Phonetics for Indian Students*, Delhi: McMillan, 1981.
- Bansal, R.K. & Harrison, J.B., *Spoken English*, Hyderabad: Orient Longman, 2000.
- Hockett, C.F., *A Course in Modern Linguistics*, MacMillan, . 1963.
- Hudson, Richard, *Sociolinguistics*, Cambridge: Cambridge University Press, 1996.
- Jones, Daniel, *English Pronouncing Dictionary*, ELBS Edition.
- Leech et al, *English Grammar Today: a New Introduction*, Hyderabad: McMillan, 2010.
- Lyons, John, *Language and Linguistics: An Introduction*, Cambridge: Cambridge University Press, 1981.
- Quirk, R., Greenbaum, S., Leech, G. & Svartvik, J., *A Comprehensive Grammar of English*, New Delhi: Pearson, 2010.
- Quirk, Randolph & Greenbaum, Sidney, *A University Grammar of English*, New Delhi: Pearson, 2015.
- Radford, A., Atkinson, M., Britain, D., Clahsen, H. & Spencer, A., *Linguistics: An Introduction*, Cambridge: Cambridge University Press, 1999.
- Trask, R. L, *Key Concepts in Language and Linguistics*, London: Routledge, 1999.
- Verma, S.K. & Krishnaswamy, N., *Modern Linguistics*, Hyderabad: Oxford University Press, 1989.
- Velayudhan, S. & Mohanan, K. P., *An Introduction to the Phonetics and Structure of English*, New Delhi: Somaiya Pub. Pvt. Ltd., 1977

QUESTION PAPER PATTERN

From June 2020 onwards

LANGUAGE AND LINGUISTICS (CBCS)
Discipline Specific Elective
Semester V –Paper XI (DSE - E15)

- | | | |
|------|---|------|
| Q. 1 | Objective type | |
| | a) Three term labels | (3) |
| | b) Transcription of words with primary stress | (3) |
| | c) Conversion of the given transcriptions into the conventional spellings | (2) |
| Q.2 | a) Write short notes (2/3) (to be set on Module I) | (10) |
| | b) Morphological Analysis giving labels (2/4) | (4) |
| Q.3 | a) Identification of word formation/morphological processes | (4) |
| | d) Identification of word classes | (4) |
| Q.4. | Write short notes (2/4) (2 each to be set on Module II & IV) | (10) |
-

Shivaji University, Kolhapur
B.A. III
English Special
LANGUAGE AND LINGUISTICS (CBCS)
Discipline Specific Elective
Semester VI – Paper XVI (DSE - E140)
From June 2020 onwards

Course Objectives:

- To acquaint students with structures and functions of words and phrases.
- To enable students to know and identify elements and types of clauses.
- To study Subordination and Coordination.
- To study different ways of structuring clauses.

Course Outcomes:

- Students know words and phrases.
- Students know and identify elements and types of clauses.
- Students know types of sentences.
- Students know the different ways of structuring clauses

Semester VI – Paper XVI (DSE - E140)

MODULE V

Phrases

MODULE VI

Clauses

MODULE VII

Subordination and Coordination

MODULE VIII

Basic and Derived Structures

- i) Inversion / Fronting
- ii. Negation
- iii. Interrogation
- iv. Exclamation
- v. Omission of Certain Elements
(Relative Pronouns, Comparative Clauses, Tag Questions)
- vi. Passivisation
- vii. Subject Raising
- viii. Style Transformation

Note: Semester VI: 10 Marks for Internal Evaluation: STUDENTS' GROUP PROJECT

Division of Teaching Hours: 4 Modules X 15 Periods = 60 Periods

Reference Books :

- Crystal, David, *Linguistics*, London: Penguin Books Ltd., 1974.
 Hockett, C.F., *A Course in Modern Linguistics*, MacMillan, 1963.
 Hudson, Richard, *Sociolinguistics*, Cambridge: Cambridge University Press, 1996.
 Leech et al, *English Grammar Today: A New Introduction*, Hyderabad: McMillan, 2010.
 Lyons, John, *Language and Linguistics: An Introduction*, Cambridge: Cambridge University Press, 1981.
 Palmer, F. G., *Grammar*, London: Penguin Books Ltd., 1973.
 Quirk, R., Greenbaum, S., Leech, G. & Svartvik, J., *A Comprehensive Grammar of English*, New Delhi: Pearson, 2010.
 Quirk, Randolph & Greenbaum, Sidney, *A University Grammar of English*, New Delhi: Pearson, 2015.
 Radford, A., Atkinson, M., Britain, D., Clahsen, H. & Spencer, A., *Linguistics: An Introduction*, Cambridge: Cambridge University Press, 1999.
 Verma, S.K. & Krishnaswamy, N., *Modern Linguistics*, Hyderabad: Oxford University Press, 1989.

QUESTION PAPER PATTERN**From June 2020 onwards****LANGUAGE AND LINGUISTICS (CBCS)****Discipline Specific Elective****Semester VI – Paper XVI (DSE - E140)**

Q. 1	a) Identify elements of clause (S, P, O, C, A)	(4/6)	(4)
	b) Transformation of sentence (to be set on Module VIII)	(4/6)	(4)
Q.2	a) Write short notes. (2 each to be set on Module V & VI)	(2/4)	(10)
	b) Give form and function labels to the underlined phrases.	(4/6)	(4)
Q.3	a) Write short notes (To be set on Module VII)	(2/3)	(10)
	b) Identify the subordinate clauses and state their form and function.	(4/6)	(4)
Q. 4.	Do as directed. (to be set on Module VIII)	(4/6)	(4)

EQUIVALENCE

OLD TITLE	NEW TITLE
THE STRUCTURE AND FUNCTION OF MODERN ENGLISH	LANGUAGE AND LINGUISTICS

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A++' Grade

(CBCS Syllabus with MEME in accordance with NEP)

Syllabus For

B.A. Part-I

English

(Ability Enhancement Compulsory Course)

(Syllabus to be implemented from June, 2022 onwards.)

**B.A. Part I – Ability Enhancement Compulsory Course (AECC1)
(Compulsory English)
(CBCS with MEME in accordance with NEP)
English for Communication Detailed Syllabus
June 2022 onwards**

Course Objectives:

- 1. To acquaint students with communication skills.**
- 2. To inculcate human values among the students through poems and prose.**
- 3. To improve the language competence of the students**

Semester–I AECC1 (Paper-A)

Module I

- A) Developing Vocabulary
- B) On Saying Please-A. G. Gardiner

Module II

- A) Narration
- B) In Passion's Shadow-Mohan Rakesh

Module III

- A. English for General Purposes
- B. The Solitary Reaper-William Wordsworth

Module IV

- A. My School, by Rabindranath Tagore
- B. All the World is a Stage-William Shakespeare
- C. The Street-Kusumagraj

Division of Teaching hours (Total 60 Periods)

1. Communication Skills: 3X12=36 periods
2. Reading Comprehension: 6X4=24 periods

***Note: Semester I: 10 Marks for Internal Evaluation: Home Assignment**

Pattern of Question Paper

SEMESTER I

(AECC1)

(Paper–A)

Total Marks: 40

Q. No	Sub. Q.	Type of Question	Based On Unit	Marks
Q.1	A	Four multiple choice questions with four alternatives to be set.	Prose and poetry units.	04
	B	Answer in one word/ phrase/ sentence each.	Prose and poetry units.	03
Q.2	A	Answer the following questions in three to four sentences each (3 out of 5)	Prose and poetry units	06
	B	Write short notes on the following in about seven to eight sentences each (2 out of 3)	Prose and poetry units	06
Q.3	---	Do as directed: (Based on Module I A Developing Vocabulary) Four different exercises to be set for 2 marks each.	Module I A	08
Q.4	A	Question to be set on English for General Purposes	Module III A	06
	B	Question to be set on Narration	Module II A	07

B.A. Part I– Ability Enhancement Compulsory Course (AECC2)

**(Compulsory English)
(CBCS with MEME in accordance with NEP)
English for Communication Detailed Syllabus
June 2022 onwards**

Semester –II

(AECC2)

(Paper–B)

Module V

- A. Making Inquiries
- B. **The Lost Child**-Mulk Raj Anand

Module VI

- A. Telephonic Communication
- B. **To My Countrymen**- A P J Abdul Kalam

Module VII

- A. Description
- B. **A Village Girl**-Mohan Singh

Module VIII

- A. **My Elder Brother**-Premchand
- B. **The Tiger**-William Blake
- C. **A Poet**-ChandrakantPatil

Division of Teaching hours(Total 60 Periods)

1. CommunicationSkills:3X12=36periods
2. ReadingComprehension:6X4=24periods

***Note: Semester II: 10 Marks for Internal Evaluation: Unit Test**

Pattern of Question Paper



SEMESTER II

(AECC2)

(Paper–B)

Total Marks:40

Q. No	Sub. Q.	Type of Question	Based On Unit	Marks
Q.1	A	Four multiple choice questions with four alternatives to be set.	Prose and poetry units.	04
	B	Answer in one word/phrase/sentence each.	Prose and poetry units.	03
Q.2	A	Answer the following questions in three to four sentences each (3out of 5)	Prose and poetry units	06
	B	Write short notes on the following in about seven to eight sentences each (2out of 3)	Prose and poetry units	06
Q.3	A	Question to be set on Making Inquiries	Module VA	06
	B	Question to be set on Telephonic Communication	Module VI A	05
Q.4	A	Question to be set on Description Describing objects or persons	Module VII A	05
	B	Question to be set on Description Describing places or Daily Routine	Module VII A	05

 <p>Estd. 1962 "A++" Accredited by NAAC (2021) With CGPA 3.52</p>	<p>SHIVAJI UNIVERSITY, KOLHAPUR - 416 004, MAHARASHTRA</p> <p>PHONE : EPABX – 2609000, www.unishivaji.ac.in, bos@unishivaji.ac.in</p> <p>शिवाजी विद्यापीठ, कोल्हापूर - ४१६ ००४, महाराष्ट्र</p> <p>दूरध्वनी - ईपीएबीएक्स - २६०९०००, अभ्यासमंडळे विभाग - ०२३१-२६०९०९४</p>	

Ref. No./SU/BOS/Humanities/541

Date :19/07/2023

To,

The Principal,
All Concerenced Affiliated Colleges/Institutions,
Shivaji University, Kolhapur

Subject : Regarding syllabi of B. A. Part II (sem. III & IV) degree programme
under the Faculty of Humanities as per National Education Policy, 2020 (NEP)

Sir/Madam,

With reference to the subject mentioned above I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi, equivalence and nature of question paper of B. A. Part II (Sem. III & IV) under the Faculty of Humanities as per National Education Policy, 2020. (NEP)

English (Comp.)	English (Opt.)	Linguistics (I.D.S.)	Sanskrit	Kannada
Business Administration	Marathi	Ardhamagadhi	Hindi	Urdu
S.P. & Comm. Corresp.	Sociology	Political Science	Psychology	Economics
Industrial Psychology	Geography	Human Development	Philosophy	History
Defence Study (Entire)				

This syllabi shall be implemented from the academic year 2023-24 onwards . A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

For students of Distance Education this syllabi be implemented from the academic yerar 2023-24.

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully

(Dr. S. M. Kubal)

Dy. Registrar

Encl : As above

Copy to,

For Information and necessary action.

Dean, Faculty of Humanities.	Computer Center/I. T. Cell.
Chairman, B.O.S./Ad-hoc oard under faculty of Humanities.	Eligibility Section.
Director, Board of Examinations & Evaluation	P. G. Seminar Section.
Appointment Section A & B	Distance Education Section.
B. A. Exam. Section.	Affiliation Section (T. 1 & T 2)
P. G. Admission Section.	



Estd. 1962

Accredited by with NAAC 'A++' Grade

with CGPA 352

Faculty of Humanities

CHOICE BASED CREDIT SYSTEM

CBCS Syllabus (Revised) with MEME in accordance with

NEP, 2020

for

B. A. Part II (Sem III & IV)

English (Discipline Specific Core)

Literature and Cinema (Paper No. III & V)

Partition Literature (Paper No. IV & VI)

(Revised Syllabus to be implemented from June, 2023 onwards)

**B. A. Part- II (Semester- III & IV) English Course Structure
From June 2023
Equivalence Table**

B. A. Part- II (Sem. - III)

Paper No.	Paper title of Old Syllabus	Paper No.	Paper title of New Syllabus
DSC- C 5 Paper No. III	Literature and Cinema	DSC – C5 Paper No. III	Literature and Cinema
DSC- C 6 Paper No. IV	Partition Literature	DSC- C 6 Paper No. IV	Partition Literature

B. A. Part- II (Sem- IV)

Paper No.	Paper title of Old Syllabus	Paper No.	Paper title of New Syllabus
DSC- C 29 Paper No. V	Literature and Cinema	DSC – C 29 Paper No. V	Literature and Cinema
DSC- C 30 Paper No. VI	Partition Literature	DSC- C 30 Paper No. VI	Partition Literature

B. A. Part II
(Discipline Specific Core) (DSC-C5)
English (Paper III) (Semester III)
LITERATURE AND CINEMA (CBCS)
CBCS with MEME in accordance with NEP
(To be introduced from June 2023)

Course Objectives:

- 1.To introduce film and its relationship to literature to the students.
- 2.To acquire film literacy through a working knowledge of basic film terminology.
- 3.To develop critical approaches to engage with film adaptations.
- 4.To establish a clear understanding of literature through film adaptations of literary texts.
- 5.To introduce the students to the issues and practices of cinematic adaptations.

Course Outcomes (COs):

1. Students are introduced with film and its relationship to literature.
2. Students will be able to acquire film literacy through a working knowledge of basic film terminology.
3. Students will be able to analyze film adaptations critically.
4. Students' understanding of literature through film adaptations of literary texts will be developed.
5. Students are introduced with the issues and practices of cinematic adaptations.

Detailed Syllabus (Sem. III, P. No. III)

June 2023 Onwards

Module I

Theories of Adaptation

Module II

Adaptation as Interpretation

Module III

William Shakespeare's Comedy of Errors and its Adaptation Angoor (dir. Gulzar, 1982)

Module IV

William Shakespeare's Comedy of Errors and its Adaptation Angoor (dir. Gulzar, 1982)

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

❖ **Each module carries 1 credit**

Prescribed Texts:

Shakespeare, William. The Comedy of Errors, ed. Wells (Oxford, 1995).

William Shakespeare's Comedy of Errors and its Adaptation Angoor (dir. Gulzar, 1982)

Suggested Reading:

Linda Hutcheon, 'On the Art of Adaptation', Daedalus, vol. 133, (2004).

Thomas Leitch, 'Adaptation Studies at Crossroads', Adaptation, 2008, vol.1, no.1, pp. 63-77.

Poonam Trivedi, 'Filmi Shakespeare', Litfilm Quarterly, vol. 35, issue 2, 2007.

Tony Bennett and Janet Woollacott, 'Figures of Bond', in Popular Fiction: Technology,

Ideology, Production, Reading, ed. Tony Bennet (London and New York: Routledge, 1990).

Deborah Cartmell and Imelda Whelehan, eds., The Cambridge Companion to Literature on

Screen (Cambridge: Cambridge University Press, 2007).

John M. Desmond and Peter Hawkes, Adaptation: Studying Film and Literature (New York:

McGraw-Hill, 2005).

Linda Hutcheon, *A Theory of Adaptation* (New York: Routledge, 2006).

J.G. Boyum, *Double Exposure* (Calcutta: Seagull, 1989).

B. Mcfarlens, *Novel to Film: An Introduction to the Theory of Adaptation* (Clarendon University Press, 1996).

B. A. Part II
(Discipline Specific Core) (DSC-C5)
English (Paper III) (Semester III)
LITERATURE AND CINEMA(CBCS)
June 2023 Onwards
Pattern of Question Paper

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives (4)
B) Answer the following questions in one word/ phrase/sentence each.
(Q. 1 A and B to be set on Module III and IV) (4)
Q.2. Answer the following questions in about 250-300 words (8)
(A or B on Module I and II)
Q.3. Answer the following questions in about 250-300 words (8)
(A or B on Module III and IV)
Q.4. Write Short Notes in about 100-150 words each (4 out of 6) (16)
(three to be set on Module I, II, and three on Module III, IV)

Suggestions for Q.3 and Q.4:

- A film/book review of the prescribed film/text
- Comparative study of the text and film adaptation based on technique, cinematic liberty, distortion, plot, characterization, language, theme, etc.
- From page to stage difference between the textual aesthetics and film aesthetics
- Questions based on the theory of adaptation
- Structural elements of the text and the film
- Questions based on text and context

(10 marks for Internal Evaluation – Group Activity e.g. Group Discussion, Skit Performance, Script Writing, Wallpaper Presentation, Quiz, etc.)

B. A. Part II
(Discipline Specific Core) (DSC-C29)
English (Paper V) (Semester IV)
LITERATURE AND CINEMA (CBCS)
(To be introduced from June 2023)

Course Objectives:

- 1.To introduce film and its relationship to literature to the students
- 2.To acquire film literacy through a working knowledge of basic film terminology
- 3.To develop critical approaches to engage with film adaptations
- 4.To establish a clear understanding of literature through film adaptations of literary texts
- 5.To introduce students to the issues and practices of cinematic adaptations

Course Outcomes (COs):

1. Students are introduced with film and its relationship to literature.
2. Students will be able to acquire film literacy through a working knowledge of basic film terminology.
3. Students will be able to analyze film adaptations critically.
4. Students' understanding of literature through film adaptations of literary texts will be developed.
5. Students are introduced with the issues and practices of cinematic adaptations.

Detailed Syllabus (Sem. IV P. No. V)

June 2023 Onwards

Module I

Transformation and Transposition

Module II

Hollywood and 'Bollywood'

Module III

Chetan Bhagat's Five Point Someone and its Adaptation 3 Idiots (dir. Rajkumar Hirani, 2009)

Module IV

Chetan Bhagat's Five Point Someone and its Adaptation 3 Idiots (dir. Rajkumar Hirani, 2009)

Division of Teaching: 4 X 15 Periods = 60 Periods

❖ **Each module carries 1 credit**

Prescribed Text:

Bhagat, Chetan, Five Points Someone. New Delhi: Rupa & Co. 2004.
Chetan Bhagat's Five Point Someone and its Adaptation 3 Idiots (dir. Rajkumar Hirani, 2009)

Suggested Reading:

Linda Hutcheon, 'On the Art of Adaptation', Daedalus, vol. 133, (2004).
Thomas Leitch, 'Adaptation Studies at Crossroads', Adaptation, 2008, vol.1, no.1, pp. 63-77.

Poonam Trivedi, 'Filmi Shakespeare', Litfilm Quarterly, vol. 35, issue 2, 2007.

Tony Bennett and Janet Woollacott, 'Figures of Bond', in Popular Fiction: Technology,

Ideology, Production, Reading, ed. Tony Bennet (London and New York: Routledge, 1990).

Deborah Cartmell and Imelda Whelehan, eds., The Cambridge Companion to Literature on

Screen (Cambridge: Cambridge University Press, 2007).

John M. Desmond and Peter Hawkes, Adaptation: Studying Film and

Literature (New York:McGraw-Hill, 2005).

Linda Hutcheon, A Theory of Adaptation (New York: Routledge, 2006).

J.G. Boyum, Double Exposure (Calcutta: Seagull, 1989). B. Mcfarlens,
Novel to Film: An Introduction to the Theory of Adaptation (Clarendon
University Press, 1996).

Biswas Mun Mun Das, "Depiction of Youth Culture in Chetan Bhagat's
Five Point Someone"

The Criterion: An International Journal in English, Vo.4, Issue-II, April 2013,
<http://www.the-criterion.com/V4/n2/Mun.pdf>

B. A. Part II

(Discipline Specific Core) (DSC-C29)

English (Paper V) (Semester IV)

LITERATURE AND CINEMA (CBCS)

June 2023 Onwards

Pattern of Question Paper

Marks: 40

- Q1. A) Four multiple choice questions with four alternatives [4]
B) Answer the following questions in one word/ phrase/sentence
 Q. 1 A and B to be set on Module III and IV) [4]
Q2. Answer the following questions in about 250-300 words [8]
 (A or B on Module I and II)
Q3. Answer the following questions in about 250-300 words [8]
 (A or B on Module III and IV)
Q4. Write Short Notes in about 100-150 words each (4 out of 6) [16]
 (3 to be set on Module I, II, & 3 on Module III, IV)

Suggestions for Q.3 and Q.4:

- A film/book review of the prescribed film/text
- Comparative study of the text and film adaptation based on technique, cinematic liberty, distortion, plot, characterization, language, theme, etc.
- From page to stage difference between the textual aesthetics and film aesthetics
- Questions based on the theory of adaptation
- Structural elements of the text and the film
- Questions based on text and context

(10 marks for Internal Evaluation – Oral Examination)

B. A. Part II
(Discipline Specific Core) (DSC-C6)
English (Paper IV) (Semester III)
PARTITION LITERATURE (CBCS with MEME in accordance with NEP)

Course Objectives:

- To create an awareness of the partition scenario among the students
- To explain the hidden human dimensions of the partition to the students
- To elaborate on the impact of partition on society

Course Outcomes (COs):

- The students become aware of causes and effects of the partition of India.
- The students understand the hidden human dimensions of the partition.
- The students realize and elaborate the impact of partition on society.

Detailed Syllabus
June 2023 Onwards

Module I

Partition: Causes and Effects

Module II

Communal conflicts and Violence

Module III

Khushwant Singh's A Train to Pakistan

Module IV

Khushwant Singh's A Train to Pakistan

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

❖ Each module carries 1 credit

Prescribed Text:

Singh, Khushwant. A Train to Pakistan. New Delhi: Ravi Dayal Publishers, 1956.

Suggested Reading:

Ritu Menon and Kamala Bhasin, 'Introduction', in Borders and Boundaries (New Delhi: Kali for Women, 1998).

Sukirta P. Kumar, Narrating Partition (Delhi: Indialog 2004).

Urvashi Butalia, The Other Side of Silence: Voices from the Partition of India (New Delhi: Kali for Women, 2000).

More, D.R. The Novels on the Indian Partition, Jaipur, Shruti Publication, 2008.

Sigmund Freud, 'Mourning and Melancholia', in The Complete Psychological Works of Sigmund Freud, tr. James Strachey (London: Hogarth Press, 1953) pp.3041-53.

Beniwal, Anup. Representing Partition: History, Violence and Narration. Delhi: Shakti Book House. 2005.

Bhalla, Alok. Partition Dialogues: Memories of a Lost Home. New Delhi: Oxford University Press. 2006.

Sharma, V.P. "Communalism and its Motifs in three Post Independence Novels: Khushwant Singh's *A Train to Pakistan*, Bhisham Sahni's *Tamas* and Chaman Nahal's *Azadi*," *Recent Indian English Literature*. Ed. S.D. Sharma, Karnal: Natraj Publishing House, 1998. Print.

Shyam. M. Asnani. "The Theme of Partition in the Indo-English Novel." *New Dimensions of Indian English Novel*. New Delhi: Doaba House Publication, 1988.38-50. Print.

B. A. Part II
(Discipline Specific Core) (DSC-C6)
Semester III (Paper IV)
PARTITION LITERATURE
(CBCS with MEME in accordance with NEP)
June 2023 Onwards
Pattern of Question Paper for (Paper IV)

Total Marks: 40

- Q.1. A) Multiple Choice Questions with four alternatives. (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q.1 A and B to be set on Module III and IV)
- Q.2.A) Answer the following question in about 250-300words. (8)
OR
B) Answer the following question in about 250-300words.
(A and B to be set on Module I and II)
- Q.3. A) Answer the following question in about 250-300words. (8)
OR
B) Answer the following question in about 250-300words.
(A and B to be set on Module III and IV)
- Q.4 A) Write short notes in about 100-150words each: (4 out of 6) (16)
(3 to be set on Module I and II and 3 to be set on Module III and IV)

***Note: Semester III: 10 Marks for Internal Evaluation: Group Activity (e.g. group discussion, poster presentation, wall paper, Partition film review writing, etc.)**

B. A. Part II
(Discipline Specific Core) (DSC-C30)
English (Paper VI) (Semester IV)

PARTITION LITERATURE (CBCS with MEME in accordance with NEP)

Course Objectives:

- To create an awareness of the partition scenario among the students
- To explain the hidden human dimensions of the partition to the students
- To elaborate on the impact of partition on society

Course Outcomes (COs):

- The students become aware of causes and effects of the partition of India.
- The students understand the hidden human dimensions of the partition.
- The students realize and elaborate the impact of partition on society.

Detailed Syllabus
June 2023 Onwards

Module I

Impact of Partition on Women

Module II

Home and Exile

Module III

Short Stories:

Toba Tek Singh - Saadat Hasan Manto

The Final Solution - Manik Bandopadhyay

Module IV

Short Stories:

Defend Yourself Against Me - Bapsi Sidhwa

A Leaf in the Storm - Lalithambika Antharjanam

Division of Teaching: 4 Modules X 15 Periods = 60 Periods

❖ Each module carries 1 credit

Short Stories Prescribed From:

Saadat Hasan Manto, "Toba Tek Singh", in Black Margins: Manto, tr. M. Asaduddin (New Delhi: Katha, 2003) pp. 212–20.

Manik Bandhopadhyay, 'The Final Solution', tr. Rani Ray, Mapmaking: Partition Stories from Two Bengals, ed. Debjani Sengupta (New Delhi: Srishti, 2003) pp. 23– 39.

Sidhwa, Bapsi. "Defend Yourself Against Me." in And the World Changed: Contemporary Stories by Pakistani Women, ed. M. Shamsie, 27–52. New York: The Feminist Press, 2008.

Lalithambika Antharjanam, "A Leaf in the Storm", tr. K. Narayana Chandran, in Stories about the Partition of India. ed. Alok Bhalla (New Delhi: Manohar, 2012) pp. 137–45.

Suggested Reading:

Ritu Menon and Kamala Bhasin, 'Introduction', in Borders and Boundaries (New Delhi: Kali for

Women, 1998).

Sukirta P. Kumar, *Narrating Partition* (Delhi: Indialog 2004).

Urvashi Butalia, *The Other Side of Silence: Voices from the Partition of India* (New Delhi: Kali for Women,2000).

More, D.R. *The Novels on the Indian Partition*, Jaipur, Shruti Publication, 2008.

Sigmund Freud, 'Mourning and Melancholia', in *The Complete Psychological Works of Sigmund Freud*, tr. James Strachey (London: Hogarth Press,1953) pp.3041-53.

Beniwal, Anup. *Representing Partition: History, Violence and Narration*. Delhi: Shakti Book House. 2005.

Bhalla, Alok. *Partition Dialogues: Memories of a Lost Home*. New Delhi: Oxford University Press. 2006.

Sharma, V.P. "Communalism and its Motifs in three Post Independence Novels: Khushwant Singh's *A Train to Pakistan*, Bhisham Sahni's *Tamas* and Chaman Nahal's *Azadi*," *Recent Indian English Literature*. Ed. S.D. Sharma, Karnal: Natraj Publishing House, 1998. Print.

Shyam. M. Asnani. "The Theme of Partition in the Indo-English Novel." *New Dimensions of Indian English Novel*. New Delhi: Doaba House Publication, 1988.38- 50. Print.

B. A. Part II
(Discipline Specific Core) (DSC- C30)
Semester IV (Paper VI)
PARTITION LITERATURE
(CBCS with MEME in accordance with NEP)
June 2023 Onwards
Pattern of Question Paper for (Semester IV) and (Paper VI)

Total Marks: 40

- Q.1. A) Multiple Choice Questions with four alternatives. (4)
B) Answer the following questions in one word/ phrase/sentence each. (4)
(Q.1 A and B to be set on Module III and IV)
- Q.2.A) Answer the following question in about 250-300words. (8)
OR
B) Answer the following question in about 250-300words.
(A and B to be set on Module I and II)
- Q.3. A) Answer the following question in about 250-300words. (8)
OR
B) Answer the following question in about 250-300words.
(A and B to be set on Module III and IV)
- Q.4 A) Write short notes in about 100-150words each: (4 out of 6) (16)
(3 to be set on Module I and II and 3 to be set on Module III and IV)

***Note: Semester III: 10 Marks for Internal Evaluation: Oral Examination**

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B.A. Part - I

Hindi

(Syllabus to be implemented from June, 2018 onwards.)

शिवाजी विश्वविद्यालय, कोल्हापुर (महाराष्ट्र)

हिंदी अध्ययन मंडल

प्रथम वर्ष (कला, वाणिज्य एवं अन्य विद्या शाखा)

GENERIC ELECTIVE COURSE (GEC)

हिंदी (अनिवार्य)

(शैक्षिक वर्ष : 2018–19, 2019–20 तथा 2020–21)

(प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की
मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

प्रथम सत्र

प्रश्नपत्र – A : सृजनात्मक लेखन

उद्देश्य :

- हिंदी भाषा तथा व्याकरण का अध्ययन कराना।
- सृजनात्मक लेखन की विविध विधाओं (कविता, कहानी, यात्रावृत्त, रिपोर्ताज, साक्षात्कार, दृश्य-साहित्य, पत्रकारिता) से परिचित कराना।
- सृजनात्मक लेखन के विविध क्षेत्रों का परिचय कराना।
- सृजनात्मक लेखन के विविध क्षेत्रों के महत्त्व तथा उपयोगिता से परिचित कराना।

अध्यापन पद्धति :-

- व्याख्यान विश्लेषण।
- चर्चा-संगोष्ठी।
- संपादकों, उपसंपादकों तथा विद्वानों से साक्षात्कार।
- आई.सी.टी. का प्रयोग।

अध्ययनार्थ विषय :

इकाई –I हिंदी भाषा तथा व्याकरण : सामान्य परिचय

व्याकरण : लिंग, वचन, कारक, विराम चिह्न, वाक्य के प्रकार,
मानक वर्तनी

इकाई –II कविता, कहानी तथा यात्रावृत्त लेखन: स्वरूप, महत्त्व तथा
उपयोगिता ।

कविता, कहानी तथा यात्रावृत्त के क्षेत्र— सामाजिक, राजनीतिक,
सांस्कृतिक ।

इकाई –III रिपोर्टाज और साक्षात्कार लेखन: स्वरूप, महत्त्व तथा उपयोगिता ।

रिपोर्टाज के क्षेत्र— वाणिज्य, विज्ञान, तकनीकी ।

रिपोर्टाज के क्षेत्र— साहित्य तथा सामाजिक ।

इकाई –IV दृश्य साहित्य लेखन तथा पत्रकारिता : स्वरूप, महत्त्व तथा
उपयोगिता ।

दृश्य साहित्य लेखन के क्षेत्र— छायाचित्र, कार्टून (प्रश्नपत्र में
संबंधित मद्दों पर चित्र दिया जाएगा) ।

पत्रकारिता के प्रकार : खेल पत्रकारिता, सिनेमा पत्रकारिता,
ग्रामीण पत्रकारिता ।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन –	अंक
प्रश्न 1 – समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2 – समग्र पाठ्यक्रम पर टिप्पणियाँ (तीन में से दो)	10
प्रश्न 3 – समग्र पाठ्यक्रम पर लघुत्तरी प्रश्न (पाँच में से तीन)	15
प्रश्न 4 – समग्र पाठ्यक्रम पर दीर्घोत्तरी प्रश्न: अ तथा ब – दोनों अनिवार्य (अंतर्गत विकल्प के साथ)	15

संदर्भ ग्रंथ :

- हिंदी भाषा – महावीर प्रसाद द्विवेदी
- हिंदी भाषा – इतिहास और स्वरूप– राजमाटी शर्मा
- मानक हिंदी – ब्रजमोहन
- संक्षिप्त हिंदी व्याकरण – कामता प्रसाद गुरु
- व्यावहारिक हिंदी व्याकरण– डॉ.हरदेव बाहरी
- आधुनिक हिंदी साहित्य का इतिहास– बच्चनसिंह
- साहित्यिक विधाएँ : पुनर्विचार – डॉ.हरिमोहन
- साहित्यिक विधाएँ : सैद्धांतिक पक्ष – डॉ.मधु धवन
- सुगम हिंदी व्याकरण – धर्मपाल शास्त्री
- हिंदी पत्रकारिता : स्वरूप एवं संदर्भ– डॉ.विनोद गोदरे
- व्यावहारिक हिंदी शुद्ध प्रयोग– डॉ.ओमप्रकाश
- व्यावहारिक हिंदी – रवींद्रनाथ श्रीवास्तव, भोलानाथ तिवारी
- खेल पत्रकारिता – सुशील दोशी, सुरेश कौशिक

द्वितीय सत्र

प्रश्नपत्र – B : व्यावहारिक लेखन

उद्देश्य :

- हिंदी के विविध रूपों का परिचय कराना।
 - प्रयोजनमूलक हिंदी का परिचय कराना।
 - पत्राचार का स्वरूप तथा प्रकारों का परिचय कराना।
 - अनुवाद, विज्ञापन और समाचार लेखन से परिचित कराना।
 - व्यावहारिक लेखन का महत्त्व तथा उपयोगिता से परिचित कराना।
-

अध्ययनार्थ विषय :

इकाई –I हिंदी के विविध रूप तथा प्रयोजनमूलक हिंदी : मातृभाषा, संपर्क भाषा, राजभाषा, सर्जनात्मक भाषा।

कार्यालयीन हिंदी, वाणिज्यिक हिंदी, विज्ञापन की हिंदी, वैज्ञानिक तथा तकनीकी साहित्य की हिंदी।

इकाई –II पत्राचार : सामान्य परिचय

रोजगार प्राप्ति हेतु आवेदन पत्र (सरकारी, अर्ध सरकारी तथा गैर सरकारी)।

इकाई –III अनुवाद और विज्ञापन : स्वरूप, प्रकार, महत्त्व, उपयोगिता।

अनुवाद कार्य तथा विज्ञापन लेखन (विज्ञापन से संबंधित)

इकाई –IV समाचार लेखन तथा पत्रकारिता: स्वरूप, उद्देश्य तथा तत्त्व।

समाचार लेखन और पत्रकारिता : संपादन तथा साजसज्जा।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन –	अंक
प्रश्न 1 – समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2 – समग्र पाठ्यक्रम पर टिप्पणियाँ (तीन में से दो)	10
प्रश्न 3 – समग्र पाठ्यक्रम पर लघुत्तरी प्रश्न (पाँच में से तीन)	15
प्रश्न 4 – समग्र पाठ्यक्रम पर दीर्घोत्तरी प्रश्न अ तथा ब – दोनों अनिवार्य	15
– संदर्भ ग्रंथ	

- समाचार एवं प्रारूप लेखन – डॉ.रामप्रकाश, डॉ.दिनेश गुप्त
- प्रशासनिक एवं कार्यालयीन हिंदी – डॉ.रामप्रकाश, डॉ.दिनेश गुप्त
- समाचार संपादन – कमल दीक्षित, महेश दर्पण
- अनुवाद एवं संचार – डॉ. पूरनचंद टंडन
- विज्ञापन कला– डॉ.मधु धवन
- आधुनिक विज्ञापन – प्रेमचंद पातंजलि
- आधुनिक विज्ञापन और जन संपर्क – डॉ.तारेश भाटिया

- व्यावहारिक हिंदी और रचना – डॉ.कृष्णकुमार गोस्वामी
- प्रयोजनमूलक हिंदी विविध आयाम– डॉ.मनोज पांडेय
- व्यावसायिक संप्रेषण – डॉ.अनुपचंद्र पु. भयाणी
- प्रयोजनमूलक हिंदी – डॉ.नरेश मिश्र
- भाषा विज्ञान एवं हिंदी – डॉ.नरेश मिश्र
- प्रामाणिक आलेखन और टिप्पण – प्रो.एम. ए. विराज

शिवाजी विश्वविद्यालय, कोल्हापुर (महाराष्ट्र)

हिंदी अध्ययन मंडल

प्रथम वर्ष कला— हिंदी (विशेष ऐच्छिक)

DISCIPLINE SPECIFIC ELECTIVE COURSE (DSEC)

(शैक्षिक वर्ष : 2018–19, 2019–20 तथा 2020–21)

(प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की
मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

उद्देश्य :

1. छात्रों की हिंदी साहित्य के प्रति रुचि बढ़ाना तथा छात्रों को साहित्य की विविध विधाओं से परिचित कराना।
2. छात्रों को हिंदी के प्रतिनिधि गद्यकारों एवं कवियों से परिचित कराना।
3. छात्रों में हिंदी भाषा के श्रवण, पठन एवं लेखन की क्षमताओं को विकसित कराना।
4. निबंध, कहानी, रेखाचित्र, एकांकी, रिपोर्ताज, संस्मरण, व्यंग्य आदि विधाओं के माध्यम से छात्रों का भावात्मक विकास कराना।
5. छात्रों में नैतिक मूल्य, राष्ट्रीय मूल्य एवं उत्तरदायित्व के प्रति आस्था निर्माण करना।
6. छात्रों में राष्ट्र के प्रति प्रेम, राष्ट्रीय ऐक्य स्थापना एवं सामाजिक प्रतिबद्धता हेतु राष्ट्रभाषा हिंदी का प्रचार-प्रसार करना।
7. छात्रों की विचार क्षमता तथा कल्पनाशीलता को बढ़ावा देना।

अध्यापन पद्धति :

1. व्याख्यान तथा विश्लेषण ।
 2. सस्वर काव्य पाठ, प्रकट वाचन, संवाद ।
 3. ग्रंथालयों के माध्यम से संबंधित लेखकों, कवियों की मौलिक कृतियों से छात्रों का परिचय ।
 4. दृक-श्राव्य साधनों/माध्यमों का प्रयोग ।
 5. संगोष्ठी, स्वाध्याय तथा गुटचर्चा ।
 6. पी.पी.टी./भाषा प्रयोगशाला का प्रयोग ।
 7. विशेषज्ञों के व्याख्यान, साक्षात्कार तथा प्रश्नावली ।
-

पाठ्यपुस्तक – साहित्य जगत्

संपादक एवं प्रकाशक,

शिवाजी विश्वविद्यालय, कोल्हापुर ।

प्रथम सत्र : विशेष ऐच्छिक प्रश्नपत्र-II

हिंदी कविता

अध्ययनार्थ पद्यपाठ :

- इकाई -I
1. भिक्षुक – निराला
 2. बालिका का परिचय– सुभद्राकुमारी चौहान
 3. तेरी खोपड़ी के अंदर – नागार्जुन
 4. वसंत आ गया– अज्ञेय

इकाई –II 5. अजीब–सी मुश्किल – कुंवर नारायण

6. पैदल आदमी– रघुवीर सहाय

7. बीस साल बाद – धूमिल

8. घर की याद – राजेश जोशी

इकाई –III 9. हो गई है पीर – दुष्यंतकुमार

10. माँ जब खाना परोसती थी – चंद्रकांत देवताले

11. एकलव्य – किर्ति चौधरी

12. बेजगह – अनामिका

इकाई –IV 13. नया बैंक – मंगलेश डबराल

14. सत्ता – उदय प्रकाश

15. स्त्री मुक्ति की मशाल – रजनी तिलक

16. बाजार – जया जादवानी

प्रश्नपत्र का स्वरूप तथा अंक विभाजन :	अंक
प्रश्न 1 – समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2 – समग्र पाठ्यक्रम पर ससंदर्भ स्पष्टीकरण (तीन में से दो)	10
प्रश्न 3 – समग्र पाठ्यक्रम पर लघुत्तरी प्रश्न (पाँच में से तीन)	15
प्रश्न 4 – समग्र पाठ्यक्रम पर दीर्घोत्तरी प्रश्न अ तथा ब – दोनों अनिवार्य (अंतर्गत विकल्प के साथ)	15

द्वितीय सत्र : विशेष ऐच्छिक प्रश्नपत्र –II

हिंदी गद्य साहित्य

अध्ययनार्थ गद्य पाठ :

इकाई –I 1. जीवन और शिक्षण (निबंध) – विनोबा भावे

2. सूरदास (निबंध) – बाबू श्यामसुंदर दास

3. विज्ञापन युग (निबंध) – मोहन राकेश

इकाई –II 4. भगत की गत (व्यंग्य) – हरिशंकर परसाई

5. फुटपाथ के कलाकार (व्यंग्य) – शरद जोशी

6. गोशाला चारा और सरपंच (व्यंग्य) – शंकर पुणतांबेकर

इकाई –III 7. पंचलाईट (कहानी) – फणीश्वरनाथ 'रेणु'

8. चीफ की दावत (कहानी) – भीष्म सहानी

9. अकेली (कहानी) – मन्नू भंडारी

इकाई –IV 10. संस्कार और भावना (एकांकी) – विष्णु प्रभाकर

11. रजिया (रेखाचित्र) – रामवृक्ष बेनीपुरी

12. किसान के घर से (यात्रा संवाद) – मधु कांकरिया

प्रश्नपत्र का स्वरूप तथा अंक विभाजन :	अंक
प्रश्न 1 — समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2 — समग्र पाठ्यक्रम पर ससंदर्भ स्पष्टीकरण (तीन में से दो)	10
प्रश्न 3 — समग्र पाठ्यक्रम पर टिप्पणियाँ (पाँच में से तीन)	15
प्रश्न 4 — समग्र पाठ्यक्रम पर प्रश्न अ तथा ब — दोनों अनिवार्य (अंतर्गत विकल्प के साथ)	15

संदर्भ ग्रंथ—

1. हिंदी निबंधों का शैलीगत अध्ययन — डॉ.मु.ब.शहा
2. कहानी स्वरूप और संवेदना — राजेंद्र यादव
3. शरद जोशी का व्यंग्य साहित्य — डॉ.सूर्यकांत शिंदे
4. रेणु का कथा साहित्य — सुरेश चंद्र मेहरोत्रा
5. कथाकार भीष्म सहानी — डॉ.कृष्णा पटेल
6. मोहन राकेश और उनका साहित्य — डॉ.कविता शनवारे
7. एकांकीकार विष्णु प्रभाकर — डॉ.संजय चोपड़े
8. हिंदी व्यंग्य परंपरा में शंकर पुणतांबेकर का योगदान — डॉ.अनुपमा प्रभुणे
9. रामवृक्ष बेनीपुरी और उनका साहित्य — डॉ.गजानन चव्हाण
10. हिंदी के आधुनिक प्रतिनिधि कवि — द्वारिकाप्रसाद सक्सेना
11. नागार्जुन की कविता — अजय तिवारी
12. क्रांतिकारी कवि निराला — डॉ.बच्चनसिंह
13. धूमिल की काव्य यात्रा — मंजू अग्रवाल
14. नई कविता के प्रमुख हस्ताक्षर — डॉ.संतोषकुमार तिवारी
15. अज्ञेय की कविता : एक मूल्यांकन — डॉ.चंद्रकांत बांदिवडेकर

शिवाजी विश्वविद्यालय, कोल्हापुर (महाराष्ट्र)

हिंदी अध्ययन मंडल

जून, 2018 से पुनर्रचित पाठ्यक्रम की समकक्षता			
प्रथम वर्ष (कला, वाणिज्य, विज्ञान एवं अन्य विद्याशाखा)			
	हिंदी (आवश्यक)		हिंदी (अनिवार्य) (GEC)
अ.क्र.	पुराना पाठ्यक्रम	अ.क्र.	नया पाठ्यक्रम
1	सत्र – 1 अभ्यासपत्रिका क्र. A प्रयोजनमूलक हिंदी और कहानी साहित्य	1	सत्र – 1 अभ्यासपत्रिका क्र. A सर्जनात्मक लेखन
2	सत्र – 2 अभ्यासपत्रिका क्र. B प्रयोजनमूलक हिंदी और कहानी साहित्य	2	सत्र – 2 अभ्यासपत्रिका क्र. B व्यावहारिक लेखन
बी.ए. भाग – 1			
	हिंदी (ऐच्छिक)		हिंदी (विशेष ऐच्छिक) (DSEC)
1	सत्र – 1 अभ्यासपत्रिका क्र. 1 आधुनिक हिंदी साहित्य	1	सत्र – 1 अभ्यासपत्रिका क्र. 1 हिंदी कविता
2	सत्र – 2 अभ्यासपत्रिका क्र. 2 आधुनिक हिंदी साहित्य	2	सत्र – 2 अभ्यासपत्रिका क्र. 2 हिंदी गद्य साहित्य

शिवाजी विश्वविद्यालय, कोल्हापुर
 हिंदी अध्ययन मंडल
 द्वितीय वर्ष (कला विद्या शाखा)
Discipline Specific Elective course
 हिंदी (ऐच्छिक)
 (शैक्षिक वर्ष 2019–20, 2020–21, 2021–22)
 (प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल
 पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

तृतीय सत्र
 प्रश्नपत्र – 3 अस्मितामूलक विमर्श और हिंदी गद्य साहित्य

उद्देश्य –

- कथा साहित्य का स्वरूप, तत्व एवं प्रकारों का अध्ययन कराना।
- समीक्षा मानदंडों के आधार पर कथा साहित्य का अध्ययन कराना।
- कथेतर साहित्य का समीक्षात्मक अध्ययन कराना।
- कथा और कथेतर साहित्य का वर्तमान प्रासंगिकता के साथ अध्ययन कराना।

अध्यापन पद्धति –

- व्याख्यान विश्लेषण।
- संपादकों, उपसंपादकों तथा विद्वानों से साक्षात्कार।
- चर्चा एवं संगोष्ठी।
- आई. सी. टी. का प्रयोग।

पाठ्यपुस्तक – गद्य संचयन – संपादक, हिंदी अध्ययन मंडल, शिवाजी विश्वविद्यालय,
 कोल्हापुर, वाणी प्रकाशन, नई दिल्ली।

पाठ्य विषय–

- नारी विमर्श।
- दलित एवं अस्मिता मूलक विमर्श।
- विभाजन की त्रासदी।

- महान चरित्रों का परिचय।
- हिंदी विविध विधाओं का परिचय।

इकाई-I कथा साहित्य –

- | | | |
|---------------------|---|---------------|
| 1. जीती बाजी की हार | – | मन्नू भंडारी |
| 2. गृह- प्रवेश | – | मिथिलेश्वर |
| 3. घर की तलाश | – | राजेंद्र यादव |

इकाई-II कथा साहित्य –

- | | | |
|----------------------|---|--------------|
| 4. जॉर्ज पंचम की नाक | – | कमलेश्वर |
| 5. पहाड़ | – | निर्मल वर्मा |
| 6. सिक्का बदल गया | – | कृष्णा सोबती |

इकाई-III कथेतर साहित्य –

- | | | |
|------------------------------------|---|---------------------------|
| 7. अकेलापन और पार्थक्य (डायरी अंश) | – | गजानन माधव 'मुक्तिबोध' |
| 8. घर लौटते हुए (आत्मकथा अंश) | – | हरिवंशराय बच्चन |
| 9. धरती और धान (जीवनी अंश) | – | पाण्डेय बैचन शर्मा 'उग्र' |

इकाई-IV कथेतर साहित्य –

- | | | |
|----------------------------------|---|-----------------|
| 10. अखबारी विज्ञापन(रेडियो नाटक) | – | चिरंजीत |
| 11. वकील साहब (रेखाचित्र) | – | विनय मोहन शर्मा |
| 12. महात्मा गांधी (संस्मरण) | – | रामकुमार वर्मा |

प्रश्नपत्र का स्वरूप तथा अंक विभाजन

		अंक
प्रश्न 1	समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	कथा साहित्य पर ससंदर्भ स्पष्टीकरण (3 में से 2)	10

प्रश्न 3	पूरे पाठ्यक्रम लघुत्तरी प्रश्न (5 में से 3) (कथा साहित्य 2 और कथेतर साहित्य पर 3 प्रश्न)	15
प्रश्न 4	समग्र पाठ्यक्रम पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) (कथा साहित्य 1 और कथेतर साहित्य पर 1 प्रश्न)	15

संदर्भ – ग्रंथ सूची

1. कथा साहित्य के प्रतिमान – डॉ. रोहिताश्व, अमन प्रकाशन, कानपुर।
2. निर्मल वर्मा का कथा साहित्य – डॉ. रघुनाथ शिरगावकर, अमन प्रकाशन, कानपुर।
3. कहानीकार कमलेश्वर : संदर्भ और प्रकृति – डॉ. सूर्यनारायण रणसुभे, विकास प्रकाशन, कानपुर।
4. साठोत्तरी कहानी में परिवार – डॉ. इन्दु विरेन्द्रा, विकास प्रकाशन, कानपुर।
5. साहित्यिक विधाएँ : सैद्धांतिक पक्ष – डॉ. धवन मधु, वाणी प्रकाशन, नई दिल्ली।
6. मन्नू भंडारी के साहित्य में चित्रित समस्याएँ – डॉ.सौ. माधवी जाधव, विद्या प्रकाशन, कानपुर।
7. कहानी स्वरूप और संवेदना— राजेंद्र यादव, नेशनल पब्लिशिंग हाऊस, नई दिल्ली।
8. राजेंद्र यादव के कहानियों में चित्रित समस्याएँ— डॉ. अर्जुन चव्हाण, पूजा पब्लिकेशन, कानपुर।
9. मिथिलेश्वर का कहानी जगत— डॉ. संजय चिंदगे, स्वच्छंद प्रकाशन, कोल्हापुर।
10. मिथिलेश्वर की कहानियों में ग्रामीण यथार्थ —डॉ. वर्षा मिश्र, क्वालीटी बुक्स, कानपुर।
11. साहित्यिक विधाएँ : पुनर्विचार – डॉ. हरिमोहन, वाणी प्रकाशन, नई दिल्ली।
12. डॉ. हरिवंशराय बच्चन का आत्मकथात्मक साहित्य – डॉ. श्रीनिवास, विनय प्रकाशन, कानपुर।

13. गद्य की विविध विधाएँ— डॉ. बापूराव देसाई, विनय प्रकाशन, कानपुर।
 14. राजेंद्र यादव का उखड़े हुए लोग संवेदना एवं शिल्प — डॉ. मोहन सावंत, ए. बी.एस. पब्लिकेशन, वाराणसी।
 15. हिंदी कहानी का समकालीन परिदृश्य — डॉ. वेदप्रकाश अमिताभ, विनय प्रकाशन, कानपुर।
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शिवाजी विश्वविद्यालय, कोल्हापुर
हिंदी अध्ययन मंडल
द्वितीय वर्ष (कला विद्या शाखा)
Discipline Specific Elective course
हिंदी (ऐच्छिक)
(शैक्षिक वर्ष 2019–20, 2020–21, 2021–22)
(प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली
की मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

तृतीय सत्र
प्रश्नपत्र – 4 हिंदी संतकाव्य तथा राष्ट्रीय काव्यधारा

उद्देश्य –

- छात्रों की हिंदी साहित्य के प्रति रुचि बढ़ाना तथा छात्रों को साहित्य की विविध विधाओं से परिचित कराना।
- छात्रों को मध्यकालीन हिंदी कवियों से परिचित कराना।
- छात्रों में नैतिक मूल्य, राष्ट्रीय मूल्य एवं उत्तरदायित्व के प्रति आस्था निर्माण करना।
- छात्रों को आधुनिक हिंदी कविता में चित्रित विविध विमर्शों से परिचित कराना।

अध्यापन पद्धति –

1. व्याख्यान तथा विश्लेषण।
2. सस्वर काव्य पाठ, प्रकट वाचन, संवाद।
3. ग्रंथालयों के माध्यम से संबंधित लेखकों, कवियों की मौलिक कृतियों से छात्रों का परिचय।
4. दृक-श्राव्य साधनों/माध्यमों का प्रयोग।

पाठ्यपुस्तक – काव्यामृत, संपादक— हिंदी अध्ययन मंडल, शिवाजी विश्वविद्यालय, कोल्हापुर, वाणी प्रकाशन, नई दिल्ली।

पाठ्य विषय –

1. पठित दोहे एवं पदों की सटीक व्याख्या करना।

2. मध्यकालीन संत कवियों का कार्य उजागर करना।
3. आधुनिक कविता के सामाजिक संदर्भ स्पष्ट करना।
4. आधुनिक कविता का समीक्षात्मक विश्लेषण करना।

इकाई— मध्यकालीन काव्य—

1. कबीर के दोहे – 10
2. सूरदास के पद – 03
3. मीरा के पद – 03

इकाई—II मध्यकालीन काव्य—

4. घनानंद के पद – 03
5. रहीम के दोहे – 10
6. भूषण के पद – 03

इकाई—III आधुनिक हिंदी कविता –

7. तुकडोजी के पद – 02
8. यह तो शर्म की बात है – सुशीला टाकभौरे
9. तीली – उदय प्रकाश

इकाई—IV आधुनिक हिंदी कविता—

10. प्यार – सुधाकर मिश्र
11. गज़ल – हस्तिमल हस्ति
12. लता की शायरी – प्रकाश भोसले

प्रश्नपत्र का स्वरूप तथा अंक विभाजन

		अंक
प्रश्न 1	समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	आधुनिक हिंदी कविता पर ससंदर्भ स्पष्टीकरण (3 में से 2)	10
प्रश्न 3	पूरे पाठ्यक्रम पर लघुत्तरी प्रश्न (5 में से 3) (मध्यकालीन काव्य पर 03, आधुनिक हिंदी कविता पर 02)	15
प्रश्न 4	समग्र पाठ्यक्रम दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) (मध्यकालीन काव्य पर 1 और आधुनिक हिंदी कविता पर 1 प्रश्न)	15

संदर्भ सूची

1. राष्ट्रसंत तुकडोजी के राष्ट्रीय विचार –डॉ. सौ. माधवी जाधव, विद्या प्रकाशन, कानपुर।
2. प्यार का पहला खत (प्रतिनिधि गजले) – हस्तीमल 'हस्ती', वाणी प्रकाशन, नई दिल्ली।
3. मनीप्लांट और फूल– डॉ. सुधाकर मिश्र, नारायण प्रकाशन, वाराणसी।
4. लता की शायरी– प्रकाश रावसाहेब भोसले, अन्नपूर्णा प्रकाशन, कानपुर।
5. 'अनभै' – सं. रतनकुमार पाण्डेय, 31 जुलाई – सितम्बर 2011, (विशेष अंक सुधाकर मिश्र)
6. 'अनभै' – सं. रतनकुमार पाण्डेय जनवरी – जून 2017 (विशेष अंक हस्तीमल 'हस्ती').
7. इक्कीसवीं सदी का हिंदी काव्य – डॉ. सौ. माधवी जाधव, विद्या प्रकाशन, कानपुर।
8. युगदृष्टा राष्ट्रसंत तुकडोजी का राष्ट्रीय जीवन निर्माण में योगदान – डॉ. दिनकर येवलेकर, विनय प्रकाशन, कानपुर।
9. विवके सरिता – राष्ट्रसंत श्री. तुकडोजी महाराज, श्री. गुरुदेव प्रकाशन, अमरावती।
10. हिंदी के प्रतिनिधि कवि – द्वारिकाप्रसाद सक्सेना, हिंदी बुक सेंटर, नई दिल्ली।
11. सुधाकर मिश्र की काव्य संवेदना – डॉ. अरुण सिंह, विनय प्रकाशन, कानपुर।
12. कुसुम अंसल के काव्य साहित्य में चित्रित नारी – जीवन के विमर्श–डॉ. आर. पी. भोसले, पूजा प्रकाशन, कानपुर।
13. राष्ट्रीय भजनावली – राष्ट्रसंत श्री. तुकडोजी महाराज, श्री. गुरुदेव प्रकाशन, अमरावती।

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DISCIPLINE SPECIFIC ELECTIVE COURSE (DSEC)

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1-100 तक मानक रूप में हिंदी गिनती

भारत की राजभाषा हिंदी देवनागरी लिपि में लिखी हुई होनी चाहिए, लेकिन गिनती अरेबिक अंक (1, 2, 3 u) में होनी चाहिए, देवनागरी (1 , 2, 3 u) में नहीं ।

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1. Auditorium -
 2. Ability -
 3. Art gallery -
 4. Classic drama -
 5. Colour photography-
 6. Actor -
 7. Children's song -
 8. Comical song -
 9. Casting director -
 10. Puppet -
 11. Hero -
 12. Clown/ Zony - /
 13. Advantage - ,
 14. Blue chip company -
 15. Broker - ,
 16. Bear -
 17. Artificial dearness -
 18. Black marketing -
 19. Bonus -
 20. Custom -
 21. Currency -
 22. Absolute amount -
 23. Advance -
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शिवाजी विश्वविद्यालय, कोल्हापुर
 हिंदी अध्ययन मंडल
 द्वितीय वर्ष (कला विद्या शाखा)
Discipline Specific Elective course
 हिंदी (ऐच्छिक)
 (शैक्षिक वर्ष 2019–20, 2020–21, 2021–22)
 (प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली
 की मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

चतुर्थ सत्र
 प्रश्नपत्र – 6 अस्मितामूलक विमर्श और हिंदी पद्य साहित्य

पाठ्यपुस्तक –

- कितने प्रश्न करूँ (खण्डकाव्य) – ममता कालिया

उद्देश्य –

1. छात्रों को हिंदी कवियों से परिचित कराना।
2. छात्रों में हिंदी भाषा के श्रवण, पठन एवं लेखन की क्षमता को विकसित कराना।
3. छात्रों की हिंदी साहित्य के प्रति रुचि बढ़ाना तथा छात्रों को साहित्य की विविध विधाओं से परिचित कराना।
4. छात्रों में नैतिक मूल्य, राष्ट्रीय मूल्य एवं उत्तरदायित्व के प्रति आस्था निर्माण कराना।

अध्यापन पद्धति –

- व्याख्यान तथा विश्लेषण।
- सस्वर काव्य पाठ, प्रकट वाचन, संवाद।
- ग्रंथालयों के माध्यम से संबंधित कवि की मौलिक कृतियों से छात्रों का परिचय।
- दृक-श्राव्य साधनों/माध्यमों का प्रयोग।

पाठ्य पुस्तक – कितने प्रश्न करूँ (खण्डकाव्य) – ममता कालिया, वाणी प्रकाशन, नई दिल्ली।

पाठ्य विषय –

1. पात्रों की चारित्रिक विशेषताओं को समझाना ।
2. आधुनिक बोध से अवगत कराना ।
3. खण्डकाव्य का समीक्षात्मक विवेचन।
4. समानता की दृष्टि वृद्धिगत करना ।

इकाई—I ममता कालिया का व्यक्तित्व एवं कृतित्व :-

1. ममता कालिया का जीवन परिचय।
2. ममता कालिया का व्यक्तित्व का परिचय।
3. ममता कालिया का कृतित्व।

इकाई—II

1. ' कितने प्रश्न करूँ' खण्डकाव्य का कथानक।
2. ' कितने प्रश्न करूँ' खण्डकाव्य में चित्रित पात्र एवं चरित्र चित्रण।
3. ' कितने प्रश्न करूँ' खण्डकाव्य के संवाद।

इकाई—III

1. ' कितने प्रश्न करूँ' खण्डकाव्य का देशकाल तथा वातावरण।
2. ' कितने प्रश्न करूँ' खण्डकाव्य की भाषा—शैली।
3. ' कितने प्रश्न करूँ' खण्डकाव्य का उद्देश्य।

इकाई—IV

1. ' कितने प्रश्न करूँ' 'खण्डकाव्य में चित्रित समसामायिकता।
2. ' कितने प्रश्न करूँ' खण्डकाव्य की शीर्षक की सार्थकता।
3. ' कितने प्रश्न करूँ' खण्डकाव्य में चित्रित समस्याएँ।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन

		अंक
प्रश्न 1	' कितने प्रश्न करूँ' खण्डकाव्य पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	' कितने प्रश्न करूँ' खण्डकाव्य पर ससंदर्भ स्पष्टीकरण (3 में से 2)	10
प्रश्न 3	' कितने प्रश्न करूँ' खण्डकाव्य पर लघुत्तरी प्रश्न(5 में से 3)	15
प्रश्न 4	' कितने प्रश्न करूँ' खण्डकाव्य पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	15

संदर्भ सूची

1. कविता के नए प्रतिमान – डॉ. नामवर सिंह
2. कविता का प्रतिसंसार – निर्मला जैन
3. आधुनिक खण्डकाव्यों में युग चेतना – डॉ. एन. डी. पाटील, विनय प्रकाशन, कानपुर।
4. ममता कालिया : व्यक्तित्व एवं कृतित्व – डॉ. फैमिदा बीजापुरे, विनय प्रकाशन, कानपुर।

शिवाजी विश्वविद्यालय, कोल्हापुर
 हिंदी अध्ययन मंडल
 द्वितीय वर्ष (आंतर विद्या शाखा) I.D.S.
 तृतीय सत्र
 प्रयोजनमूलक हिंदी
 प्रश्नपत्र 1
 (शैक्षिक वर्ष 2019–20, 2020–21, 2021–22)
 (प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली
 की मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

उद्देश्य –

-
- हिंदी के व्यावहारिक पक्ष से परिचित कराना।
 - वाणिज्यिक व्यवहार में हिंदी भाषा को प्रज्वलित कराना।
 - हिंदी में कार्य करने की रुचि विकसित कराना।
 - रोजगारोन्मुख शिक्षा प्रदान करना।
 - राष्ट्रभाषा के प्रति रुचि उत्पन्न करना।
 - कार्यालय और व्यवसाय में हिंदी प्रयोग का कौशल विकास विकसित करना।
-

अध्ययनार्थ विषय –

इकाई-I कार्यालयीन पत्राचार-

1. नौकरी के लिए आवेदन पत्र।
2. पदाधिकारियों के नाम पत्र।
3. छुट्टी के लिए प्रार्थना पत्र।
4. परिपत्र।

इकाई-II अनुवाद : सैद्धांतिक पक्ष –

1. अनुवाद की परिभाषा।
2. अनुवाद का स्वरूप।
3. अनुवाद की उपयोगिता।
4. अनुवादक के गुण।

इकाई-III समाचार का अनुवाद –

1. समाचार का अनुवाद।

2. अंग्रेजी एवं हिंदी अनुच्छेदों में से किसी एक का अनुवाद।
3. अंग्रेजी से हिंदी में अनुवाद(दो में से एक)
4. हिंदी से अंग्रेजी में अनुवाद (दो में से एक)

इकाई-IV मुद्रित संचार माध्यमों का सामान्य परिचय –

1. दै. समाचार पत्र 2. पत्र-पत्रिकाएँ
3. विज्ञापन 4. उद्घोषणा का सामान्य परिचय।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन

		अंक
प्रश्न 1	समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न।	10
प्रश्न 2	इकाई I पर पत्रलेखन प्रश्न(3 में से 2)	10
प्रश्न 3	इकाई IV पर लघुत्तरी प्रश्न(3 में से 2)	15
प्रश्न 4	(अ) इकाई II पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10
	(आ) इकाई III पर अनुवाद लेखन। (हिंदी और अंग्रेजी अनुच्छेदों में से किसी एक का अनुवाद।)	05

❖ संदर्भ ग्रंथ सूची –

- हिंदी और उसका व्यवहार – डॉ. व्ही. के. मोरे – फडके प्रकाशन, कोल्हापुर।
- पत्रकारिता के सिद्धांत – डॉ. रमेशचंद्र त्रिपाठी, नमन प्रकाशन, नई दिल्ली।
- अनुवाद चिंतन – डॉ. अर्जुन चव्हाण, अमन प्रकाशन, कानपुर।
- प्रयोजनमूलक हिंदी – डॉ. विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली।
- आधुनिक जनसंचार और हिंदी – प्रो. हरिमोहन, तक्षशिला प्रकाशन, नई दिल्ली।
- प्रयोजनमूलक हिंदी व्याकरण एवं पत्रलेखन – डॉ. बापूराव देसाई, विनय प्रकाशन, कानपुर।
- रोजगारोन्मुख हिंदी – डॉ. गणेश ठाकुर, विजय प्रकाशन, कानपुर।

शिवाजी विश्वविद्यालय, कोल्हापुर
 हिंदी अध्ययन मंडल
 द्वितीय वर्ष (आंतर विद्या शाखा) I.D.S.
 चतुर्थ सत्र
 प्रयोजनमूलक हिंदी
 प्रश्नपत्र 2
 (शैक्षिक वर्ष 2019–20, 2020–21, 2021–22)
 (प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली
 की मॉडल पाठ्यचर्या (CBCS) के आलोक में किया गया है।)

उद्देश्य –

- हिंदी के व्यावहारिक पक्ष से परिचित कराना।
- वाणिज्यिक व्यवहार में हिंदी भाषा को प्रज्वलित करना।
- हिंदी में कार्य करने की रुचि विकसित करना।
- रोजगारोन्मुख शिक्षा प्रदान करना।
- राष्ट्रभाषा के प्रति रुचि उत्पन्न करना।
- कार्यालय और व्यवसाय में हिंदी प्रयोग का कौशल विकास विकसित करना।

अध्ययनार्थ विषय –

इकाई—Iसंगणक का परिचय।

1. संगणक का सामान्य परिचय।
2. संगणक के उपयोग।
3. इंटरनेट सेवा। (प्रयोग विधि)
4. ई-मेल सेवा(प्रेषण एवं प्राप्ति)

इकाई—IIवृत्तांत लेखन।

1. महाविद्यालयीन समारोह का वृत्तांत लेखन।
2. सामाजिक समारोह का वृत्तांत लेखन।
3. प्राकृतिक आपदाओं का वृत्तांत लेखन।
4. दुर्घटनाओं का वृत्तांत लेखन।

इकाई-III वाणिज्य पत्राचार ।

1. पूछताछ के पत्र ।
2. क्रयादेश के पत्र ।
3. संदर्भ के पत्र ।
4. शिकायती पत्र ।

इकाई-IV इलेक्ट्रॉनिक संचार माध्यम का सामान्य परिचय ।

1. रेडिओ
2. दूरदर्शन
3. टेलीकॉफ़ेंस
4. डाक्यूमेंट्री का सामान्य परिचय । (तकनीकी जानकारी अपेक्षित नहीं है ।)

प्रश्नपत्र का स्वरूप तथा अंक विभाजन

		अंक
प्रश्न 1	समग्र पाठ्यक्रम पर दस बहुविकल्पी प्रश्न ।	10
प्रश्न 2	इकाई I विभाग पर प्रश्न (3 में से 2)	10
प्रश्न 3	इकाई II विभाग पर लघुत्तरी प्रश्न (3 में से 2)	15
प्रश्न 4	(अ) इकाई III पर पत्रलेखन (3 में से 2)	08
	(आ) इकाई IV पर प्रश्न (3 में से 2)	07

❖ संदर्भ ग्रंथ सूची –

- हिंदी और उसका व्यवहार – डॉ. व्ही. के. मोरे – फडके प्रकाशन, कोल्हापुर ।
- पत्रकारिता के सिद्धांत – डॉ. रमेशचंद्र त्रिपाठी, नमन प्रकाशन, नई दिल्ली ।
- अनुवाद चिंतन – डॉ. अर्जुन चव्हाण, अमन प्रकाशन, कानपुर ।
- प्रयोजनमूलक हिंदी – डॉ. विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली ।
- आधुनिक जनसंचार और हिंदी – प्रो. हरिमोहन, तक्षशिला प्रकाशन, नई दिल्ली ।
- प्रयोजनमूलक हिंदी विविध परिदृश्य – डॉ. रमेशचंद्र त्रिपाठी, विनय प्रकाशन, कानपुर ।

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शिवाजी विश्वविद्यालय, कोल्हापुर

D.S.E.C.

बी.ए.भाग-2 (हिंदी)

C.B.C.S.

जून 2019 पासून सुरु होणा-या सुधारित अभ्यासक्रम समकक्षता

अ.क्र.	जुना अभ्यासक्रम	नवीन अभ्यासक्रम
1	तीसरे सत्र अभ्यासपत्रिका क्रमांक 3 आधुनिक गद्य साहित्य	तीसरे सत्र अभ्यासपत्रिका क्रमांक 3 अस्मितामूलक विमर्श और हिंदी गद्य साहित्य
2	तीसरे सत्र अभ्यासपत्रिका क्रमांक 4 मध्यकालीन एवं आधुनिक काव्य	तीसरे सत्र अभ्यासपत्रिका क्रमांक 4 हिंदी संतकाव्य तथा राष्ट्रीय काव्य
3	चौथे सत्र अभ्यासपत्रिका क्रमांक 5 आधुनिक गद्य साहित्य	चौथे सत्र अभ्यासपत्रिका क्रमांक 5 हिंदी में रोजगार के अवसर
4	चौथे सत्र अभ्यासपत्रिका क्रमांक 6 आधुनिक काव्य	चौथे सत्र अभ्यासपत्रिका क्र. 6 अस्मितामूलक विमर्श और हिंदी पद्य साहित्य
5	प्रश्नपत्र -1,2 I.D.S. प्रयोजनमूलक हिंदी	प्रश्नपत्र -1,2 I.D.S. प्रयोजनमूलक हिंदी

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.A. Part-III

Hindi.

Syllabus to be implemented from

June, 2020 onwards.

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र-V, VI

Discipline Specific Elective

(शैक्षिक वर्ष -2020-21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

सत्र-V

- प्रश्नपत्र- VII : विधा विशेष का अध्ययन।
प्रश्नपत्र- VIII : साहित्यशास्त्र ।
प्रश्नपत्र- IX : हिंदी साहित्य का इतिहास।
प्रश्नपत्र- X : प्रयोजनमूलक हिंदी ।
प्रश्नपत्र- XI : भाषा विज्ञान और हिंदी भाषा ।

सत्र-VI

- प्रश्नपत्र- XII : विधा विशेष का अध्ययन।
प्रश्नपत्र- XIII : साहित्यशास्त्र और हिंदी आलोचना।
प्रश्नपत्र- XIV : हिंदी साहित्य का इतिहास।
प्रश्नपत्र- XV : प्रयोजनमूलक हिंदी ।
प्रश्नपत्र- XVI : भाषा विज्ञान और हिंदी भाषा ।

सत्र V और VI : परीक्षा में एक प्रश्नपत्र 50 अंकों का होगा, जिसमें 40 अंक लिखित परीक्षा के और 10 अंक अंतर्गत मूल्यांकन के लिए हैं। जिसमें सेमिनार, मौखिकी, परियोजना, (प्रोजेक्ट) गृहकार्य, में से एक देना अनिवार्य है।

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र -V प्रश्नपत्र- VII

विधा विशेष का अध्ययन

Discipline Specific Elective (D.S.E.-E6)

(शैक्षिक वर्ष -2020 -21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

पाठ्यक्रम

उद्देश्य :

1. नाटककार कुसुम कुमार की बहुमुखी प्रतिभा से परिचित कराना।
2. नाटककार कुसुम कुमार के साहित्य से परिचित कराना।
3. नाटककार कुसुम कुमार की विचारधारा से परिचित कराना।
4. नाटककार कुसुम कुमार के निर्धारित ग्रंथ का सूक्ष्म आलोचनात्मक अध्ययन कराना।
5. लेखिका के नाटककार के रूप में साहित्यिक स्थान को निर्धारित कराना।

अध्यापन पद्धति

- स्वाध्याय .
- व्याख्यान, विवेचन तथा विश्लेषण
- संगोष्ठी तथा समूह चर्चा का आयोजन।
- अतिथियों एवं विद्वानों के व्याख्यान।
- दृक श्राव्य माध्यमों का प्रयोग।
- संगणक तथा इंटरनेट आदि साधनों का प्रयोग।

पाठ्यपुस्तक

‘दिल्ली ऊँचा सुनती है’ (नाटक) –कुसुम कुमार

किताबघर प्रकाशन, अन्सारी रोड, दरियागंज,

नई दिल्ली-110002

इकाई 1 कुसुम कुमार का जीवन परिचय, व्यक्तित्व, कृतित्व एवं नाटककार कुसुम कुमार का सामान्य परिचय ।

इकाई 2 ‘दिल्ली ऊँचा सुनती है’– कथावस्तु एवं शीर्षक की सार्थकता ।

इकाई 3 ‘दिल्ली ऊँचा सुनती है’– पात्र एवं चरित्र –चित्रण, संवाद, देशकाल वातावरण ।

इकाई 4 ‘दिल्ली ऊँचा सुनती है’– भाषा शैली, उद्देश्य अभिनेयता एवं समस्याएँ ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	‘दिल्ली ऊँचा सुनती है’ पर ससंदर्भ प्रश्न (3 में से 2)	10
प्रश्न 3	‘दिल्ली ऊँचा सुनती है’ एवं कुसुम कुमार पर लघुत्तरी प्रश्न (3 में से 2)	10
प्रश्न 4	‘दिल्ली ऊँचा सुनती है’ पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

संदर्भ ग्रंथ सूची–

- डॉ. कुसुम कुमार एक प्रयोगधर्मी नाटककार– डॉ.दत्तात्रय मोहिते, विद्या प्रकाशन, ‘सी’ 449, गुजैनी, कानपुर–208022
- स्वातंत्र्योत्तर हिंदी नाटक–डॉ.रंजन तिवारी, विद्या प्रकाशन, कानपुर–208022
- हिंदी महिला नाटककार–डॉ.भगवान जाधव, विद्या प्रकाशन, कानपुर–208022
- समकालीन हिंदी नाटक– डॉ. जशवंतभाई पंडया, ज्ञान प्रकाशन, कानपुर

सत्र –VI प्रश्नपत्र– XII

DSE-E131

उद्देश्य :

- उपन्यास के तात्त्विक स्वरूप का परिचय देना।
- उपन्यासकार के व्यक्तित्व एवं कृतित्व से परिचित कराना।
- रचना विशेष का महत्त्व समझने एवं मूल्यांकन करने की क्षमता बढ़ाना।
- रचना के आस्वादन एवं समीक्षा की क्षमता विकसित कराना।
- पाठ्यक्रम में निर्धारित उपन्यास की प्रासंगिकता से अवगत कराना।

पाठ्यपुस्तक –अंतिम साक्ष्य (उपन्यास)–चंद्रकांता

अमन प्रकाशन, 104 A/80 सी रामबाग, कानपुर– 12

इकाई 1. चंद्रकांता का जीवन परिचय, व्यक्तित्व, कृतित्व एवं उपन्यासकार चंद्रकांता का सामान्य परिचय ।

इकाई 2. 'अंतिम साक्ष्य'–कथावस्तु एवं शीर्षक की सार्थकता।

इकाई 3. 'अंतिम साक्ष्य'–पात्र एवं चरित्र –चित्रण तथा संवाद।

इकाई 4. 'अंतिम साक्ष्य'–देशकाल तथा वातावरण, भाषा शैली, उद्देश्य एवं समस्याएँ ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	'अंतिम साक्ष्य' पर ससंदर्भ प्रश्न (3 में से 2)	10
प्रश्न 3	'अंतिम साक्ष्य' एवं चंद्रकांता पर लघुत्तरी प्रश्न (3 में से 2)	10
प्रश्न 4	'अंतिम साक्ष्य' पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

संदर्भ ग्रंथ सूची –

- चंद्रकांता का कथा साहित्य–समकालीन परिवेश तथा संदर्भ–डॉ.अमोल पालकर, विद्या प्रकाशन, कानपुर–208022
- चंद्रकांता का कथा साहित्य–डॉ.जगदीश चव्हाण, विद्या प्रकाशन, कानपुर–208022

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र -V प्रश्नपत्र- VIII

साहित्यशास्त्र

Discipline Specific Elective (D.S.E.-E7)

(शैक्षिक वर्ष -2020 -21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

उद्देश्य :

- 1) साहित्य निर्मिति की प्रक्रिया का बोध कराना।
- 2) साहित्य /काव्य के विभिन्न अंगों, भेदों से परिचित कराना।
- 3) साहित्य/काव्य की नवीन विधाओं से परिचित कराना।
- 4) समीक्षा सिद्धांतों से परिचित कराना।
- 5) साहित्य /काव्य के तत्वों से परिचित कराना।
- 6) अलंकारों से परिचित कराना।

अध्यापन पद्धति –

- स्वाध्याय .
- व्याख्यान, विवेचन तथा विश्लेषण
- भारतीय एवं पाश्चात्य साहित्यशास्त्र का सैद्धांतिक एवं अनुप्रयोग की दृष्टि से।
- संगोष्ठी तथा समूह चर्चा का आयोजन।
- अतिथियों एवं विद्वानों के व्याख्यान।
- दृक श्राव्य माध्यमों का प्रयोग।
- संगणक तथा इंटरनेट आदि साधनों का प्रयोग।

अध्ययनार्थ विषय –

इकाई 1 काव्य/साहित्य – स्वरूप, तत्व, प्रयोजन।

इकाई 2 काव्य के प्रकार, काव्य गुण, काव्य दोष।

इकाई 3 रस – स्वरूप, रस के अंग, रस के भेद।

इकाई 4 अलंकार – शब्दालंकार – अनुप्रास, वक्रोक्ति, यमक, वीप्सा

अर्थालंकार – उपमा, रूपक, अतिशयोक्ति, विभावना।

(केवल लक्षण एवं उदाहरण अपेक्षित)

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	इकाई 2 पर लघुत्तरी प्रश्न (3 में से 2)	10
प्रश्न 3	इकाई 4 पर टिप्पणियां (3 में से 2)	10
प्रश्न 4	इकाई 1 और 3 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

सत्र-VI प्रश्नपत्र-XIII
साहित्यशास्त्र और हिंदी आलोचना

DSE-E132

इकाई 1 महाकाव्य – स्वरूप, भारतीय तत्व।

प्रगीत – स्वरूप, भेद।

गजल – स्वरूप, प्रमुख अंग।

इकाई 2 एकांकी – स्वरूप एवं तत्व।

कहानी – स्वरूप एवं तत्व।

उपन्यास – स्वरूप एवं तत्व।

इकाई 3 रेखाचित्र – स्वरूप एवं विशेषताएँ।

आत्मकथा – स्वरूप एवं विशेषताएँ।

यात्रावृत्त – स्वरूप एवं विशेषताएँ।

इकाई 4 आलोचना का स्वरूप।

आलोचक के गुण।

आलोचना के प्रकार –

- 1) व्याख्यात्मक आलोचना।
- 2) तुलनात्मक आलोचना।
- 3) मनोवैज्ञानिक आलोचना।
- 4) ऐतिहासिक आलोचना।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	इकाई 2 पर लघुत्तरी प्रश्न (3 में से 2)	10
प्रश्न 3	इकाई 4 पर टिप्पणियाँ (3 में से 2)	10
प्रश्न 4	इकाई 1 और 3 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

संदर्भ ग्रंथ सूची

- 1) काव्यशास्त्र – भगीरथ मिश्र ।
- 2) शास्त्रीय समीक्षा के सिद्धांत – डॉ.गोविंद त्रिगुणायत ।
- 3) काव्य के रूप – बाबू गुलाबराय ।
- 4) भारतीय काव्यशास्त्र के सिद्धांत – डॉ.कृष्णदेव झारी ।
- 5) भारतीय काव्यशास्त्र – डॉ.मानवेंद्र पाठक ।
- 6) भारतीय साहित्यशास्त्र – डॉ. बलदेव उपाध्याय ।
- 7) साहित्यशास्त्र – डॉ. चंद्रभान सोनवणे ।
- 8) भारतीय काव्यशास्त्र –डॉ.योगेंद्र प्रताप सिंह ।
- 9) हिंदी आलोचना के बीज शब्द – डॉ. बच्चन सिंह ।
- 10) पाश्चात्य साहित्य सिद्धांत विवेचन – डॉ.ओमप्रकाश शर्मा, शैलजा
प्रकाशन, यशोदानगर, कानपुर-208011 ।
- 11) भारतीय एवं पाश्चात्य काव्यशास्त्र – डॉ.त्रिलोकनाथ श्रीवास्तव ,डॉ.गंगासहाय
प्रेमी, साहित्य सरोवर प्रकाशन, जयपुर हाऊस, आगरा-282010 ।

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र V प्रश्नपत्र IX

हिंदी साहित्य का इतिहास

Discipline Specific Elective (D.S.E.-E8)

(शैक्षिक वर्ष –2020 –21, 2021–22, 2022–23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

उद्देश्य :

1. हिंदी भाषा तथा साहित्य की विकास यात्रा से अवगत कराना।
2. हिंदी साहित्य की विकास यात्रा में हिंदी भाषा के माध्यम से अलग-अलग विचारधारा और प्रवृत्तियों से अवगत कराना।
3. छात्रों में साहित्य समझने तथा उसका आस्वादन, मूल्यांकन करने की दृष्टि को बढ़ाना।
4. छात्रों को साहित्य के संदर्भ में विभिन्न साहित्यिक विधाओं के विकास क्रम से परिचित कराना।
5. छात्रों को युगीन सामाजिक, राजनीतिक परिस्थितियों के परिप्रेक्ष्य में हिंदी से अवगत कराना।
6. इतिहासकारों द्वारा प्रस्तुत काल विभाजन और नामकरण को जानने के लिए प्रेरित करना।
7. हिंदी के प्रमुख संत कवि, उनकी रचनाएँ और उनका समाजसुधार में योगदान से परिचित कराना।
8. हिंदी साहित्य के अंतर्गत गद्य-पद्य विधा और उसके भेदों, उपभेदों से अवगत कराना।

9. आदिकाल से लेकर आधुनिक काल तक के संत, महात्मा, लेखक, कवियों की विचारधारा और उनके द्वारा निर्मित साहित्य का सामान्य परिचय कराना।

अध्यापन पद्धति

- स्वाध्याय .
- व्याख्यान, विवेचन तथा विश्लेषण ।
- संगोष्ठी तथा समूह चर्चा का आयोजन।
- अतिथियों एवं विद्वानों के व्याख्यान।
- दृक श्राव्य माध्यमों का प्रयोग।
- संगणक तथा इंटरनेट आदि साधनों का प्रयोग।

अध्ययनार्थ विषय –

इकाई – 1 आदिकाल –

1. आदिकाल का नामकरण।
2. सामाजिक और राजनीतिक परिस्थितियाँ।
3. आदिकाल की प्रतिनिधि रचनाएँ: सामान्य परिचय –
अ) पृथ्वीराज रासो।
आ) बीसलदेव रासो।

इकाई – 2 . भक्तिकाल–

1. भक्तिकालीन सामाजिक परिस्थितियाँ।
2. भक्तिकालीन राजनीतिक परिस्थितियाँ।
3. भक्तिकालीन कवियों का सामान्य परिचय–
अ) संत नामदेव
आ) संत रविदास
इ) संत मीराबाई
ई) गुरु नानक

इकाई – 3 . निर्गुण भक्ति धारा–

1. निर्गुण भक्ति धारा काव्य की सामान्य विशेषताएँ।
2. कबीर : जीवन परिचय एवं कृतित्व।

3. जायसी : जीवन परिचय एवं कृतित्व ।

इकाई – 4 . सगुण भक्ति धारा—

1. सगुण भक्ति धारा काव्य की विशेषताएँ ।

2. तुलसीदास : जीवन परिचय एवं कृतित्व ।

3. सूरदास : जीवन परिचय एवं कृतित्व ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न ।	10
प्रश्न 2	इकाई 1 पर लघुत्तरीय प्रश्न (3 में से 2) ।	10
प्रश्न 3	इकाई 2 पर टिप्पणियाँ (3 में से 2) ।	10
प्रश्न 4	इकाई 3 और 4 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) ।	10

सत्र VI प्रश्नपत्र –XIV
हिंदी साहित्य का इतिहास
DSE-E133

इकाई – 1 रीतिकाल –

1. रीतिकाल का नामकरण ।
2. सामाजिक एवं राजनीतिक परिस्थितियाँ ।
3. प्रतिनिधि कवियों का सामान्य परिचय –
अ) केशवदास
आ) बिहारी
इ) भूषण
ई) धनानंद ।

इकाई – 2 आधुनिक काल –

1. प्रारंभिक हिंदी गद्य साहित्य का सामान्य परिचय ।
2. आधुनिककालीन सामाजिक एवं राजनीतिक परिस्थितियाँ ।
3. युग प्रवर्तक साहित्यकार—
अ) भारतेन्दु हरिश्चंद्र
आ) जयशंकर प्रसाद
इ) मोहन राकेश

इकाई – 3 आधुनिक गद्य विधाओं का विकास—

1. हिंदी उपन्यास साहित्य उद्भव और विकास ।
2. हिंदी नाटक साहित्य उद्भव और विकास ।
3. हिंदी यात्रा साहित्य उद्भव और विकास ।

इकाई – 4 हिंदी काव्य की विभिन्न धारा और उनकी विशेषताएँ ।

1. छायावाद ।
2. प्रगतिवाद
3. समकालीन कविता ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पुरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न	10
प्रश्न 2	इकाई 1 पर लघुत्तरीय प्रश्न (3 में से 2)	10
प्रश्न 3	इकाई 2 पर टिप्पणियाँ (3 में से 2)	10
प्रश्न 4	इकाई 3 और 4 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

संदर्भ ग्रंथ सूची –

1. हिंदी साहित्य का इतिहास— आचार्य रामचंद्र शुक्ल, जयभारती प्रकाशन, माया प्रेस रोड, इलाहाबाद ।
2. हिंदी साहित्य का इतिहास— डॉ. नगेंद्र, नेशनल पब्लिशिंग हाउस, नई दिल्ली ।
3. हिंदी साहित्य का दूसरा इतिहास— डॉ. बच्चन सिंह, राधाकृष्ण प्रकाशन, नई दिल्ली ।
4. हिंदी साहित्य की भूमिका, डॉ. हजारीप्रसाद द्विवेदी ।
5. हिंदी साहित्य का सही इतिहास— डॉ.चंद्रभानु सोनावने ।
6. हिंदी साहित्य: युग और प्रवृत्तियाँ— डॉ.शिवकुमार शर्मा, अशोक प्रकाशन, दिल्ली ।
7. हिंदी साहित्य का वैज्ञानिक इतिहास— गणपतिचंद्र गुप्त ।
8. मध्यकालीन कवि और कविता— रतन कुमार पाण्डेय, अनभै प्रकाशन, मुंबई ।
9. हिंदी साहित्य का इतिहास— डॉ.पूरनचंद टंडन, जगताराम एंड सन्स, नई दिल्ली ।
10. भक्तिकाल के कालजर्ई रचनाकार—विष्णु दास वैष्णव, कमला प्रकाशन— डीसा गुजरात ।
11. हिंदी साहित्य का इतिहास : नए विचार नई दृष्टि— डॉ. सुरेशकुमार जैन, वाणी प्रकाशन, नई दिल्ली ।
12. सूरदास : एक पुनरावलोकन, डॉ. ओमप्रकाश शर्मा, निराली प्रकाशन, पुणे ।
13. हिंदी साहित्य का इतिहास— डॉ.गंगासहाय प्रेमी, डॉ.अशोक तिवारी, साहित्य सरोवर प्रकाशन, जयपुर हाऊस, आगरा ।
14. संत कबीर व्यक्तित्व एवं रचनाएं—डॉ.मो.मजिद मिया, जीएस पब्लिशर्स डिस्ट्रीब्यूटर्स, शाहदरा— दिल्ली ।
15. षट्कवि : विवेचनात्मक अध्ययन— खण्ड : 1 और 2, डॉ. ओमप्रकाश शर्मा, निराली प्रकाशन, 1312, शिवाजीनगर, जे.एम.रोड, पुणे— 05 ।

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र-V प्रश्नपत्र-X

प्रयोजनमूलक हिंदी

Discipline Specific Elective (D.S.E.-E9)

(शैक्षिक वर्ष -2020 -21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

उद्देश्य :

1. हिंदी में कार्य करने की रुचि विकसित करना।
2. रोजगार उन्मुख शिक्षा एवं कौशल्य प्रदान करना।
3. पारिभाषिक शब्दावली से परिचित करना।
4. सरकारी पत्राचार के स्वरूप का परिचय कराना।
5. जनसंचार एवं इलेक्ट्रॉनिक माध्यमों से परिचय कराना।
6. अनुवाद स्वरूप, महत्व तथा उपयोगिता से परिचित कराना।
7. रोजगार परक हिंदी की उपयोगिता स्पष्ट कराना।

अध्यापन पद्धति

- स्वाध्याय .
- व्याख्यान, विवेचन तथा विश्लेषण
- संगोष्ठी तथा समूह चर्चा का आयोजन।
- अतिथियों एवं विद्वानों के व्याख्यान।
- दृक श्राव्य माध्यमों का प्रयोग।
- संगणक तथा इंटरनेट आदि साधनों का प्रयोग।

अध्ययनार्थ विषय –

इकाई – 1 पारिभाषिक शब्दावली ।

दैनिक व्यवहार में प्रयुक्त अंग्रेजी शब्दों के हिंदी पर्यायवाची रूप । (परिशिष्ट में दिए हुए 'अ' तथा 'ब' विभाग के 50 शब्द) ।

इकाई –2 सरकारी कार्यालयीन पत्राचार ।

1. कार्यालय ज्ञापन ।
2. परिपत्र ।
3. कार्यालय आदेश ।
4. सूचना ।
5. अनुस्मारक पत्र ।

इकाई –3 हिंदी भाषा और रोजगार के अवसर ।

1. रेडियो में रोजगार ।
2. विज्ञापन में रोजगार ।
3. अनुवाद में रोजगार ।
4. पत्रकारिता में रोजगार ।
5. फिल्म में रोजगार ।

इकाई –4 समाचार लेखन ।

1. महाविद्यालयीन समारोह का समाचार लेखन ।
2. सामाजिक समारोह का समाचार लेखन ।
3. प्राकृतिक आपदाओं का समाचार लेखन ।
4. दुर्घटनाओं का समाचार लेखन ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पारिभाषिक शब्दावली पर दस वस्तुनिष्ठ प्रश्न	10
प्रश्न 2	इकाई 2 पर लघुत्तरीय प्रश्न (3 में से 2) ।	10
प्रश्न 3	इकाई 3 पर टिप्पणियाँ (3 में से 2) ।	10
प्रश्न 4	इकाई 4 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) ।	10

परिशिष्ट (अ)

पारिभाषिक शब्दावली

	जनसंचार माध्यम संबंधी शब्द	
1.	Announcer	निवेदक
2.	Artistic	कलात्मक
3.	Audio-Visual	दृक-श्राव्य
4.	Banner	पताका
5.	Biographer	जीवनीकार
6.	Biweekly	अर्धसाप्ताहिक
7.	Bulletin	विज्ञापित
8.	Catalogue	सूची
9.	Calligraphy	सुलेखन
10.	Caption	शीर्षक / चित्र परिचय
11.	Cartoonist	व्यंग्य चित्रकार
12.	Choreography	नृत्य रचना
13.	Columnist	स्तंभलेखक
14.	Commentator	समालोचक
15.	Composer	अक्षर योजक
16.	Communication	संचार
17.	Creation	सृजन
18.	Correspondent	संवाददाता
19.	Information Technology	सूचना तंत्रज्ञान
20.	Interview	साक्षात्कार
21.	Interruption	रूकावट
22.	Journalist	पत्रकार
23.	Magazine	पत्रिका
24.	Source Language	स्रोत भाषा
25.	Transliteration	लिप्यंतरण

परिशिष्ट (ब)

शिक्षा सभा और संमेलन संबंधी शब्द

1.	Abstract	सार संक्षेप
2.	Academic Goal	शैक्षिक ध्येय
3.	Address	अभिभाषण संबोधन
4.	Adult Education	प्रौढ शिक्षा
5.	Agenda	कार्यसूची
6.	Anniversary	जयंती वर्षगाँठ
7.	Anthology	संकलन / संग्रह
8.	Appraisal	मूल्यांकन
9.	Attestation	साक्षांकन / अनुप्रमाणन
10.	Audiance	श्रोतागण
11.	Autonomous	स्वायत्त
12.	Bibliography	संदर्भ ग्रंथ सूची
13.	Bachelor	स्नातक
14.	Closing Speech	समापन भाषण
15.	Conference Hall	सम्मेलन भवन
16.	Conclusion	समापन
17.	Document	दस्तावेज
18.	Draft	प्रारूप मसौदा
19.	Guardian	अभिभावक
20.	Humanity	मानविकी
21.	Hypothesis	परिकल्पना
22.	Inauguration	उद्घाटन
23.	Informal	अनौपचारिक
24.	Symposium	संगोष्ठी
25.	Viva-Voce	मौखिक परीक्षा

सत्र-VI प्रश्नपत्र-XV

प्रयोजनमूलक हिंदी

DSE-E134

अध्ययनार्थ विषय –

इकाई –1 पारिभाषिक शब्दावली.

दैनिक व्यवहार में प्रयुक्त अंग्रेजी शब्दों एवं पदनामों के हिंदी पर्यायवाची रूप (परिशिष्ट में दिए हुए 'क' तथा 'ड' विभाग के शब्द एवं पदनाम)

इकाई –2. संदर्भ स्रोतों का सामान्य परिचय :

1. इन्स्टाग्राम
2. फेसबुक
3. व्हाट्सअप
4. ट्विटर
5. ब्लॉग

इकाई-3. जनसंचार इलेक्ट्रॉनिक माध्यमों का सामान्य परिचय :

1. दूरदर्शन
2. इंटरनेट
3. डाक्यूटमेंटरी
4. व्हिडिओ कॉफ्रेंस
5. यु ट्यूब

इकाई –4 अनुवाद

1. अनुवाद स्वरूप और महत्व ।
2. अनुवाद की उपयोगिता ।
3. प्रकृति के आधार पर अनुवाद के प्रकार ।
4. अनुवादक के गुण ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पारिभाषिक शब्दावली पर दस वस्तुनिष्ठ प्रश्न	10
प्रश्न 2	इकाई 2 पर लघुत्तरी प्रश्न (3 में से 2)	10
प्रश्न 3	इकाई 3 पर टिप्पणियाँ (3 में से 2)	10
प्रश्न 4	इकाई 4 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ)	10

संदर्भ ग्रंथ सूची –

1. जनसंचार और पत्रकारिता–विविध आयाम– डॉ.ओमप्रकाश शर्मा, निराली प्रकाशन, पुणे ।
2. मीडिया कालीन हिंदी स्वरूप एवं संभावनाएँ–डॉ. अर्जुन चव्हाण, राधाकृष्ण प्रकाशन नई, दिल्ली ।
3. प्रयोजनमूलक हिंदी की नयी भूमिका–डॉ. कैलाशनाथ पाण्डेय, लोकभारती प्रकाशन, इलाहाबाद, नई, दिल्ली ।
4. प्रयोजनमूलक हिंदी– डॉ. विनोद गोदरे, वाणी प्रकाशन, नई दिल्ली ।
5. प्रयोजनामूलक हिंदी– विविध परिदृश्य–डॉ.रमेशचंद्र त्रिपाठी, डॉ.पवन अग्रवाल, अलका प्रकाशन, कानपुर ।
6. हिंदी भाषा और सूचना प्रौद्योगिकी–डॉ. दीपक रामा तुपे, अभिषेक प्रकाशन, दिल्ली ।
7. हिंदी भाषा में रोजगार के अवसर–प्रा.विकास पाटील, ए.बी.एस. पब्लिकेशन वाराणसी ।
8. मीडिया में कैरियर– पी.के. आर्य, ग्रंथ अकादमी, नई दिल्ली ।
9. प्रयोजनमूलक हिंदी, 'साहित्य सरोवर' –डॉ.श्रीमती आशा मोहन, साहित्य सरोवर प्रकाशन, प्रभु नगर, आगरा–280101
10. मीडिया : एक अंतर्यात्रा– डॉ.स्मिता मिश्र, मंजुली प्रकाशन, नई दिल्ली–23 ।

परिशिष्ट (क)

	अंग्रेजी के हिंदी वाक्यांश	
1.	Above Mentioned / Said	उपर्युक्त
2.	According to	के अनुसार
3.	After discussion	विचार विवर्ष के बाद
4.	Age of retirement	सेवानिवृत्ति की उम्र
5.	As directed	निर्देशानुसार
6.	Effective Control	प्रभावी नियंत्रण
7.	Examine the proposal	प्रस्ताव की जाँच करें
8.	Eligibility is certified	पात्रता प्रमाणित की जाती है
9.	Facilities are not available	सुविधाएँ उपलब्ध नहीं हैं
10.	For Compliance	अनुपालन के लिए
11.	For perusal	अवलोकनार्थ
12.	Gain Wrongfully	अनुचित रूप से प्राप्त करना
13.	Grant of permission	अनुमति देना
14.	Gross negligence	घोर उपेक्षा
15.	Noted and returned	नोट करके वापस किया जाता है
16.	Not in vogue	प्रचलित नहीं हैं
17.	Not satisfactory	संतोषजनक नहीं हैं
18.	Objection is Not valid	आपत्ति वैद्य/मान्य नहीं हैं
19.	On probation	परिवीक्षाधीन
20.	Order was cancelled	आदेश रद्द
21.	Paper under consideration	विचाराधीन पत्र
22.	Passed for payment	भुगतान के लिए पास किया
23.	Pending Cases	प्रलंबित मामले
24.	I agree	मैं सहमत हूँ
25.	In anticipation of	की प्रतीक्षा में

परिशिष्ट (ड)

	पदनाम संबंधी शब्द	
1.	Adviser	सलाहकार
2.	Accountant	लेखाकार
3.	Advocate	अधिवक्ता
4.	Cashier	रोकडिया / खजौंची
5.	Custodian	अभिरक्षक

6.	Councillor	पार्षद
7.	Director	निदेशक
8.	Executive Engineer	कार्यकारी अभियंता
9.	Foreign secretary	विदेश सचिव
10.	Governor	राज्यपाल
11.	His majesty	महामहिम
12.	Investigator	अन्वेषक
13.	Manager	प्रबंधक
14.	Member of legislative Assembly	विधायक
15.	Member of parliament	सासंद / संसद सदस्य
16.	President	राष्ट्रपति
17.	Prime minister	प्रधानमंत्री
18.	Registrar	कुलसचिव
19.	Speaker	सभापति
20.	Stenographer	आशुलिपिक
21.	Superintendent	अधीक्षक
22.	Treasurer	कोषाध्यक्ष
23.	Under secretary	अवर सचिव
24.	Vice Chancellor	कुलपति
25.	Warden	रक्षक

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र-V प्रश्नपत्र-XI

भाषा विज्ञान और हिंदी भाषा

Discipline Specific Elective (D.S.E.-E10)

(शैक्षिक वर्ष -2020 -21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

उद्देश्य :

- 1) भाषा के विविध रूपों का परिचय कराना ।
- 2) भाषा विज्ञान का सामान्य परिचय कराना ।
- 3) हिंदी भाषा एवं लिपि के उद्भव और विकास का परिचय कराना ।
- 4) भाषा की शुद्धता के प्रति छात्रों को जागृत करना ।
- 5) मानक हिंदी वर्तनी और व्याकरण से छात्रों को परिचित कराना ।

अध्यापन पद्धति

- स्वाध्याय .
- व्याख्यान, विवेचन तथा विश्लेषण
- संगोष्ठी तथा समूह चर्चा का आयोजन।
- अतिथियों एवं विद्वानों के व्याख्यान।
- दृक श्राव्य माध्यमों का प्रयोग।
- संगणक तथा इंटरनेट आदि साधनों का प्रयोग।

अध्ययनार्थ विषय –

इकाई 1– भाषा की परिभाषाएँ, भाषा की विशेषताएँ, भाषा की उत्पत्ति एवं तत्संबंधी विविध वाद-दैवी उत्पत्ति सिद्धांत, धातु सिद्धांत, अनुकरण सिद्धांत, श्रमपरिहार सिद्धांत, मनोभावाभिव्यंजक सिद्धांत, समन्वित सिद्धांत ।

इकाई 2– भाषा परिवर्तनशीलता के कारण ।

भाषा के विविध रूप– बोली और परिनिष्ठित भाषा ।

बोलियों के बनने के कारण, बोली और भाषा में अंतर ।

इकाई 3– हिंदी भाषा का उद्भव और विकास ।

हिंदी का शब्दसमूह, हिंदी भाषा के विविध रूप–राष्ट्रभाषा, राजभाषा, संपर्क भाषा ।

इकाई 4 – हिंदी की विविध बोलियाँ–अवधी, ब्रज, खड़ीबोली, भोजपुरी ।

लिपि विकास का सामान्य परिचय, देवनागरी लिपि की वैज्ञानिकता ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पुरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न ।	10
प्रश्न 2	इकाई 3 पर लघुत्तरीय प्रश्न (3 में से 2) ।	10
प्रश्न 3	इकाई 4 पर टिप्पणियाँ (3 में से 2) ।	10
प्रश्न 4	इकाई 1 और 2 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) ।	10

सत्र – VI प्रश्नपत्र –XVI

भाषा विज्ञान और हिंदी भाषा

DSE-E135

अध्ययनार्थ विषय –

इकाई 1—भाषाविज्ञान की परिभाषाएँ, भाषाविज्ञान के अध्ययन का महत्त्व, भाषाविज्ञान की वैज्ञानिकता ।

इकाई 2 —भाषाविज्ञान के प्रधान अंगों का परिचय—
ध्वनिविज्ञान, पदविज्ञान, शब्दविज्ञान, वाक्यविज्ञान, अर्थविज्ञान ।

इकाई 3 —भाषाविज्ञान का अन्य ज्ञान विज्ञानों से संबंध ।

1. भाषा विज्ञान और साहित्य
2. भाषाविज्ञान और व्याकरण ।
3. भाषाविज्ञान और समाजविज्ञान
4. भाषाविज्ञान और मनोविज्ञान ।
5. भाषाविज्ञान और इतिहास
6. भाषाविज्ञान और भूगोल ।

इकाई 4—कारकों के अर्थ और प्रयोग, पदक्रम, विरामचिह्न (केवल अल्पविराम, निर्देशक चिह्न(डैश) और अवतरणचिह्न) मानक वर्तनी के नियम ।

प्रश्नपत्र का स्वरूप एवं अंक विभाजन		अंक 40
प्रश्न 1	पूरे पाठ्यक्रम पर दस बहुविकल्पी प्रश्न ।	10
प्रश्न 2	इकाई 4 पर लघुत्तरीय प्रश्न (3 में से 2) ।	10
प्रश्न 3	इकाई 2 पर टिप्पणियाँ (3 में से 2) ।	10
प्रश्न 4	इकाई 1 और 3 पर दीर्घोत्तरी प्रश्न (अंतर्गत विकल्प के साथ) ।	10

संदर्भ ग्रंथ सूची

1. भाषाविज्ञान – डॉ.भोलानाथ तिवारी ।
2. भाषाविज्ञान की भूमिका— डॉ.देवेंद्रनाथ शर्मा ।
3. भाषाविज्ञान के तत्व— डॉ. राजनारायण मौर्य ।
4. भाषाविज्ञान और हिंदी भाषा – डॉ. सुधीर कलावडे ।
5. भाषाविज्ञान के सिद्धांत और हिंदी भाषा – डॉ. द्वारकाप्रसाद सक्सेना ।
6. संक्षिप्त भाषाविज्ञान— डॉ.सुरेशचंद्र त्रिवेदी ।
7. हिंदी— उद्भव विकास और रूप – डॉ.हरदेव बिहारी ।

8. हिंदी भाषा – डॉ.धीरेंद्र वर्मा ।
9. हिंदी भाषा की विकास यात्रा – डॉ.रामप्रकाश ।
10. हिंदी भाषा, व्याकरण लिपि विज्ञान – डॉ.हरदान हर्ष ।
11. हिंदी व्याकरण – कामताप्रसाद गुरू ।
12. नागरी लिपि और उसकी समस्याएँ – डॉ.नरेंद्र मिश्र ।
13. हिंदी की वर्तनी– कैलासचंद्र भाटिया, रचना भाटिया ।
14. मानक हिंदी का शुद्धिपरक व्याकरण – डॉ.रमेशचंद्र मेहरोत्रा ।
15. भाषाविज्ञान के सिद्धांत – डॉ.ओमप्रकाश शर्मा निराली, प्रकाशन, पुणे– 05 ।
- 16.भाषा विज्ञान एवं हिंदी भाषा–डॉ.गंगासहाय प्रेमी,डॉ.त्रिलोकनाथ श्रीवास्तव ,साहित्य सरोवर प्रकाशन, प्रभु नगर, आगरा–01 ।

शिवाजी विश्वविद्यालय, कोल्हापुर

हिंदी अध्ययन मंडल

जून 2020 से लागू

हिंदी स्पेशल बी.ए.-3 (कला)

सत्र-V ,VI

Discipline Specific Elective

(शैक्षिक वर्ष -2020-21, 2021-22, 2022-23)

प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की मॉडल

पाठ्यचर्या (CBCS) के आलोक में किया गया है।

समकक्षता

अ.क्र	पुराना प्रश्नपत्र	अ.क्र	नया प्रश्नपत्र
1	प्रश्नपत्र क्रमांक : 7	1	प्रश्नपत्र क्रमांक : 7
	प्रश्नपत्र क्रमांक : 12		प्रश्नपत्र क्रमांक : 12
2	प्रश्नपत्र क्रमांक : 8	2	प्रश्नपत्र क्रमांक : 8
	प्रश्नपत्र क्रमांक : 13		प्रश्नपत्र क्रमांक : 13
3	प्रश्नपत्र क्रमांक : 9	3	प्रश्नपत्र क्रमांक : 9
	प्रश्नपत्र क्रमांक : 14		प्रश्नपत्र क्रमांक : 14
4	प्रश्नपत्र क्रमांक : 10	4	प्रश्नपत्र क्रमांक : 10
	प्रश्नपत्र क्रमांक : 15		प्रश्नपत्र क्रमांक : 15
5	प्रश्नपत्र क्रमांक : 11	5	प्रश्नपत्र क्रमांक : 11
	प्रश्नपत्र क्रमांक : 16		प्रश्नपत्र क्रमांक : 16

SHIVAJI UNIVERSITY, KOLHAPUR



Accredited by NAAC 'A++' Grade

**CHOICE BASED CREDIT SYSTEM WITH
MULTIPLE ENTRY AND MULTIPLE EXIT OPTIONS IN THE
UNDERGRADUATE DEGREE PROGRAMMES**

(Regulations in accordance with National Education Policy
2020 to be implemented from Academic Year
2022-23 onwards)

समकक्षता

		जुना अभ्यासक्रम		नवा अभ्यासक्रम
सत्र क्र. Sem.	अभ्यास पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव	अभ्यास पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव
I	I	शब्दसंहिता	I	शब्दसंहिता
II	II	शब्दसंहिता	II	शब्दसंहिता
I	I	अक्षरबंध	I	अक्षरबंध
II	II	अक्षरबंध	II	अक्षरबंध

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

बी.ए.१/बी.कॉम.१ : B.A. I/B.Com I

अभ्यासक्रम : Syllabus

June 2022 onward

Board of Studies in Marathi

C. B. C. S. with M.E. & M. E. in accordance with N.E.P. - 2020

Generic Elective Core (GEC-1) : Marathi (Course - A)

अनुषंगिक निवड (GEC-1) : मराठी (अभ्यासपत्रिका - अ)

सत्र १ : Semester - I

पाठ्यपुस्तक - शब्दसंहिता

१. नापास मुलांची गोष्ट (निवडक लेख)

संपा. अरुण शेवते, ऋतुरंग प्रकाशन, मुंबई.

२. व्यक्तिमत्त्व विकास आणि भाषा

उद्दिष्टे :

१. विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित करणे.
२. मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय करून देणे.
३. विद्यार्थ्यांमध्ये मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्यांविषयी जाणीव निर्माण करणे.
४. विद्यार्थ्यांचा व्यक्तिमत्त्व विकास घडवून विविध परीक्षा आणि स्पर्धा परीक्षांची पूर्वतयारी करून घेणे.
५. निबंधलेखनाच्या माध्यमातून भाषा उपयोजनाची कौशल्ये विकसित करणे.

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	१) निवड - यशवंतराव चव्हाण २) वाटेवरच्या सावल्या - कुसुमाग्रज ३) पन्नास पैकी शून्य मार्कस् - शांताबाई शेळके	१५	१
विभाग २ Module II	४) शब्दांचे मोल - चंद्रशेखर धर्माधिकारी ५) संगमनेरचे दिवस - दया पवार व्यक्तिविशेष लेख : ६) संकल्प सिद्धीला नेणारा महापुरुष : डॉ. बापूजी साळुंखे - बळवंत देशमुख	१५	१
विभाग ३ Module III	● व्यक्तिमत्त्व संकल्पना ● व्यक्तिमत्त्व विकासासाठी आवश्यक घटक ● व्यक्तिमत्त्व विकासात भाषेचे महत्त्व	१५	१
विभाग ४ Module IV	● भाषिक कौशल्ये(श्रवण, वाचन, भाषण आणि लेखन कौशल्ये) ● कार्यक्रमाचे संयोजन - स्वागत, प्रास्ताविक, परिचय, मनोगत, आभार, सूत्रसंचलन आणि कार्यक्रमाचे फलकलेखन	१५	१

संदर्भ ग्रंथसूची:

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	बदलते मराठी साहित्य व संस्कृती	संपा. विलास रणसुभे	श्रमिक प्रतिष्ठान, कोल्हापूर
२	शिक्षण महर्षी डॉ. बापूजी साळुंखे	संपा. सुरेश पाटील, तुकाराम पाटील	पारख प्रकाशन, बेळगांव
३	निळी पहाट	रा. ग. जाधव	सुरेश एजन्सी, पुणे
४	साहित्यसंवाद	वि. शं. चौधुले	प्रतिमा प्रकाशन, पुणे
५	मराठी साहित्यातील स्पंदने	गो. म. कुलकर्णी	सुपर्ण प्रकाशन, पुणे
६	साहित्यातील विचारधारा	के. रं. शिरवाडकर	पद्मगंधा प्रकाशन, पुणे
७	चिंतनाच्या वाटा	निर्मलकुमार फडकुले	मेहता पब्लिशिंग हाऊस, पुणे
८	साहित्य समजून घेताना	दत्ता भगत	मीरा बुक्स अँड पब्लिकेशन, औरंगाबाद
९	साहित्य : मूल्य आणि मूल्यांकन	निशिकांत ठकार	सुविधा प्रकाशन, सोलापूर
१०	साहित्य, भाषा आणि समाज	मिलिंद बोकिल	मौज प्रकाशन, मुंबई
११	व्यावहारिक मराठी	ल.रा. नसिराबादकर	फडके प्रकाशन, कोल्हापूर
१२	भाषिक सर्जन आणि उपयोजन	राजन गवस, अरुण शिंदे, गोमटेश्वर पाटील	दर्या प्रकाशन, पुणे
१३	व्यावहारिक मराठी	स्नेहल तावरे	स्नेहवर्धन प्रकाशन, पुणे
१४	सूत्रसंचलन : एक प्रयत्नसाध्य कला	श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, इस्लामपूर

प्रश्नपत्रिकेचे स्वरूप
Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने गृहपाठ असेल.

३) या सत्रात प्रत्येक विद्यार्थ्याने Skill Enhancement Course (SEC) पुढील लिंकवर जावून पूर्ण करणे बंधनकारक राहील.

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४) या सत्रात प्रत्येक विद्यार्थ्याने बहाही अकादमी, पाचगणी यांचा Value Based Course पूर्ण करणे बंधनकारक.

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

बी.ए.१/बी.कॉम.१ : B.A. I/B.Com I

अभ्यासक्रम : Syllabus

June 2022 onward

Board of Studies in Marathi

C. B. C. S. with M.E. & M. E. in accordance with N.E.P. - 2020

Generic Elective Core (GEC-2) : Marathi (Course - B)

अनुषंगिक निवड (GEC-2) : मराठी (अभ्यासपत्रिका - ब)

सत्र २ : Semester - II

पाठ्यपुस्तक - शब्दसंहिता

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	१. संत नामदेव १) पतितपावन २) पंढरीस जावे २. अनंत फंदी १) जमाना आला उफराटा २) हे मुखी खूण तर्का ३. महात्मा फुले १) मानवांचा धर्म एक २) धीर ४. बालकवी १) फुलराणी २) अप्सरांचे गाणे	१५	१
विभाग २ Module II	५. विंदा करंदीकर १) माझ्या मना बन दगड २) झपताल ६. वाहरू सोनवणे १) गोधड २) चळवळ म्हणजे ७. प्रज्ञा दया पवार १) माणसासारखा माणूस असूनही २) आग आणि फुफाटा ८. एकनाथ पाटील १) शहर एक उदास पोकळी २) शोधयात्रा	१५	१
विभाग ३ Module III	● निबंधाचे स्वरूप, व्याप्ती ● निबंधाचे घटक ● निबंधाचे प्रकार ● निबंधाची वैशिष्ट्ये	१५	१
विभाग ४ Module IV	● निबंध लेखन (प्रात्यक्षिकासह वर्गात सराव करून घेणे)	१५	१

संदर्भ ग्रंथसूची :

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	नामदेव गाथा	ह. श्री. शेणोलीकर	साहित्य अकदमी, नवी दिल्ली
२	अनंत फंदी यांच्या कविता व लावण्या	संपा. मधुकर मोढे	पद्मगंधा प्रकाशन, पुणे
३	महात्मा फुले समग्र वाङ्मय	संपा. धनंजय कीर व इतर	महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ, मुंबई
४	समग्र बालकवी	संपा. नंदा आपटे	पॉप्युलर प्रकाशन, मुंबई
५	संहिता	संपा. मंगेश पाडगावकर	कॉन्टिनेन्टल प्रकाशन, पुणे
६	गोधड	वाहरू सोनवणे	रविराज प्रकाशन, पुणे
७	मी भिडवू पाहतेय समग्राशी डोळा	प्रज्ञा पवार	ग्रंथाली, मुंबई
८	खुंट्यांवर टांगलेली दुःखं	एकनाथ पाटील	पॉप्युलर प्रकाशन, मुंबई.
९	संत नामदेव	हे. वि. इनामदार	केसरी प्रकाशन, पुणे
१०	संत नामदेव : समाजशास्त्रीय अभ्यास	श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, पुणे
११	मराठी शाहिरी वाङ्मयाचे स्वरूप	चंद्रकांत व्यवहारे	विश्वभारती प्रकाशन, नागपूर
१२	मराठी साहित्य प्रेरणा व स्वरूप	संपा. गो. मा. पवार, म.द. हातकणंगलेकर	पॉप्युलर प्रकाशन, मुंबई
१३	साहित्य अध्यापन व प्रकार	संपा. श्री. पु. भागवत व इतर	पॉप्युलर प्रकाशन, मुंबई
१४	मराठी कविता आणि आधुनिकता	यशवंत मनोहर	सुगावा प्रकाशन, पुणे
१५	आदिवासी साहित्य आणि संस्कृती	भुजंग मेश्राम	लोकवाङ्मय गृह, मुंबई
१६	आदिवार्ता (वाहरू सोनवणे विशेषांक)	संपा. दिपककुमार वळवी, उमाकांत वळवी	शिवकमल प्रकाशन, कोल्हापूर
१७	वाहरू सोनवणे : व्यक्तीपासून समष्टीपर्यंतचा सम्यक प्रवास	संपा. प्रशांत नागावकर	सम्यक विद्रोही प्रबोधन प्रकाशन, कोल्हापूर
१८	वर्तमान पिढीचे संदर्भ	संपा. चंद्रकांत पोतदार	द.म.सा.प्रकाशन, कोल्हापूर
१९	काव्याची भूषणे	म.वा. धोंड	पद्मगंधा प्रकाशन, पुणे
२०	मराठी कवितेच्या नव्या दिशा	महेंद्र भवरे	लोकवाङ्मय गृह, मुंबई
२१	आदिवासी साहित्य	अमर कांबळे	निर्मिती प्रकाशन, कोल्हापूर
२२	मराठी निबंध	रा. ग. जाधव	कॉन्टिनेन्टल प्रकाशन, पुणे
२३	मराठी निबंध : उद्गम आणि विकास	गिरीश मोरे	स्वरूप प्रकाशन, औरंगाबाद

प्रश्नपत्रिका स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks – 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील निबंधलेखन (चार पैकी एक)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने घटक चाचणी असेल.

३)) या सत्रात प्रत्येक विद्यार्थ्याने Skill Enhancement Course (SEC) पुढील लिंकवर जावून पूर्ण करणे बंधनकारक राहिल.

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शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

बी.ए.१ : B.A. I

अभ्यासक्रम : Syllabus

June 2022 onward

Board of Studies in Marathi

C. B. C. S. with M.E. & M. E. in accordance with N.E.P. - 2020

Discipline Specific Core (DSC-A1) : Marathi (Course - I)

विद्याशास्त्रीय विशेष गाभा (DSC-A1) : मराठी (अभ्यासपत्रिका - १)

सत्र १ : Semester - I

पाठ्यपुस्तक - अक्षरबंध

१. कथा - निवडक भास्कर चंदनशिव - लाल चिखल (निवडक कथा)

संपा. इंद्रजित भालेराव, लोकवाङ्मय गृह, मंबई.

२. चित्रपट : आस्वाद प्रक्रिया

उद्दिष्टे :

१. विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित करणे.
२. मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय करून देणे.
३. विद्यार्थ्यांमध्ये मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्यांविषयी जाणीव निर्माण करणे.
४. विद्यार्थ्यांचा व्यक्तिमत्त्व विकास घडवून विविध परीक्षा आणि स्पर्धा परीक्षांची पूर्वतयारी करून घेणे.
५. चित्रपट आणि प्रसारमाध्यमे यांच्या लेखन आणि उपयोजनाच्या आकलनाचा अवकाश वाढविणे.

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	कथा - निवडक भास्कर चंदनशिव उमाळं जांभळढव्ह तडा	१५	१
विभाग २ Module II	वासना लाल चिखल पाणी	१५	१
विभाग ३ Module III	चित्रपट म्हणजे काय? चित्रपट : एक दृक श्राव्य माध्यम चित्रपट : माध्यमांतर दिग्दर्शकाचा दृष्टिकोन छायाचित्रण	१५	१
विभाग ४	चित्रपटाची कथा - पटकथा - संवाद	१५	१

Module IV	चित्रपटाचे संगीत - गीत अभिनय ध्वनी - प्रकाशयोजना - वेशभूषा संकलन - संपादन चित्रपटाचा आश्वाद		
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संदर्भ ग्रंथसूची :

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	मराठी कथा : रूप आणि परिसर	म. द. हातकणंगलेकर	सुपर्ण प्रकाशन, पुणे
२	भास्कर चंदनशिव यांची कथा आणि स्वरूप	सुनील चंदनशिवे	शब्दाली प्रकाशन, पुणे
३	कथाकार भास्कर चंदनशिव	मथू सावंत	सुविधा प्रकाशन, सोलापूर
४	मराठी साहित्य : आकलन आणि आस्वाद	विश्वनाथ शिंदे	शब्दालय प्रकाशन, श्रीरामपूर
५	माती आणि नाती	भास्कर चंदनशिव	निर्मल प्रकाशन, नांदेड
६	ग्रामीण साहित्य आणि संस्कृती	मोहन पाटील	स्वरूप प्रकाशन, औरंगाबाद
७	शूटिंग	श्री. दा. पानवलकर	मौज प्रकाशन, मुंबई
८	सय	सई परांजपे	पॉप्युलर प्रकाशन, मुंबई
९	लमाण	डॉ. श्रीराम लागू	पॉप्युलर प्रकाशन, मुंबई
१०	सामना (चित्रपटाची पटकथा)	विजय तेंडूलकर	नीलकंठ प्रकाशन, पुणे
११	चौकटीबाहेरचा सिनेमा	गणेश मतकरी	पॉप्युलर प्रकाशन, मुंबई
१२	चलतचित्र	अरुण खोपकर	राजहंस प्रकाशन, पुणे
१३	अभिनयाचे प्राथमिक सहा पाठ	सदाशिव अमरापूरकर, विनायक दातेगावकर	लोकवाडमयगृह प्रकाशन, मुंबई.

प्रश्नपत्रिका स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने गृहपाठ असेल.

३) या सत्रात प्रत्येक विद्यार्थ्याने Skill Enhancement Course (SEC) पुढील लिंकवर जावून पूर्ण करणे बंधनकारक राहिल.

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४) या सत्रात प्रत्येक विद्यार्थ्याने बहाही अकादमी, पाचगणी यांचा Value Based Course पूर्ण करणे बंधनकारक.

शिवाजी विद्यापीठ, कोल्हापूर

SHIVAJI UNIVERSITY, KOLHAPUR

बी.ए.१ : B.A. I

अभ्यासक्रम : Syllabus

June 2022 onward

Board of Studies in Marathi

C. B. C. S. with M.E. & M. E. in accordance with N.E.P. - 2020

Discipline Specific Core (DSC-A13) : Marathi (Course - II)

विद्याशास्त्रीय विशेष गाभा (DSC-A13) : मराठी (अभ्यासपत्रिका - २)

सत्र २ : Semester - II

पाठ्यपुस्तक - अक्षरबंध

१. कविता : ... बाकी सर्व ठीक आहे - लोकनाथ यशवंत (निवडक कविता)

प्रकाशक - समुद्र पब्लिकेशन, नागपूर

२. वृत्तपत्रीय व स्पर्धा परीक्षेसाठी लेखन

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	...बाकी सर्व ठीक आहे - लोकनाथ यशवंत (निवडक कविता) १) जीवाचा आटापिटा २) मुख्यप्रवाह ३) एका वृक्षाची गोष्ट ४) राग ५) जीवन सुंदर आहे ६) भविष्य ७) तडजोड ८) पर्सनल मुलाखत	१५	१
विभाग २ Module II	९) गौडबंगाल १०) पर्यावरण ११) सोन्याचा दात १२) मांजर १३) स्पर्श १४) युद्ध असे सुरू होते १५) जन्म आईचा १६) शेतमजूर	१५	१
विभाग ३ Module III	वृत्तपत्रीय लेखन ● बातमी ● अग्रलेख ● वाचकांचा पत्रव्यवहार ● नाटक/चित्रपट परीक्षण	१५	१

विभाग ४ Module IV	उपयोजित व स्पर्धा परीक्षेसाठी लेखन अ) पत्रलेखन : पत्रलेखनाचे स्वरूप व प्रकार, पत्रलेखनाचे बदलते स्वरूप - ई. पत्रव्यवहार, प्रात्यक्षिकासह पत्रलेखन ब) आकलन : <ul style="list-style-type: none"> आकलनाचे स्वरूप उताऱ्याचे आकलन कवितेचे आकलन प्रात्यक्षिकासह उतारा व कवितेवरील आकलन 	१५	१
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संदर्भ ग्रंथसूची :

अ.क्र.	ग्रंथाचे नांव	लेखक/संपादक	प्रकाशन
१	दलित साहित्याची वैचारिक पार्श्वभूमी	जनार्दन वाघमारे	स्वरूप प्रकाशन, औरंगाबाद
२	दलित साहित्य : एक अभ्यास	संपा. अर्जुन डांगळे	सुगावा प्रकाशन, पुणे
३	दलित कवितेचे नवे प्रवाह	महेंद्र भवरे	शब्दालय प्रकाशन, श्रीरामपूर
४	दलित कविता व दलित साहित्याचे सौंदर्यशास्त्र	म. सु. पाटील	पद्मगंधा प्रकाशन, पुणे
५	बदलते मराठी साहित्य व संस्कृती	संपा. विलास रणसुभे	श्रमिक प्रतिष्ठान, कोल्हापूर
६	साहित्य, भाषा आणि समाज	मिलिंद बोकिल	मौज प्रकाशन, मुंबई
७	मराठी कविता : आकलन आणि आस्वाद	नागनाथ कोत्तापल्ले	स्वरूप प्रकाशन, औरंगाबाद
८	आंबेडकरी साहित्य : स्थिती आणि स्थित्यंतरे	भगवान ठाकूर	आकांक्षा प्रकाशन, पुणे
९	सदाचार अर्थात नैतिक मूल्यांचे शिक्षण	संपा. रघुनाथ केंगार, दादासाहेब यादव	क्रांतिबा प्रकाशन, कराड
१०	व्यावहारिक मराठी	संपा. सयाजीराजे मोकाशी, रंजना नेमाडे	नागनालंदा प्रकाशन, इस्लामपूर
११	भाषिक सर्जन व उपयोजन	राजन गवस, अरूण शिंदे, गोमटेश्वर पाटील	दर्या प्रकाशन, पुणे
१२	व्यावहारिक मराठी	स्नेहल तावरे	स्नेहवर्धन प्रकाशन, पुणे
१३	प्रबोधनाची निवडक पत्रे	डॉ. श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, इस्लामपूर

प्रश्नपत्रिका स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने घटक चाचणी असेल.

३) या सत्रात प्रत्येक विद्यार्थ्याने Skill Enhancement Course (SEC) पुढील लिंकवर जावून पूर्ण करणे बंधनकारक राहील.

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SHIVAJI UNIVERSITY, KOLHAPUR

बी.ए. भाग-२ : B.A. Part-II

अभ्यासक्रम : Syllabus

June, 2019 onward

मराठी अभ्यास मंडळ

Board of Studies in Marathi

Choice Based Credit System

सत्र-३ : Semester No. III

Discipline Specific Core Course (DSC-C1) Marathi Paper No.III

विद्याशाखीय विशेष गाभा (DSC-C1) (अभ्यासपत्रिका - ३)

साहित्यकृती : काय डेंजर वारा सुटलाय! (नाटक)

जयंत पवार, पॉप्युलर प्रकाशन, मुंबई, २०११

: मराठी भाषिक कौशल्ये

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१९

उद्दिष्ट्ये:

१. नाटक या वाङ्मय प्रकाराचे आकलन करून घेणे.
२. समकालीन नाटकातून नाटककाराच्या समकालाचे प्रतिबिंब कशाप्रकारे प्रकट होते याचा अभ्यास करणे.
३. नाट्याभ्यासाद्वारे प्रयोगरूप नाटक व नाट्यक्षेत्रातील ज्ञानसंपादनास चालना देणे.
४. नाट्याभ्यासातून सभ्यता, संस्कृती, राष्ट्रीय एकात्मता व बंधुता वाढीस लावणे.
५. विद्यार्थ्यांमध्ये संवादलेखन कौशल्ये विकसित करणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	काय डेंजर वारा सुटलाय! – आशयसूत्रे	१५	१
विभाग २ Module II	काय डेंजर वारा सुटलाय! – पात्रे, घटनाप्रसंग, संवाद व संघर्षाचे स्वरूप	१५	१
विभाग ३ Module III	काय डेंजर वारा सुटलाय! – नाट्यविशेष व भाषाविशेष	१५	१
विभाग ४ Module IV	उपयोजित मराठी – संवाद लेखन ● संवाद : स्वरूप आणि व्याख्या ● संवाद कौशल्यासाठी आवश्यक बाबी ● संवादाचे प्रकार ● उदाहरणदाखल कथानकावर संवादलेखन	१५	१

मूलभूत वाचन :

१. कदम-जांगडा, नीलिमा लेख- 'अंतर्बाह्य हादरवणारा वारा' दै. वृत्तमाणूस, मुंबई, १४/८/२०१०
२. करमकर, दीपेश लेख- 'जागतिकीकरणाचा डेंजर वारा' आपला परममित्र (दिवाळी अंक) नोव्हें., डिसेंबर, २०१२
३. बागले, प्रभाकर लेख- 'काय डेंजर वारा सुटलाय-एक विचार' साहित्य आणि सांस्कृतिक संवेदन, शब्दालय प्रकाशन, श्रीरामपूर.
४. जोशी, संजय भास्कर लेख- 'लक्षवेधी पुस्तके - काय डेंजर वारा सुटलाय' ललित, सप्टें., २०११
५. पवार, जयंत लेख- 'एका गुंत्याचा गुंताडा' साधना, पुणे, १२ जाने., २०१३
६. आठलेकर, मंगल लेख- 'खूप मोठं अवसान गोळा करावं लागतं' साधना, पुणे, १२ जाने., २०१३
७. गमरे, गौतम बा. लेख- 'काय डेंजर वारा सुटलाय' रंगवाचा (मासिक), फेब्रु., २०१७
८. गुप्ते, विश्राम लेख- 'काय डेंजर वारा सुटलाय-बोलकी हिंसा' परिवर्तन (त्रैमासिक), मुंबई, एप्रिल, मे, जून, २०१२
९. नाडकर्णी, कमलाकर लेख- 'काय डेंजर वारा सुटलाय' दै. आपलं महानगर, मुंबई, २० ऑगस्ट, २०१०

पूरक वाचन :

१०. धांडे, चंद्रकांत मराठी नाट्यसमीक्षेचा इतिहास, परिमल प्रकाशन, औरंगाबाद
११. कुलकर्णी, व. दि. नाटक : रंगाविष्कार आणि रंगास्वाद, पद्मगंधा प्रकाशन, पुणे
१२. शिंदे, विश्वनाथ व स्मार्त, हिमांशू मराठी नाटक आणि रंगभूमी, प्रतिमा प्रकाशन, पुणे, २००८
१३. कुलकर्णी, द. भि. नाटक : स्वरूप आणि समीक्षा, पद्मगंधा प्रकाशन, पुणे
१४. भावे, पुष्पा रंग नाटकाचे, राजहंस प्रकाशन, मुंबई
१५. गावडे, गोपाळ मामा वरेरकर : प्रयोगाची नांदी, मनोकामना प्रकाशन, इस्लामपूर, २०१७
१६. भगत, दत्ता मराठी नाटक आणि रंगभूमीचा इतिहास: आरंभ ते १९९० पर्यंत, प्रकाशक महाराष्ट्र राज्य साहित्य, संस्कृती मंडळ, २०१९
१७. कानडे, मु. श्री. मराठी रंगभूमीची १२५ वर्षे : नाट्यविषयक ठळक नोंदी, स्नेहवर्धन पब्लिशिंग हाऊस पुणे, २०१०
१८. घोरपडे, अक्षय संवाद आणि लेखन कौशल्ये, प्रशांत पब्लिकेशन, जळगांव, २०१९
१९. तौर, पृथ्वीराज (संपा.) मराठी भाषिक कौशल्ये विकास, अथर्व पब्लिकेशन, धुळे, २०१८
२०. जोशी, प्रभाकर व वले, वासुदेव उपयोजित मराठी भाग १, प्रशांत पब्लिकेशन, जळगांव, २०१७
२१. जोशी, प्रभाकर उपयोजित मराठी, प्रशांत पब्लिकेशन, जळगांव, २०१७

* प्रश्नपत्रिकेचे स्वरूप *

Pattern of Question Paper

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (तीन पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वर लघुत्तरी प्रश्न (चार पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

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Board of Studies in Marathi

Choice Based Credit System

सत्र-३ : Semester No. III

Discipline Specific Core Course (DSC-C2) Marathi Paper No. IV

विद्याशाखीय विशेष गाभा (DSC-C2) (अभ्यासपत्रिका - ४)

पाठ्यपुस्तक : काव्यगंध

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१९

: मराठी भाषिक कौशल्ये

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१९

उद्दिष्ट्ये:

१. मराठी काव्यपरंपरा व प्रवाहांची ओळख करून घेणे.
२. मराठी काव्यातून प्रकट होणारे माणूस आणि समाज यातील परस्पर संबंध शोधणे.
३. कवितेच्या कलात्मक आकृतीबंधाचे मोल अभ्यासणे.
४. काव्यप्रवाहानुरूप काव्यलेखनाचे विशेष अभ्यासणे.
५. प्रात्यक्षिकाद्वारे काव्यलेखन कौशल्ये रुजविणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	केशवसुत- १. अंत्यजाच्या मुलाचा पहिला प्रश्न २. नवा शिपाई (सामाजिक) ३. तुतारी ४. मजुरावर उपासमारीची पाळी ५. गोफण केली छान! वसंत बापट- १. फुंकर २. जपावयाला शिकली होतीस ३. आज (प्रेमविषयक) अचानक ४. नाजुक रुपडे ५. विस्मृती	१५	१
विभाग २ Module II	नारायण सुर्वे- १. दोन दिवस २. माझी आई ३. गिरणीची लावणी (श्रमविषयक) ४. पोष्टर ५. नेहरू गेले त्या वेळची गोष्ट वसंत आबाजी डहाके- १. त्या संध्याकाळी समुद्र २. आख्यान (महानगरीय) ३. खेळ ४. पुतळे ५. वास्तववाद	१५	१
विभाग ३ Module III	अजीम नवाज राही- १. दुष्काळ : काही संदर्भ (वंचितांची कविता) २. जातीय दंगल : बारा भानगडींची तेरा वळणे ३. सुरक्षेची हमी देणारा कळपवाद! ४. मोडतोडीतून डागडुजीची भाषा शिकताना ५. मोहल्ला, पक्षी आणि कातरवेळ कल्पना दुधाळ- १. बाय आणि गाय २. झुलत्या फांदीला (कृषी जाणीव) ३. घोषणा ४. खस्ता ५. धग असतेच आसपास	१५	१
विभाग ४ Module IV	उपयोजित मराठी - काव्यनिर्मिती प्रक्रिया १. प्रसंगावर २. घटनेवर ३. चित्रावर ४. अनुभवावर	१५	१

मूलभूत वाचनः

१. पंडित, भ. श्री. (संपा.)	समग्र केशवसुत, व्हीनस प्रकाशन, पुणे
२. क्षीरसागर, शकुंतला	संपूर्ण केशवसुत, पॉप्युलर प्रकाशन, मुंबई, २००१
३. बापट, वसंत	सेतू, पॉप्युलर प्रकाशन, मुंबई, पुनर्मुद्रण, २००४
४. कुसुमाग्रज (संपा.)	निवडक नारायण सुर्वे, लोकवाङ्मयगृह, मुंबई, १९९४
५. सुर्वे, नारायण	माझे विद्यापीठ, पॉप्युलर प्रकाशन, मुंबई, आवृत्ती २ री, २००५
६. डहाके, वसंत आबाजी	शुभवर्तमान, मौज प्रकाशन, मुंबई, १९९७
७. डहाके, वसंत आबाजी	शुनःशेष, लोकवाङ्मयगृह, मुंबई, १९९६
८. डहाके, वसंत आबाजी	चित्रलिपी, लोकवाङ्मयगृह, मुंबई, २००६
९. राही, अजीम नवाज	व्यवहाराचा काळा घोडा, मुक्तछंद प्रकाशन, नागपूर, २००४
१०. राही, अजीम नवाज	कल्लोळातला एकांत, अक्षरमानव प्रकाशन, पुणे, २०१२
११. राही, अजीम नवाज	वर्तमानाचा वतनदार, लोकवाङ्मयगृह, मुंबई, २०१७
१२. दुधाळ, कल्पना	सिद्धार कर म्हणतेय माती, हर्मिस प्रकाशन, पुणे
१३. दुधाळ, कल्पना	धग असतेच आसपास, लोकवाङ्मयगृह, मुंबई
१४. कदम, महेंद्र	लेख-कल्पना दुधाळ यांचं शेतीशास्त्र, साप्ता. विवेक, ५ मार्च, २०१८
१५. धसकटे, सुशील	मुलाखत-कल्पना दुधाळ यांची मुलाखत, अक्षरनामा, १२ जाने., २०१८
१६. शर्मा, नीला	लेख-कल्पना व वास्तवादरम्यानचा पूल ठरलेली कविता, दै.सकाळ, ८ मार्च, २०१८
१७. कदम, महेंद्र	लेख-कल्पना दुधाळ यांच्या कवितेची शैली, कवितेची शैली, अक्षरवाङ्मय, पुणे, २०१९
१८. शानेदिवान, राजेखान	भारतीय मुसलमानःवर्तमान आणि भविष्य, अक्षरदालन प्रकाशन, कोल्हापूर
१९. कुलकर्णी, अंजली	लेख-वर्तमानाचा स्वशोध, दै. लोकसत्ता, पुणे १५ एप्रिल, २०१८
२०. चांदवडकर, तुषार	लेख-वर्तमानाचा वतनदार, दै.सकाळ, रविवार पुरवणी, २९ एप्रिल, २०१८

पूरक वाचनः

२१. सानप, किशोर	युगांतराची कविता, ग्रंथाली प्रकाशन, मुंबई
२२. पी. विठ्ठल	मराठी कविताःसमकालीन परिदृश्य, कैलाश पब्लिकेशन्स, औरंगाबाद, २०१९
२९. रसाळ, सुधीर	काही मराठी कवी : जाणिवा आणि शैली, प्रतिमा प्रकाशन, पुणे, १९९६
३०. सुर्वे, कृष्णाबाई नारायण	मास्तरांची सावली, डिंपल प्रकाशन, मुंबई

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (चार पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वर लघुत्तरी प्रश्न (चार पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

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अभ्यासक्रम : Syllabus

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Choice Based Credit System

सत्र-४ : Semester No. IV

Discipline Specific Core Course (DSC-C25) Marathi Paper No. V

विद्याशाखीय विशेष गाभा (DSC-C25) (अभ्यासपत्रिका - ५)

साहित्यकृती : माती, पंख आणि आकाश (आत्मचरित्र)

ज्ञानेश्वर मुळे, मनोविकास प्रकाशन, पुणे, आवृत्ती अकरावी, २०१७

: मराठी भाषिक कौशल्ये

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१९

उद्दिष्ट्ये:

१. आत्मचरित्र या वाङ्मयप्रकाराची ओळख करून घेणे.
२. इतर वाङ्मयप्रकार आणि आत्मचरित्र यातील अभिव्यक्ती रूपांचा अभ्यास करणे.
३. आत्मचरित्रकाराच्या व्यक्तिमत्त्वाची जडण-घडण आणि त्याचा समकाल समजून घेणे.
४. वेगवेगळ्या भारतीय प्रांतातील व परदेशातील जीवनदर्शन समजून घेणे.
५. आत्मवृत्तपर लेखन कौशल्ये विकसित करणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	माती, पंख आणि आकाश – जीवनानुभवाचे स्वरूप	१५	१
विभाग २ Module II	माती, पंख आणि आकाश – शैक्षणिक, सामाजिक आणि सांस्कृतिक पर्यावरण	१५	१
विभाग ३ Module III	माती, पंख आणि आकाश – वाङ्मयीन गुणविशेष	१५	१
विभाग ४ Module IV	उपयोजित मराठी – आत्मवृत्तलेखनाचे स्वरूप १. आत्मकथन/स्वकथन २. प्रवास वर्णन ३. रोजनिशी	१५	१

मूलभूत वाचनः

१. हातकणंगलेकर, म.द. लेख-अंतःकरणाचा ठाव घेणारे वेगळ्या धाटणीचे आत्मकथन, दै. सकाळ, १ मार्च, १९९८
२. खाडिलकर, मीना लेख-वेगळ्या घाटाचे आत्मचरित्र, दै. तरुण भारत, २६ जुलै, १९९८
३. लोकापुरे, राजू लेख-माती, पंख आणि आकाश, दै. महासत्ता, ३० ऑगस्ट, १९९८
४. लाटकर, मानसी लेख-माती, पंख आणि आकाश, दै. लोकसत्ता, लोकरंग, ६ सप्टें., १९९८
५. कोटीभस्कर, मधुमालती लेख-ललितरम्य शैलीतील आत्मचरित्र, दै. पुढारी, ३१ जाने., १९९९.
६. महांबरे, गंगाधर लेख-मातीतून घेतलेल्या आकाशभराची सुरस, सफल आत्मकहानी, दै. सकाळ, ४ जुलै, १९९९

पूरक वाचनः

८. जोशी, अ. म. चरित्र-आत्मचरित्र, स्नेहवर्धन प्रकाशन, पुणे
९. भोसले, नारायण अविस्मरणीय चरित्र - आत्मचरित्रे, अथर्व पब्लिकेशन, जळगाव
१०. हस्तक, उषा मराठीतील आत्मचरित्रात्मक लेखन, स्नेहवर्धन प्रकाशन, पुणे
११. शानेदिवान, राजेखान खाली जमीन वर आकाश - एक विमर्ष, शब्दवेल प्रकाशन, कोल्हापूर, २००८
१२. काळसेकर, सतीश वाचणाऱ्याची रोजनिशी, लोकवाङ्मयगृह, मुंबई

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (तीन पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

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सत्र-४ : Semester No. IV

Discipline Specific Core Course (DSC-C26) Marathi Paper No. 6

विद्याशाखीय विशेष गाभा (DSC-C26) (अभ्यासपत्रिका - ६)

साहित्यकृती : जुगाड (कादंबरी)

किरण गुरव, दर्या प्रकाशन, पुणे, २०१८

: मराठी भाषिक कौशल्ये

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१९

उद्दिष्ट्ये:

१. कादंबरी वाङ्मयप्रकाराची ओळख करून घेणे.
२. समकालीन कादंबरीतील नव्या अवकाशाचा शोध घेणे व आधुनिकतेमधील अंतर्विरोध समजून घेणे.
३. मानवी मूल्यांविषयी जाणीव निर्माण करणे.
४. कादंबरीलेखनाचे विशेष अभ्यासणे.
५. वृत्तांतलेखन कौशल्ये रुजविणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	जुगाड - आशयसूत्रे	१५	१
विभाग २ Module II	जुगाड - घटना, प्रसंग आणि व्यक्तिरेखांचे स्वरूप व पर्यावरण	१५	१
विभाग ३ Module III	जुगाड - वाङ्मयीन विशेष	१५	१
विभाग ४ Module IV	उपयोजित मराठी - वृत्तांतलेखन : <ul style="list-style-type: none">● वृत्तांतलेखनाचे स्वरूप● वृत्तांतलेखनाचे घटक आणि वैशिष्ट्ये● वृत्तांतलेखकाच्या अंगी आवश्यक गुण● साहित्य/संशोधन/शैक्षणिक स्थळास अभ्यास सहलीद्वारे प्रत्यक्ष भेट देऊन त्यावर आधारित वृत्तांतलेखनाचा सराव करवून घेणे	१५	१

मूलभूत वाचनः

१. थोरात, हरिश्चंद्र लेख- 'आधुनिकतेला सामोरे जाणारे जुगाड' मुक्तशब्द (मासिक), फेब्रु. २०१९
२. खरे, नंदा लेख- 'उद्योगविश्वावर क्ष किरण' दै. लोकसत्ता, रविवार पुरवणी, २०/१/२०१९
३. मुनघाटे, प्रमोद लेख- तरुण पिढीची होरपळ, दै. महाराष्ट्र टाईम्स, रविवार संवाद, १०/२/२०१९

पूरक वाचनः

४. बांदिवडेकर, चंद्रकांत मराठी कादंबरीचा इतिहास, मेहता पब्लिशिंग हाऊस, पुणे, दु.आ., १९९६
५. बांदिवडेकर, चंद्रकांत मराठी कादंबरी चिंतन आणि समीक्षा, मेहता पब्लिशिंग हाऊस, पुणे, दु.आ., १९९६
६. डहाके, वसंत आबाजी दृश्यकला आणि साहित्य, लोकवाङ्मयगृह, मुंबई, २०१३
७. यादव, आनंद साहित्याची निर्मितीप्रक्रिया, मेहता पब्लिशिंग हाऊस, पुणे, तिसरी आ., २००२
८. पाटील, आनंद सृजनात्मक लेखन, पद्मगंधा प्रकाशन, पुणे, २००५
९. इनामदार-साने, रेखा अस्तित्ववाद आणि मराठी कादंबरी, राजहंस प्रकाशन, पुणे, २००४
१०. शेलार, सुधाकर मराठी साहित्य : काही लेखनबंध, स्वरूप प्रकाशन, औरंगाबाद, २०१३
११. पाटील, म. सु. साहित्याचे सामाजिक व सांस्कृतिक अनुबंध, शब्दालय प्रकाशन, श्रीरामपूर, २००१
१२. थोरात, हरिश्चंद्र कादंबरीविषयी, पद्मगंधा प्रकाशन, पुणे
१३. थोरात, हरिश्चंद्र कादंबरी एक साहित्य प्रकार, शब्द प्रकाशन, मुंबई
१४. टापरे, पंडित कादंबरी : संवाद, शब्द प्रकाशन, मुंबई
१५. खोले, विलास गेल्या अर्धशतकातील कादंबरी, लोकवाङ्मयगृह, मुंबई
१६. मोहिते, गणेश समकालीन मराठी कादंबरी, जनशक्ती वाचक चळवळ, औरंगाबाद

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (चार पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

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Choice Based Credit System

सत्र-३ : Semester No. III

Inter Disciplinary Studies (IDS-1) Marathi Paper No. 1

साहित्यकृती : कर्मवीर भाऊराव पाटील (चरित्र)

ए.व्ही.मॅथ्यू, प्रकाशक-सचिव, रयत शिक्षण संस्था, सातारा

(सदर ग्रंथाचा पहिला खंड पृ.क्र. १ ते २९३ पर्यंत अभ्यासक्रमासाठी ग्राह्य असेल)

उद्दिष्ट्ये:

१. मराठीतील चरित्रात्मक वाङ्मयाचा परिचय करून घेणे.
२. चरित्रात्मक वाङ्मयातील चरित्र नायकाच्या व्यक्तित्वाचे पैलू अभ्यासणे.
३. चरित्रात्मक वाङ्मयातून सामाजिक, शैक्षणिक आणि सांस्कृतिक जीवनाची पार्श्वभूमी समजून घेणे.
४. चरित्रात्मक वाङ्मयाधारे राष्ट्रीय एकात्मता आणि मानवी मूल्यांविषयी जाणीव निर्माण करणे.
५. जाहिरात लेखनाची कौशल्ये विकसित करणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	कर्मवीर भाऊराव पाटील यांच्या व्यक्तिमत्त्वाची जडणघडण व व्यक्तित्वाचे पैलू	१५	१
विभाग २ Module II	कर्मवीर भाऊराव पाटील यांचे कार्य	१५	१
विभाग ३ Module III	कर्मवीर भाऊराव पाटील या चरित्र ग्रंथातील वाङ्मयीन विशेष	१५	१
विभाग ४ Module IV	उपयोजित मराठी – जाहिरात लेखन १. वृत्तपत्रासाठी जाहिरात लेखन २. आकाशवाणीवरील जाहिरात लेखन ३. चित्रवाणीवरील जाहिरात लेखन	१५	१

मूलभूत वाचनः

१. पाटील, अजित	माणसातील देव, प्रकाशक-मॅकमिलन इंडिया लिमिटेड, पुणे
२. पाटील, अजित	कर्मविरायण, प्रकाशक- सचिव, रयत शिक्षण संस्था, सातारा
३. पवार, बा. ग.	कर्मवीर भाऊराव पाटील, मातृभूमी प्रकाशन, पुणे
४. भोसले, द. ता.	कर्मवीर भाऊराव पाटील,
५. जाधव, रमेश	कर्मवीर भाऊराव पाटील,
६. तोडमल, ह. कि.	कर्मवीर पाटील,
७. पाटील, पी. जी.	कर्मवीरोपनिषद् अर्थात कर्मवीर भाऊराव पाटील यांच्या आठवणी,
८. पाटील, विमल	वटवृक्ष,
९. पाटणे, संभाजीराव	त्यागमूर्ती कर्मवीर भाऊराव,

पूरक वाचनः

११. जोशी, अ. म.	चरित्र-आत्मचरित्र, स्नेहवर्धन प्रकाशन, पुणे
१२. भोसले, नारायण	अविस्मरणीय चरित्र - आत्मचरित्रे, अथर्व पब्लिकेशन, जळगांव
१३. नसिराबादकर, ल. रा.	व्यवहारोपयोगी मराठी, फडके प्रकाशन, कोल्हापूर, १९९४
१४. घोरपडे, अक्षय	संवाद आणि लेखन कौशल्ये, प्रशांत पब्लिकेशन, जळगांव, २०१९
१५. तौर, पृथ्वीराज (संपा.)	मराठी भाषिक कौशल्ये विकास, अथर्व पब्लिकेशन, धुळे, २०१८
१६. जोशी, प्रभाकर व वले, वासुदेव	उपयोजित मराठी भाग १, प्रशांत पब्लिकेशन, जळगांव, २०१७
१७. जोशी, प्रभाकर	उपयोजित मराठी, प्रशांत पब्लिकेशन, जळगांव, २०१७
१८. कुंभार, प्रकाश	उपयोजित भाषाविज्ञान आणि प्रसारमाध्यमे, अक्षरदालन, कोल्हापूर, २०१८

प्रश्नपत्रिकेचे स्वरूप**Pattern of Question Paper**

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (चार पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

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सत्र-४ : Semester No. IV

Inter Disciplinary Studies (IDS-2) Marathi Paper No. 2

साहित्यकृती : आटपाटनगरीच्या कथा (कथासंग्रह)

द.ता. भोसले, ग्रंथाली प्रकाशन, मुंबई, २०१८

उद्दिष्ट्ये:

१. मराठी कथा वाङ्मयाचा उगम, विकास व स्वरूप अभ्यासणे.
२. लोककथेचे रचनाविशेष आणि आजची प्रयोगशील कथा यांचा परस्पर अनुबंध अभ्यासणे.
३. वर्तमानातील प्रश्न लोककथांचे तंत्र व आविष्कार पद्धतीद्वारे कसे मांडले जातात याचा अभ्यास करणे.
४. मुलाखतलेखन तंत्र विकसित करणे.

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	आटपाटनगरीच्या कथा – आशयसूत्रे	१५	१
विभाग २ Module II	आटपाटनगरीच्या कथा – मिथकातून उलगडणारे समकालीन वास्तव	१५	१
विभाग ३ Module III	आटपाटनगरीच्या कथा – वाङ्मयीन विशेष	१५	१
विभाग ४ Module IV	उपयोजित मराठी – मुलाखतलेखन तंत्र १. मुलाखतीची पूर्वतयारी २. वृत्तपत्रासाठी मुलाखतलेखन ३. आकाशवाणीवरील मुलाखत ४. दूरचित्रवाणीवरील मुलाखत	१५	१

मूलभूत वाचनः

१. पंचभाई, विनोद लेख-एक विलक्षण कलाकृती:आटपाटनगरीच्या कथा,चपराक (मासिक), सप्टेंबर, २०१५
२. जवंजाळ, सुनिल लेख-जगण्याला श्रीमंत करणाऱ्या विचारांची संपत्ती म्हणजे आटपाटनगरीच्या कथा, दै.एकमत, ७ फेब्रु. २०१६
३. काळे, चांगदेव ग्रंथपरिचय, शब्दरुची (मासिक), सप्टें., २०१५
४. कदम, महेंद्र लेख-आटपाटनगरीच्या कथा, म.सा.प. पुणे, ऑक्टो., २०१८

पूरक वाचनः

५. जोशी, सुधा कथा : संकल्पना आणि समीक्षा, मौज प्रकाशन, मुंबई
६. जाधव, रा. ग. मराठीतील कथारूपे, स्नेहवर्धन पब्लिशिंग हाऊस, पुणे, १९९९
७. ऐनापुरे, जी. के. मराठी कथा : मूल्य आणि ज्हास, ललित पब्लिकेशन, मुंबई, २०१८
८. बेंडखळे, अशोक मराठी कथा : परंपरा आणि नवता (अक्षरयात्रा), राजा प्रकाशन, मुंबई
९. हातकणंगलेकर, म. द. मराठी कथा : रूप आणि परिसर, श्रीविद्या प्रकाशन, पुणे
१०. टापरे, पंडित कथा : रूप आणि आस्वाद, नीहारा प्रकाशन, पुणे
११. नसिराबादकर, ल. रा. व्यवहारोपयोगी मराठी, फडके प्रकाशन, कोल्हापूर, १९९४
१२. घोरपडे, अक्षय संवाद आणि लेखन कौशल्ये, प्रशांत पब्लिकेशन, जळगांव, २०१९
१३. तौर, पृथ्वीराज (संपा.) मराठी भाषिक कौशल्ये विकास, अथर्व पब्लिकेशन, धुळे, २०१८
१४. जोशी, प्रभाकर व वले,वासुदेव उपयोजित मराठी भाग १, प्रशांत पब्लिकेशन, जळगांव, २०१७
१५. जोशी, प्रभाकर उपयोजित मराठी, प्रशांत पब्लिकेशन, जळगांव, २०१७
१६. कुंभार, प्रकाश उपयोजित भाषाविज्ञान आणि प्रसारमाध्यमे, अक्षरदालन, कोल्हापूर, २०१८
१७. बागडे, जयप्रकाश मुलाखत तंत्र व मंत्र, साकेत प्रकाशन, औरंगाबाद

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ५० : Total Marks-50

प्रश्न १	योग्य पर्याय निवडा	१० गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	१० गुण
प्रश्न ४	विभाग ३ वर थोडक्यात उत्तरे द्या (चार पैकी दोन)	१० गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	१० गुण

टीप : प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १, २ व ३ वर असतील.

SHIVAJI UNIVERSITY, KOLHAPUR



Accredited by NAAC 'A' Grade
Revised Syllabus for
Bachelor of Arts
B.A. Part-III - MARATHI
CHOICE BASED CREDIT SYSTEM
(Syllabus will be implemented from June, 2020)

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ (मराठी) : B.A. Part-III (Marathi)

अभ्यासक्रम : Syllabus

Introduced from June 2020 onwards

समकक्षता / Equivalence

		जुना अभ्यासक्रम		नवा अभ्यासक्रम
सत्र क्र. Sem.	अभ्यास- पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव	अभ्यास- पत्रिका क्र. Paper No.	अभ्यासपत्रिकेचे नाव
V	VII	काव्यशास्त्र	VII	साहित्यविचार
V	VIII	भाषाविज्ञान आणि मराठी भाषा	VIII	मराठी भाषा व भाषाविज्ञान
V	IX	मराठी वाङ्मयाचा इतिहास	IX	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)
V	X	मराठी भाषा : उपयोजन आणि सर्जन	X	मराठी भाषा व अर्थार्जनाच्या संधी
V	XI	वाङ्मयप्रवाहांचे अध्ययन (ग्रामीण साहित्य)	XI	वाङ्मयप्रवाहाचे अध्ययन : मध्ययुगीन
VI	XII	काव्यशास्त्र	XII	साहित्यविचार
VI	XIII	भाषाविज्ञान आणि मराठी भाषा	XIII	मराठी भाषा व भाषाविज्ञान
VI	XIV	मराठी वाङ्मयाचा इतिहास	XIV	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते १८००)
VI	XV	मराठी भाषा : उपयोजन आणि सर्जन	XV	मराठी भाषा व अर्थार्जनाच्या संधी
VI	XVI	वाङ्मयप्रवाहांचे अध्ययन (दलित साहित्य)	XVI	वाङ्मयप्रकाराचे अध्ययन : ललित गद्य (व्यक्तिचित्रे)

सूचना : १. सत्र पाच (V) साठी विद्यापीठाने प्रत्येक अभ्यासपत्रिकेनुरूप अंतर्गत मूल्यमापनासाठी १० गुणांसाठी सेमिनार सुचविला आहे. सदर सेमिनारसाठी त्या त्या अभ्यासपत्रिकेच्या अभ्यासक्रमानंतर सेमिनार विषय दिले आहेत. त्यापैकी एका विषयावर प्रत्येक विद्यार्थ्याने सादरीकरण करणे आवश्यक आहे. त्यामध्ये विषयानुसार उद्दिष्टे, प्रास्ताविक, विषयविवेचन, निष्कर्ष आणि संदर्भ या सूत्रानुरूप सादरीकरण गरजेचे आहे. ज्या विषयावर सेमिनार दिला आहे त्याची टिपणे विद्यार्थी व संबंधित विषय शिकविणाऱ्या शिक्षकाच्या स्वाक्षरीसह महाविद्यालयाच्या विभागात जतन करून ठेवणे आवश्यक आहे.

२. सत्र सहा (VI) साठी विद्यापीठाने प्रत्येक अभ्यासपत्रिकेनुरूप अंतर्गत मूल्यमापनासाठी १० गुणांचा गटप्रकल्प (Group Project) सुचविला आहे. सदर गटप्रकल्पासाठी त्या त्या अभ्यासपत्रिकेच्या अभ्यासक्रमानंतर गटप्रकल्प विषय सुचविले आहेत. त्यापैकी एका विषयावर गटप्रकल्प सादर करणे आवश्यक. गटप्रकल्प तयार करताना शीर्षक, उद्दिष्टे, प्रास्ताविक, गहीतके, विषयाचे महत्त्व, विषयविवेचन, निष्कर्ष आणि संदर्भ या क्रमाने गटप्रकल्प तयार करावा. एका गटप्रकल्पासाठी कमाल ५ विद्यार्थी मर्यादा असावी. ज्या विषयावर गटप्रकल्प तयार केला आहे; त्यावर गटप्रकल्पांची व संबंधित विषय शिकविणाऱ्या शिक्षकांची स्वाक्षरी घेऊन सदर प्रकल्प विभागात जतन करून ठेवावेत.

३. सेमिनार व गटप्रकल्पसंदर्भात विषयाची निवड करताना विद्यापीठाने सूचित केलेल्या विषयाबरोबर त्या त्या अभ्यासपत्रिकेनुरूप आणखी काही नावीन्यपूर्ण विषयांची निवड करण्यास स्वातंत्र्य दिले आहे.

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Board of Studies in Marathi
पसंतीवर आधारित श्रेयांक पद्धती
Choice Based Credit System

Structure of Programme

Revised syllabus B. A. Part III (MARATHI)

Introduced from June 2020 onwards

Sr.No.	सत्र क्र. Sem.	अभ्यासपत्रिकेचे नाव	अभ्यास- पत्रिका क्र. Paper No.	Workload	Credits	Total Credits	Theory Marks	Term work/ Seminar
1	V	साहित्यविचार	VII	4 lectures/ week	4	20	40	10
2	V	मराठी भाषा व भाषाविज्ञान	VIII	4 lectures/ week	4		40	10
3	V	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)	IX	4 lectures/ week	4		40	10
4	V	मराठी भाषा व अर्थार्जनाच्या संधी	X	4 lectures/ week	4		40	10
5	V	वाङ्मयप्रवाहाचे अध्ययन : मध्ययुगीन	XI	4 lectures/ week	4		40	10
Sr.No.	सत्र क्र. Sem.	अभ्यासपत्रिकेचे नाव	अभ्यास- पत्रिका क्र. Paper No.	Workload	Credits	Total Credits	Theory Marks	Term work/ Group project
6	VI	साहित्यविचार	XII	4 lectures/ week	4	20	40	10
7	VI	मराठी भाषा व भाषाविज्ञान	XIII	4 lectures/ week	4		40	10
8	VI	मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते १८००)	XIV	4 lectures/ week	4		40	10
9	VI	मराठी भाषा व अर्थार्जनाच्या संधी	XV	4 lectures/ week	4		40	10
10	VI	वाङ्मयप्रकाराचे अध्ययन : ललितगद्य (व्यक्तिचित्रे)	XVI	4 lectures/ week	4		40	10

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Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semester No. V : अभ्यासपत्रिका क्र. VII

Discipline Specific Elective (DSE-E1)

विद्याशाखीय विशेष निवड (DSE-E1)

साहित्यविचार

उद्दिष्टे :

१. पौर्वात्य, पाश्चात्य व आधुनिक भारतीय साहित्यशास्त्राचे स्वरूप समजून घेणे.
२. ललित व ललितेतर साहित्याचे स्वरूप समजून घेणे.
३. साहित्य प्रयोजनांचे आकलन करून घेणे.
४. साहित्याची निर्मितिप्रक्रिया आणि त्याचे स्वरूप आकलन करून घेणे.
५. भाषेतील अलंकार समजून घेणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	<p>साहित्याचे स्वरूप</p> <p>■ साहित्याच्या व्याख्या</p> <ul style="list-style-type: none">● पौर्वात्य - भामह, मम्मट, आनंदवर्धन, विश्वनाथपाश्चात्य - वर्डस्वर्थ, कोर्टहोप, मॅथ्यू अर्नोल्ड, कार्लाइल● आधुनिक - विनोबा भावे, अ. वा. कुलकर्णी, गंगाधर गाडगीळ, वि. ना. ढवळे, <p>■ ललित व ललितेतर साहित्य</p> <p>■ ललित साहित्यातून व्यक्त होणाऱ्या अनुभवांचे विशेष-संवेदनात्मकता, भावनात्मकता, वैचारिकता, सेंद्रियता, सूचकता, विशिष्टता, विश्वात्मकता</p>	१५	१

विभाग २ Module 2	साहित्याचे प्रयोजन <ul style="list-style-type: none"> ● प्रयोजन म्हणजे काय ? ● प्रयोजन आणि परिणाम यातील फरक ■ साहित्याची प्रयोजने : <ul style="list-style-type: none"> १) यश किंवा कीर्ती २) व्यवहारज्ञान ३) आनंद ४) उद्बोधन ५) आत्माविष्कार ६) जिज्ञासापूर्ती ७) जीवनानुभूती ८) इच्छापूर्ती अथवा स्वप्नरंजन ९) पलायनवाद (Escapism) 	१५	१
घटक ३ Module 3	साहित्यनिर्मितीची कारणे <ul style="list-style-type: none"> ● साहित्यनिर्मितीचे स्वरूप ● साहित्यनिर्मितीची कारणे १) प्रतिभा – स्वरूप व वैशिष्ट्ये (प्रतिभाव्यापार, प्रतिभेचे अलौकिकत्व, अपूर्वनिर्मितिक्षम प्रतिभा, प्रतिभा ही वेडाची बहीण) २) बहुश्रुतता ३) अभ्यास ४) भावनात्मकता ५) संवेदनशीलता ६) उत्प्रेक्षा ७) चमत्कृती ८) स्वास्थ्य (शारीरिक, मानसिक) ९) साहित्यिकाचा जीवनविषयक दृष्टिकोण 	१५	१
घटक ४ Module 4	अलंकार <ul style="list-style-type: none"> १) अतिशयोक्ती २) स्वभावोक्ती ३) दृष्टान्त ४) उपमा ५) अनुप्रास ६) रूपक (व्याख्या, स्वरूप आणि उदाहरणे अपेक्षित) 	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	अलंकार (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग चार वर वस्तुनिष्ठ प्रश्न असणार नाहीत.
२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

- विविध साहित्य प्रवाहातील कोणत्याही एका साहित्यकृतीचे किंवा अनुवादित साहित्यकृतीचे परीक्षण करून सादरीकरण करणे.
- कोणत्याही भाषेतील एका चित्रपट वा नाटकाचे परीक्षण करून सादरीकरण करणे.

मूलभूत वाचन :

१. जोग, रा. श्री. अभिनव काव्यप्रकाश, व्हीनस प्रकाशन, पुणे, आवृत्ती ७ वी, १९७५
२. गाडगीळ, स. रा. काव्यशास्त्रप्रदीप, व्हीनस प्रकाशन, पुणे, आवृत्ती ४ थी, जानेवारी, १९९३
३. गोविलकर, लीला भारतीय साहित्यविचार, स्नेहवर्धन, पुणे, २००३
४. वाळंबे, मो. रा. सुगम मराठी व्याकरण, नितीन प्रकाशन, पुणे
५. देशपांडे, अ. ना. (संपा.) विनोबांची साहित्यदृष्टी, परमधाम प्रकाशन, पवनार, वर्धा, १९७५
६. कुलकर्णी, अ. वा. साहित्यविचार, प्रतिमा प्रकाशन, पुणे, आ.दु. १९९७
७. गाडगीळ, गंगाधर खडक आणि पाणी, पॉप्युलर प्रकाशन, मुंबई, १९६०.
८. ढवळे, वि. ना. साहित्याचे तत्त्वज्ञान, कॉन्टिनेन्टल प्रकाशन, पुणे

पूरक वाचन :

१. उपासे, शिवशंकर काव्यशास्त्र परिचय, फडके प्रकाशन, कोल्हापूर, २०१३
२. कंगले, र. पं. प्राचीन काव्यशास्त्र, मौज प्रकाशन, मुंबई, १९७४
३. देशमुख, मा. गो. मराठीचे साहित्यशास्त्र, (ज्ञानेश्वर ते रामदास)
४. डॉ. नगेंद्र भारतीय काव्यशास्त्राचे मूल प्रश्न, सुविचार, नागपूर, पुणे, १९६७
(अनुवादक : शैलजा करंदीकर)

संदर्भ ग्रंथ :

१. जाधव, उदय काव्यशास्त्र : आकलन आणि आस्वाद, लोकपाल पब्लिकेशन, औरंगाबाद
प्रथमावृत्ती, ५ सप्टेंबर, २०१३
२. पुंडे, दत्तात्रय व साहित्य विचार, स्नेहवर्धन प्रकाशन, पुणे, प्रथमावृत्ती, फेब्रुवारी, १९९५
तावरे, स्नेहल (संपा.)
३. पाटील, म. सु. भारतीयांचा साहित्यविचार, चेतश्री प्रकाशन, अमळनेर
४. वासमकर, वि. दा. मराठीतील कलावादी समीक्षा, अक्षरदीप प्रकाशन, कोल्हापूर, आ. प. २०१८
५. करंदीकर, गो. वि. ऑरिस्टॉटलचे काव्यशास्त्र, पॉप्युलर प्रकाशन, मुंबई
६. जाधव, मा. मा. अक्षरगाथा (मराठी साहित्यविचार विशेषांक) मासिक, नांदेड, एप्रिल, २०१४

शिवाजी विद्यापीठ, कोल्हापूर
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Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semester No. 5 : अभ्यासपत्रिका क्र. VIII

Discipline Specific Elective (DSE-E2)

विद्याशास्त्रीय विशेष निवड (DSE-E2)

मराठी भाषा व भाषाविज्ञान

उद्दिष्टे :

१. भाषोत्पत्तीचा अभ्यास करणे.
२. भाषाविज्ञानाचा परिचय करून घेणे.
३. भाषाविज्ञान आणि मराठी भाषा यांचा सहसंबंध जाणून घेणे.
४. स्वनविचार, रूपविचार व वाक्यविचारांचा परिचय करून घेणे.
५. मराठी भाषेविषयी विद्यार्थ्यांची आवड विकसित करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	भाषोत्पत्ती विचार ● भाषेची उत्पत्ती – ईश्वरनिर्मित, राजनिर्मित, समाजनिर्मित ● भाषेच्या उत्पत्तीच्या उपपत्ती/सिद्धांत १. इंगित (Gesture) २. मुखाभिनय (Oral Gesture) ३. अनुकरण (Bow-Bow) ४. रणन (Ding Dong) ५. भावनाभिव्यक्ती (Pooh-Pooh) ६. श्रमपरिहार (Yo-he-Yo) ७. प्रेमगानमूलक (Sing-Song) ८. संपर्क (Contact) ९. क्रीडासक्ती (Play-Way) १०. समन्वय उपपत्ती/सिद्धांत	१५	१
विभाग २ Module II	भाषेचे स्वरूप, व्याख्या आणि वैशिष्ट्ये ● भाषा म्हणजे काय ? ● भाषेच्या व्याख्या : कृ. पां. कुलकर्णी, ना. गो. कालेलकर, श्री. न. गर्जेद्रगडकर ● भाषेचे स्वरूप : समाजव्यवहाराचे साधन, ध्वनिमाध्यमता, प्रतीकात्मकता, संकेतबद्धता, भाषा – एक पद्धती, भाषा मानवी आहे. ● सी. एफ. हॉकेटने सांगितलेली भाषेची सात वैशिष्ट्ये दुहेरीपण, निर्मितक्षमता, कार्यकारण संबंधाचा अभाव, यादृच्छिकता, अदलाबदलीची शक्यता, विशिष्टीकरण, स्थलकालातीतता, सांस्कृतिक संक्रमण या शिवाय – सामाजिक संस्था, अर्जित भाषा, परिवर्तनशीलता, रैखिकता इ. वैशिष्ट्यांचा विचार	१५	१

विभाग ३ Module III	स्वनिम व रूपिम विचार (स्थूल परिचय) अ. स्वनिम विचार १. स्वन २. स्वनिम ३. स्वनांतर (संकल्पना, स्वरूप, प्रकार) ब. रूपिम विचार १. रूप २. रूपिम ३. रूपिकांतर (संकल्पना, स्वरूप, प्रकार)	१५	१
विभाग ४ Module IV	वाक्यविचार ● पदबंध व वाक्याचे स्वरूप ● वाक्याचे प्रकार केवलवाक्य व त्याचे प्रकार, मिश्रवाक्य व त्याचे प्रकार, संयुक्त वाक्य व त्याचे प्रकार, वाक्याचे पृथक्करण	१५	१

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

१. स्वन-स्वनिम, रूप-रूपिम पैकी कोणत्याही एका घटकाच्या अनुषंगाने प्रात्यक्षिकांसह सादरीकरण अपेक्षित.
२. कोणत्याही एका साहित्यकृतीच्या निवडक भागातील वाक्यांचे प्रकार, पृथक्करण, विश्लेषणासह सादरीकरण अपेक्षित.

मूलभूत वाचन :

१. जोशी, प्र. न. सुबोध भाषाशास्त्र, स्नेहवर्धन प्रकाशन, पुणे
२. गवळी, अनिल भाषाविज्ञान आणि मराठी भाषा, हिरण्यकेशी प्रकाशन, कोल्हापूर
३. धोंगडे, रमेश भाषा आणि भाषाविज्ञान, दिलीपराज प्रकाशन, पुणे
४. कानडे, मु. श्री. (संपा.) मराठीचा भाषिक अभ्यास, स्नेहवर्धन प्रकाशन, पुणे
५. गर्जेद्रगडकर, श्री. न. भाषा आणि भाषाशास्त्र, व्हीनस प्रकाशन, पुणे
६. हिरेमठ, राजशेखर मराठी व्याकरण परिचय, मेहता पब्लिशिंग हाऊस, पुणे
७. Hocket C.F. A course in Modern Linguistics, Oxford, New York, 1958

पूरक वाचन :

१. कुलकर्णी, कृ. पां. मराठी भाषा : उद्गम आणि विकास, मेहता पब्लिशिंग हाऊस, पुणे
२. मालशे, मिलिंद आधुनिक भाषाविज्ञान : सिद्धांत आणि उपयोजन, लोकवाङ्मयग्रह, मुंबई
३. कुलकर्णी, सुलक्षणा व भाषाविज्ञान परिचय, फडके प्रकाशन, कोल्हापूर
कुबेर, वसंत
४. दामले, मो. के. शास्त्रीय मराठी व्याकरण, दामोदर सावळाराम आणि मंडळी, पुणे

संदर्भ ग्रंथ :

१. मालशे, पुंडे, सोमण (संपा.) भाषाविज्ञानपरिचय, पद्मगंधा प्रकाशन, पुणे
२. पुंडे, द. दि. सुलभ भाषाविज्ञान, स्नेहवर्धन प्रकाशन, पुणे
३. कदम, महेंद्र मराठीचे वर्णनात्मक भाषाविज्ञान, स्नेहवर्धन प्रकाशन, पुणे
४. काळे, कल्याण/सोमण, अंजली (संपा.) आधुनिक भाषाविज्ञान, प्रतिमा प्रकाशन, पुणे
५. पाटील, व्ही. एन. सुलभ भाषाविज्ञान व मराठी व्याकरण, प्रशांत पब्लिकेशन्स, जळगाव,
आ.दु. २, २०१६
६. भांड, बाबा व मगर, राजेंद्र भाषा आणि साहित्य, माझी भूमिका : सयाजीराव गायकवाड, महाराजा
सयाजीराव गायकवाड संशोधन व प्रशिक्षण संस्था, औरंगाबाद, २०२०
७. लामतुरे, प्रज्ञा ग्रामीण बोलीभाषेचे वैभव, संस्कृती प्रकाशन, पुणे, २०१२
८. जाधव, मा. मा. (संपा.) अक्षरगाथा (मराठी भाषा विशेषांक), मासिक, नांदेड, ऑक्टोबर, २०१३

शिवाजी विद्यापीठ, कोल्हापूर

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Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semester No. 5 : अभ्यासपत्रिका क्र. IX

Discipline Specific Elective (DSE-E3)

विद्याशास्त्रीय विशेष निवड (DSE-E3)

मध्ययुगीन मराठी वाङ्मयाचा इतिहास (प्रारंभ ते इ.स.१५००)

उद्दिष्टे :

१. मध्ययुगीन मराठी वाङ्मयाचा कालिक अभ्यास करणे.
२. मध्ययुगीन मराठी वाङ्मयाचा स्थूल परिचय करून घेणे.
३. मध्ययुगीन मराठी वाङ्मयाचे स्वरूप, वैशिष्ट्ये अभ्यासणे.
४. मध्ययुगीन मराठी वाङ्मयातील महत्त्वाचे ग्रंथकार आणि ग्रंथ यांचा स्थूल परिचय करून घेणे.
५. मध्ययुगीन मराठी वाङ्मयाच्या गद्य, पद्य रचनेचे विशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	<p>■ मराठी वाङ्मयाचा प्रारंभकाल ते इ.स. १२०० पर्यंत</p> <p>अ) विवेकसिंधूपूर्वकालीन रचना कुवलयमाला, मानसोल्लास, राजमतिप्रबोध, अमरनाथ संवाद, गोरक्षगीता इ.</p> <p>ब) मराठीतील आद्य ग्रंथकार मुकुंदराज यांची रचना विवेकसिंधू, पवनविजय, परमामृत</p> <p>क) मराठीतील आद्य कवयित्री महदंबा यांची रचना धवळे (पूर्वार्ध व उत्तरार्ध), मातृकी रुक्मिणीस्वयंवर</p>	१५	१
विभाग २ Module II	<p>■ इ. स. १२०० ते १३०० (स्थूल कालखंड)</p> <p>अ) महानुभावीय गद्य वाङ्मय म्हाडंभट - लीळाचरित्र, श्री. गोविंदप्रभूचरित्र व इतर रचना केसोबास - सूत्रपाठ, दृष्टांतपाठ, स्मृतिस्थल</p>	१५	१

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग २ Module II	ब) महानुभावीय पद्य वाङ्मय सातीग्रंथ (ग्रंथ व ग्रंथकार स्थूल परिचय) नरेंद्र - रुक्मिणी स्वयंवर भास्करभट्ट बोरीकर - शिशुपालवध, उद्धवगीता किंवा एकादशस्कंध दामोदर पंडित - वछाहरण पंडित विश्वनाथ - ज्ञानप्रबोध रवळोव्यास - सह्याद्रिवर्णन नारायणपंडित - श्री ऋद्धिपूरवर्णन	१५	१
विभाग ३ Module III	इ. स. १३०० ते १४०० (स्थूल कालखंड) अ) ज्ञानेश्वरांचे वाङ्मयीन कार्य ज्ञानेश्वरी, अमृतानुभव, चांगदेवपासष्टी, हरिपाठाचे अभंग व इतर रचना ब) नामदेवांची अभंगरचना क) सावता माळी, गोरोबा कुंभार, मुक्ताबाई, सेना महाराज, नरहरी सोनार, चोखामेळा, जनाबाई, कान्होपात्रा यांच्या रचना	१५	१
विभाग ४ Module IV	इ. स. १४०० ते १५०० (स्थूल कालखंड) अ) अन्य संप्रदायातील प्रमुख ग्रंथकार आणि त्यांची ग्रंथरचना सत्यमालनाथ, चोंभा (नाथ संप्रदाय) शांतलिंग आणि मन्मथशिवलिंग (लिंगायत संप्रदाय) गुणकीर्ती व जिनदासनामा (जैन मराठी कवी) नृसिंह सरस्वती आणि दासोपंत (दत्त संप्रदाय) अज्ञानसिद्ध व बहिराजातवेद (नागेश संप्रदाय) शेख महंमद आणि हुसेन अंबरखान (मुस्लीम मराठी कवी) फादर स्टीफन्स, फादर क्रुवा (ख्रिस्ती मराठी कवी)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण - ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

- १) मध्ययुगीन मराठी वाङ्मयातील कोणत्याही एका ग्रंथकाराच्या रचना विशेषावर सादरीकरण.
- २) कोणत्याही एका संत कवीच्या काव्यातील सामाजिकतेवर सादरीकरण.
- ३) कोणत्याही एका संत कवयित्रीच्या कवितेतील आत्मनिष्ठा यावर आधारित सादरीकरण.

मूलभूत वाचन :

१. नसिराबादकर, ल. रा.
२. पठाण, यू. म.
३. देशपांडे, अ. ना.
४. पांगारकर, ल. रा.
५. पसारकर, शे. दे.

प्राचीन मराठी वाङ्मयाचा इतिहास, फडके प्रकाशन, कोल्हापूर
महानुभाव साहित्य संशोधन खंड १, मराठवाडा विद्यापीठ प्रकाशन, औरंगाबाद
प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ४
प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ३, महाराष्ट्र साहित्य परिषद
प्रकाशन, पुणे
वेलू गेला गगनावरी, सुविद्या प्रकाशन, सोलापूर

पूरक वाचन :

१. शेणोलीकर, ह. श्री.
२. पांगारकर, ल. रा.
३. तुळपुळे, शं. गो.
४. मांडवकर, भाऊ
५. इनामदार, हे. वि. (संपा.)
६. उपासे, शिवशंकर
७. उपासे, शिवशंकर (संपा.)
८. पसारकर, शे. दे. (संपा.)
९. केळुसकर, कृष्णराव
१०. फाटक, न. र.
११. परमार्ग सेवक श्री बालकृष्णशास्त्री
महानुभाव

प्राचीन मराठी वाङ्मयाचे स्वरूप, व्हीनस प्रकाशन, पुणे
मराठी वाङ्मयाचा इतिहास खंड १ व २,
मराठी वाङ्मयाचा इतिहास, महाराष्ट्र साहित्य परिषद, पुणे
संत नामदेव दर्शन, सेवा प्रकाशन, अमरावती
संत नामदेव काव्यसंभार आणि संत परिवार
महाराष्ट्र भूषण सहा संत साहित्यिक, फडके प्रकाशन, कोल्हापूर, २०१२
शांतलिंगकृत कर्णहंस, प्रका. शरण संस्कृती अध्ययन केंद्र, सिद्ध संस्थान
मठ, निडसोसी, ता. हुक्करी, जि. बेळगाव
श्री मन्मथशिवलिंगकृत परमरहस्य, शैवभारती शोध प्रतिष्ठान, वाराणसी, २००१
संत तुकाराम, साकेत प्रकाशन, औरंगाबाद
श्री एकनाथ : वाङ्मय आणि कार्य, मौज प्रकाशन गृह, मुंबई
महानुभावपंथ, प. पू. मधुकरशास्त्री कवीश्वर, पंचकमिटी संस्थान,
श्री देवदेवेश्वर, माहूर, आ. आठवी, २०१४

संदर्भ ग्रंथ :

१. देऊळगावकर, चंद्रकांत (संपा.)

१. पाटील, तानाजी
२. सुंठणकर, बा. र.
३. सरदार, गं. बा.
४. जाधव, रा. ग.
५. जाधव, रा. ग.
६. कामत, अशोक व बडवे, सतीश (संपा.)
७. देशमुख, उषा
८. पाटील, सदाशिव
९. घोणसे, शामा
१०. प्रियोळकर, अ. का.
११. ठेरे, रा. चिं.
१२. पठाण, यू. म.
१३. मोरजे, गंगाधर
१४. उपाध्ये, बाबुराव
१५. इर्लेकर, सुहासिनी
१६. अक्कोळे, सुभाषचंद्र
१७. पाटंगणकर, विद्यासागर
१८. होनमाने, धनंजय

मन्मथस्वामी व्यक्ती आणि वाङ्मय, प्रका. शैवभारती शोध प्रतिष्ठान,
जंगमवाडी मठ, वाराणसी
संत साहित्यातील सामाजिकता, विश्वकर्मा पब्लिकेशन, पुणे
महाराष्ट्रीय संतमंडळीचे ऐतिहासिक कार्य, बेळगाव
संत वाङ्मयाची सामाजिक फलश्रुती, म. सा. प. पुणे
आनंदाचा डोह, प्राज्ञ पाठशाळा मंडळ, वाई
वागर्थ, प्रतिमा प्रकाशन, पुणे
संत नामदेवविषयक अभ्यास, आळंदी
मांदियाळी, माया प्रकाशन, नागपूर
तुकाराम आणि कबीर, दर्या प्रकाशन, पुणे
वीरशैवांचे मराठी-हिंदी वाङ्मय : एक अभ्यास, शैवभारती शोध प्रतिष्ठान,
जंगमवाडी मठ, वाराणसी
मुसलमानांची जुनी मराठी कविता
मुसलमान मराठी संतकवी, पद्मगंधा प्रकाशन, पुणे
मुसलमान (सुफी) संतांचे मराठी साहित्य
मराठी ख्रिस्ती वाङ्मय, फादर स्टीफन्स ते १९६०, अहमदनगर
संत गोरा कुंभार : वाङ्मय दर्शन, स्नेहवर्धन प्रकाशन, पुणे
संत कवी आणि कवयित्री : एक अनुबंध, स्नेहवर्धन प्रकाशन, पुणे
प्राचीन मराठी जैन साहित्य, सुविचार प्रकाशन, नागपूर
मराठी संत कवयित्रींचा इतिहास, साहित्य अकादमी, नवी दिल्ली
तंजावरची मराठी कीर्तनपरंपरा, स्नेहवर्धन, पुणे, २०१७

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semester No. V : अभ्यासपत्रिका क्र. X

Discipline Specific Elective (DSE-E4)

विद्याशाखीय विशेष निवड (DSE-E4)

मराठी भाषा व अर्थार्जनाच्या संधी

पाठ्यपुस्तक : मराठी भाषा व अर्थार्जनाच्या संधी (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. सर्जनशील लेखनप्रक्रिया समजून घेणे.
२. वैचारिक लेखनाचे स्वरूप अभ्यासणे.
३. शोधनिबंध व प्रकल्पलेखन कौशल्य समजून घेणे.
४. आंतरजालावरील मराठी लेखनपद्धती अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	सर्जनशील लेखन ■ सर्जनशील लेखन – संकल्पना व स्वरूप <ul style="list-style-type: none">● कथा – संकल्पना, स्वरूप● कथेचे घटक● प्रात्यक्षिकासह कथालेखन	१५	१
विभाग २ Module II	वैचारिक लेखन <ul style="list-style-type: none">● वैचारिक लेखन : संकल्पना व स्वरूप● वैचारिक लेखनाची पद्धत● वैचारिक लेखनाचे प्रकार● प्रात्यक्षिकासह वैचारिक लेखन	१५	१

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग ३ Module III	शोधनिबंध व प्रकल्पलेखन (स्थूल परिचय) <ul style="list-style-type: none"> ● संशोधन : संकल्पना, स्वरूप, महत्त्व ● संशोधनपर लेखनप्रकार परिचय <ol style="list-style-type: none"> १. शोधनिबंध – स्वरूप व पद्धती २. संशोधन प्रकल्प – स्वरूप व पद्धती ३. प्रबंधिका ४. प्रबंध ● संशोधनपर लेखनाची पथ्ये व भाषा 	१५	१
विभाग ४ Module IV	आंतरजालावरील (Internet) मराठी <ul style="list-style-type: none"> ● आंतरजालावरील मराठीविषयक लेखनाचे स्वरूप ● नोंदी लेखन, विश्वकोश, विकिपीडिया इ. ● आंतरजालावरील मराठी संकेतस्थळांचा परिचय <ol style="list-style-type: none"> १. राज्य मराठी विकास संस्था २. महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ ३. भाषा संचालनालय ४. मराठी भाषा विभाग, महाराष्ट्र शासन ५. मराठी साहित्य परिषद, पुणे ६. विश्वकोश मंडळ ७. इतर संकेतस्थळे – साहित्य अकादमी, नॅशनल बुक ट्रस्ट, भारतीय भाषा संस्थान, म्हैसूर इ. ● प्रात्यक्षिकासह आंतरजालावर मराठीविषयक लेखन 	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. प्रश्न क्र. ४ मध्ये ४ पैकी २ प्रश्न उपयोजनावर आधारित असतील.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

१. भाषा, साहित्य, संस्कृती व माध्यमविषयक कोणत्याही एका विषयावर शोधनिबंधाचे सादरीकरण करणे.

मूलभूत वाचन :

१. जोशी, सुधा
२. सारंग, विलास
३. मालशे, मिलिंद (संपा.)
४. पाटील, आनंद
५. काळे, कल्याण, पुंडे, द. दि.
६. वेलणकर, जयंत
७. कऱ्हाडे, सदा
८. चुनेकर, सु. रा. व
पठारे, रंगनाथ (संपा.)
९. वरखेडे, रमेश नारायण व
वरखेडे, मंगला रमेश
१०. रोकडे, सुहास

कथा संकल्पना आणि समीक्षा, मौज प्रकाशन, मुंबई, २००२
सर्जनशोध आणि लिहिता लेखक, मौज प्रकाशन, मुंबई
शोधनिबंधाची लेखनपद्धती (सुधारित आवृत्ती) लोकवाङ्मय गृह, मुंबई
सृजनात्मक लेखन, पद्मगंधा प्रकाशन, पुणे, २००९
व्यावहारिक मराठी, निराली प्रकाशन, पुणे, २००७
प्रबंध कसा लिहावा, साहित्य प्रसारक केंद्र, नागपूर
संशोधन : सिद्धांत आणि पद्धती, लोकवाङ्मय गृह, मुंबई
संशोधन स्वरूप आणि पद्धती, शि. प्र. संस्था, संगमनेर
संशोधनाचे पद्धतिशास्त्र, उद्ग्रामण्ये इन्स्टिट्यूट ऑफ एज्युकेशन,
एक्सलन्स, पुणे
संगणक व माहिती तंत्रज्ञान, नाथे प्रकाशन, पुणे

पूरक वाचन :

१. नसिराबादकर, ल. रा.
२. रेगे, मे. पुं. (संपा.)
३. गवस, राजन; शिंदे, अरुण व
पाटील, गोमटेश्वर
४. गोविलकर, लीला
पाटणकर, जयश्री
५. शेख, यास्मिन
६. शिकारपूरकर, दीपक
७. शेख, यास्मिन

व्यावहारिक मराठी, फडके प्रकाशन, कोल्हापूर
नवभारत (मासिक), व्यावहारिक मराठी विशेषांक, प्राज्ञ पाठशाळा मंडळ,
वाई, ऑगस्ट-सप्टेंबर, १९८१
भाषिक सर्जन आणि उपयोजन, दर्या प्रकाशन, पुणे, २०१२
व्यावहारिक मराठी, स्नेहवर्धन पब्लिशिंग हाऊस, पुणे, २००७
मराठी लेखन मार्गदर्शिका, राज्य मराठी विकास संस्था व शुभदा सारस्वत
प्रकाशन, पुणे, १९९९/सुधारित तिसरी आवृत्ती, राज्य मराठी विकास
संस्था, मुंबई, डिसें. २०१७
दिव्यांगमित्र संगणक, उत्कर्ष प्रकाशन, पुणे
मराठी हस्तलेखन कोश, दुसरी आवृत्ती, हर्मिस प्रकाशन, पुणे, २०१५

संदर्भ ग्रंथ :

१. तौर, पृथ्वीराज
२. जोशी, प्रभाकर व
वले, वासुदेव
३. सारंग, विलास
४. पाटील, आनंद
५. लोखंडे, शशिकांत
६. गवळी, अनिल
७. गवळी, अनिल व मोरे, नंदकुमार
८. कांबळे, विनोद
९. वरखेडे, मंगला

मराठी भाषिक कौशल्ये विकास, अथर्व पब्लिकेशन्स, धुळे, २०१८
उपयोजित मराठी भाग १, प्रशांत पब्लिकेशन्स, जळगाव, २०१७
सर्जनशोध आणि लिहिता लेखक, मौज प्रकाशन, मुंबई
सृजनात्मक लेखन, पद्मगंधा प्रकाशन, पुणे
नवी जाणीव, लोकवाङ्मय गृह, मुंबई, २०१२
मराठी भाषा : आज आणि उद्या, दर्या प्रकाशन, पुणे, २०१८
भाषासंवाद, सायन पब्लिकेशन, पुणे, २०१३
सर्जननौदी, वाचनकट्टा प्रकाशन, प्रा. लि., कोल्हापूर, २०१९
प्रकल्प अभ्यास, नाशिक

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-५ : Semester No. V : अभ्यासपत्रिका क्र. XI

Discipline Specific Elective (DSE-E5)

विद्याशाखीय विशेष निवड (DSE-E5)

वाङ्मय प्रवाहाचे अध्ययन : मध्ययुगीन

पाठ्यपुस्तक : दृष्टांतपाठ-निवडक दृष्टांत (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. मध्ययुगीन महाराष्ट्र व महानुभाव पंथ यांचा परिचय करून घेणे.
२. महानुभाव वाङ्मयाच्या प्रेरणा व स्वरूप समजून घेणे.
३. महानुभावीय ग्रंथकार केसोबास यांचा परिचय करून घेणे.
४. दृष्टांतपाठातील आशयस्वरूप व अभिव्यक्ती विशेष अभ्यासणे.
५. दृष्टांतपाठातील भाषिक वैभवाचा परिचय करून घेणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	● मध्ययुगीन महाराष्ट्र आणि महानुभावीय गद्याच्या प्रेरणा व स्वरूप ● महानुभाव गद्य ग्रंथकार केसोबास यांचा परिचय ● दृष्टांतपाठाचे स्वरूप	१५	१
विभाग २ Module II	■ दृष्टांतपाठातील आशयसूत्रे ● सामाजिकता ● सांस्कृतिकता ● प्रादेशिकता ● पंथीय निष्ठा ● तत्त्वज्ञान व मूल्यविचार	१५	१
विभाग ३ Module III	■ दृष्टांतपाठातील अभिव्यक्ती विशेष ● निवेदन/कथनशैली ● व्यक्तिचित्रणे ● घटना, प्रसंगवर्णने ● प्रतिमा व प्रतीके ● रचनाविशेष	१५	१
विभाग ४ Module IV	■ दृष्टांतपाठातील भाषावैभव ● शब्दसौष्ठव ● अल्पाक्षरत्व ● सुलभ रचनाविशेष ● म्हणी, वाक्प्रचार, उखाणे ● अलंकार वैभव ● व्याकरणिक विशेष	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण - ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. विभाग एकवर वस्तुनिष्ठ प्रश्न असणार नाहीत.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

सेमिनार विषय :

मध्ययुगीन मराठी वाङ्मयातील कोणत्याही एका साहित्यकृतिआधारे सामाजिक, सांस्कृतिक, मूल्यविचार, भाषाविशेष इत्यादींपैकी कोणत्याही एका विषयानुषंगाने सादरीकरण करणे.

मूलभूत वाचन :

- | | |
|-----------------------------|---|
| १. तुळपुळे, शं. गो. (संपा.) | दृष्टांतपाठ, केशिराज संकलित, व्हीनस प्रकाशन, पुणे |
| २. कोलते, वि. भि. | महानुभाव तत्त्वज्ञान, अरुण प्रकाशन, मलकापूर |
| ३. कोलते, वि. भि. | महानुभाव आचारधर्म, अरुण प्रकाशन, मलकापूर |
| ४. राजनकर, सुहास | दृष्टांतपाठ : अन्वय आणि चिकित्सा, ऋचा प्रकाशन, नागपूर |
| ५. कुंदप, कोमल कन्हैया | चक्रधर निरुपन दृष्टांतपाठ विवेचन, सातारा |

पूरक वाचन :

- | | |
|-------------------------|---|
| १. पठाण, यू. म. | महानुभाव साहित्य संशोधन खंड १, मराठवाडा विद्यापीठ प्रकाशन, औरंगाबाद |
| २. पंजाबी, माधव (संपा.) | श्री. च. पाणी व्यासकृत दृष्टांत अन्वय व्याख्यान |
| ३. आवलगावकर, रमेश | महानुभावांची अन्वयस्थळे, चंद्रकांत प्रकाशन, पुणे |
| ४. ढेरे, रा. चिं. | प्राचीन मराठीच्या नवधारा, मोघे प्रकाशन, कोल्हापूर |

संदर्भ ग्रंथ :

- | | |
|---------------------|---|
| १. पानसे, मु. ग. | यादवकालीन महाराष्ट्र, मुंबई मराठी ग्रंथ संग्रहालय, मुंबई |
| २. बोरगांवकर, वसंत | प्राचीन मराठी चरित्रलेखन, कॉन्टिनेन्टल प्रकाशन, पुणे |
| ३. तुळपुळे, शं. गो. | यादवकालीन मराठी भाषा, व्हीनस प्रकाशन, पुणे |
| ४. देशमुख, उषा | मराठी साहित्याचे आदिबंध, लोकवाङ्मयगृह, मुंबई |
| ५. ढेरे, रा. चिं. | महाराष्ट्राचा देव्हारा, विश्वकर्मा साहित्यालय, पुणे |
| ६. पाठक, अरुणचंद्र | स्थानपोथी : एक पुरातत्वीय अभ्यास, म.रा.साहित्य संस्कृती मंडळ, मुंबई |

शिवाजी विद्यापीठ, कोल्हापूर
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मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semester No. 6 : अभ्यासपत्रिका क्र. XII

Discipline Specific Elective (DSE-E126)

विद्याशाखीय विशेष निवड (DSE-E126)

साहित्यविचार

उद्दिष्टे :

१. शब्दशक्तीचे आकलन करून घेणे.
२. साहित्यातील रसाचे स्वरूप व रसप्रक्रिया समजून घेणे.
३. निर्मितीच्या आनंदाची मीमांसा करणे.
४. व्यवहार भाषा, शास्त्रभाषा आणि साहित्यभाषा यांतील भेद समजून घेणे.
५. साहित्यभाषेचे आकलन करून घेणे.
६. भाषेतील छंद व वृत्ते यांचा अभ्यास करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	शब्दशक्ती ■ शब्दशक्ती म्हणजे काय ? १) अभिधा-व्याख्या, स्वरूप व प्रकार (योग, रूढी, योगरूढी) २) लक्षणा - व्याख्या, स्वरूप ● लक्षणेस आवश्यक गोष्टी अ) मुख्यार्थबाध ब) मुख्यार्थ-लक्ष्यार्थ संबंध क) रूढी व प्रयोजन ● लक्षणेचे महत्त्व ३) व्यंजना - व्याख्या, स्वरूप ● व्यंजनेचे मुख्य दोन प्रकार अ) शाब्दी व्यंजना ब) आर्थी व्यंजना ● व्यंजनेचे साहित्यातील महत्त्व	१५	१

विभाग २ Module 2	अ) रसविचार <ul style="list-style-type: none"> ● रस म्हणजे काय ? ● स्थायिभाव व रस ● भरताचे रससूत्र ब) काव्यानंदमीमांसा <ul style="list-style-type: none"> ● काव्यानंदमीमांसा म्हणजे काय ? ● कवीचा आनंद १) क्रीडानंद २) निर्मितीचा आनंद ३) आत्माविष्कारानंद ● रसिकाचा आनंद १) ज्ञानानंद २) जिज्ञासापूर्ती ३) पुनःप्रत्ययाचा आनंद ● करुणरसानंद १) केवलानंदवाद २) विरेचन (कॅथार्सिस) 	१५	१
घटक ३ Module 3	साहित्याची भाषा १) व्यवहारभाषा, शास्त्रभाषा व साहित्यभाषा : साम्यभेद २) साहित्याचे माध्यम भाषा ३) साहित्य भाषेचे सौंदर्य ४) साहित्य भाषेची विविधता	१५	१
घटक ४ Module IV	छंद व वृत्ते अ) छंद - १) ओवी २) अभंग ३) मुक्तछंद ब) वृत्ते - १) भुजंगप्रयात २) वसंततिलका ३) दिंडी (व्याख्या, स्वरूप व उदाहरणे अपेक्षित)	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण - ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	छंद व वृत्ते (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग चार वर वस्तुनिष्ठ प्रश्न असणार नाहीत.
२. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय : साहित्यनिर्मितिप्रक्रिया संदर्भात कोणत्याही एका साहित्यिकाची मुलाखत घेणे.

मूलभूत वाचन :

१. जोग, रा. श्री. अभिनव काव्यप्रकाश, व्हीनस प्रकाशन, पुणे, आवृत्ती ७ वी, जानेवारी, १९७५
२. गाडगीळ, स. रा. काव्यशास्त्रप्रदीप, व्हीनस प्रकाशन, पुणे, आवृत्ती ४ थी, जानेवारी, १९९३
३. वाटवे, के. ना. रसविमर्श, नवीन किताबखाना, पुणे, १९४२
४. वाळंबे, मो. रा. सुगम मराठी व्याकरण लेखन, नितीन प्रकाशन, पुणे
५. नेमाडे, भालचंद्र साहित्याची भाषा, साकेत प्रकाशन, औरंगाबाद, आ. दु. १९९८

पूरक वाचन :

१. जोशी, पं. महादेवशास्त्री सुलभ काव्याशास्त्र, एस. जगन्नाथ आणि कं., पुणे
२. उपासे, शिवशंकर काव्यशास्त्र परिचय, फडके प्रकाशन, कोल्हापूर, २०१३
३. जाधव, उदय काव्यशास्त्र : आकलन आणि आस्वाद, लोकपाल पब्लिकेशन, औरंगाबाद, प्रथमावृत्ती, ५ सप्टेंबर २०१३
४. शिरवाडकर, के. रं. साहित्यवेध, मेहता पब्लिशिंग हाऊस, पुणे, प्रथमावृत्ती, जानेवारी, १९९८

संदर्भ ग्रंथ :

१. कुरुंदकर, नरहर रससूत्र, इंद्रायणी साहित्य, पुणे.
२. सोनार, ब. लु. भारतीय साहित्य विचार, प्रज्ञा, अमळनेर, १९८८
३. मोरे, मोरेश्वर सखाराम मराठी व्याकरण, चित्रशाळा, पुणे, १९७०
४. वासमकर, वि. दा. मराठीतील कलावादी समीक्षा, अक्षरदीप प्रकाशन, कोल्हापूर, आ. प. २०१८
५. तुकदेव, रोहिणी ओवी छंद : रूप आणि आविष्कार, प्रतिमा प्रकाशन, पुणे
६. हिरेमठ, राजशेखर मराठी व्याकरण परिचय, मेहता पब्लिशिंग हाऊस, पुणे, १९८८
७. जाधव, मा. मा. अक्षरगाथा (मराठी साहित्यविचार विशेषांक), मासिक, नांदे, एप्रिल, २०१४

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Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semester No. 6 : अभ्यासपत्रिका क्र. XIII

Discipline Specific Elective (DSE-E127)

विद्याशाखीय विशेष निवड (DSE-E127)

मराठी भाषा व भाषाविज्ञान

उद्दिष्टे :

१. मराठी भाषेची वर्णव्यवस्था समजून घेणे.
२. ध्वनी व अर्थपरिवर्तनाची कारणे व प्रकार यांची माहिती करून घेणे.
३. प्रमाणभाषेचे स्वरूप व विशेष अभ्यासणे.
४. बोलींचे स्वरूप व विशेष समजून घेणे.
५. मराठी भाषेबद्दलची विद्यार्थ्यांची आवड विकसित करणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	<p>मराठीची वर्णमाला</p> <ul style="list-style-type: none">● ध्वनी व वर्ण, मराठीची वर्णमाला, पारंपरिक स्वर व त्यांचे वर्गीकरण● स्वरांचे ध्वनिशास्त्रदृष्ट्या व उच्चारण स्थानानुसार विश्लेषण● स्वरांचे प्रकार ह्रस्व, दीर्घ, सिद्ध, साधित, सजातीय, विजातीय● मराठीची स्वर संख्या (पारंपरिक व नवीन)● मराठीतील व्यंजन विचार● व्यंजनांचे प्रकार १. स्पर्श व्यंजने २. कठोर व मृदू व्यंजने ३. अल्पप्राण व महाप्राण ४. अनुनासिके ५. तालव्य व्यंजने ६. अंतःस्थ व्यंजने ७. उष्म व्यंजने ८. संयुक्त व्यंजने ९. मृध्न्य● मराठीची व्यंजन संख्या (पारंपरिक व नवीन)● मराठीची वर्ण संख्या निश्चितीकरण	१५	१

<p>विभाग २ Module II</p>	<p>मराठीचे ध्वनिपरिवर्तन</p> <ul style="list-style-type: none"> ● भाषेची उच्चारप्रक्रिया ● ध्वनिपरिवर्तन म्हणजे काय? ● व्याख्या आणि विशेष निरपवाद, नियमित, अज्ञेय, सार्वत्रिक ध्वनिपरिवर्तन ● कारणे जित - जेते संबंध, भिन्न भाषिक संबंध, आळस, अनुकरणाची अपूर्णता, वागेंद्रियातील दोष, श्रवणेंद्रियातील दोष, उच्चारशीघ्रता, अज्ञान, आघात, उच्चारसौकर्य, आहार, भौगोलिकता, वर्गसिद्धान्त, लोकभ्रम, सादृश्यता ● प्रकार अंत्यस्वनलोप, एकस्वनीकरण, आद्यस्वनागम, मध्यस्वनागम, अंत्यस्वनागम, सान्निध्य परिणाम, समानस्वनलोप, विसदृशीकरण, घोषीकरण, अघोषीकरण, मात्राभेद, सदृशता, अतिशुद्धी, दुष्प्रयोग, स्वनविपर्यय ● ध्वनिपरिवर्तनाचा मराठी भाषेवरील परिणाम 	<p>१५</p>	<p>१</p>
<p>विभाग ३ Module III</p>	<p>मराठीचे अर्थपरिवर्तन</p> <ul style="list-style-type: none"> ● अर्थपरिवर्तन म्हणजे काय ? ● व्याख्या आणि स्वरूप अर्थ म्हणजे निर्देश, प्रतिमा, संकल्पना व विचार ● अर्थपरिवर्तनाची कारणे साम्यतत्त्व, रूपक - लक्षणाजन्य शब्द, बदलते समाजजीवन, अशुभतापरिहार, ग्राम्यतापरिहार, अतिशयोक्ती, शब्दसिद्धी, अतिपरिचयातून सभ्यता, अत्यादरदर्शन, सांस्कृतिक आदान ● अर्थपरिवर्तनाचे प्रकार - अर्थविस्तार, अर्थसंकोच, अर्थप्रशस्ती, अर्थच्युती, अर्थापकर्ष, अर्थान्तर, अर्थभ्रंश, अर्थदेश, अर्थभेद, अर्थसार ● अर्थपरिवर्तनाचा मराठी भाषेवरील परिणाम 	<p>१५</p>	<p>१</p>
<p>विभाग ४ Module IV</p>	<p>प्रमाण मराठी भाषा आणि तिच्या बोली</p> <ul style="list-style-type: none"> ● प्रमाण मराठी : संकल्पना, स्वरूप, विशेष ● बोली : संकल्पना, स्वरूप, विशेष ● मराठीच्या बोली : अहिराणी, वऱ्हाडी, चंदगडी, मालवणी या निवडक बोलींचे स्वरूप व विशेष 	<p>१५</p>	<p>१</p>

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. विभाग एकवर वस्तुनिष्ठ प्रश्न असणार नाही.

२. अंतर्गत मूल्यमापनाकरिता सेमिनारसाठी दहा गुण आहेत.

गटप्रकल्प विषय :

१. आपल्या परिसरातील कौटुंबिक, सांस्कृतिक, कृषिविषयक, औद्योगिक क्षेत्रात जी बोलीभाषा बोलली जाते त्या बोलीभाषेतील शब्द, वाक्य, वाक्प्रचार, म्हणी, उखाणे यांचे संकलन आणि विश्लेषणासह गटप्रकल्प अपेक्षित.
२. आपल्या परिसरातील लोककथा, लोकगीते यांचे संकलन करून त्यातील भाषिक विशेषांच्या विश्लेषणावर आधारित गटप्रकल्प अपेक्षित.

मूलभूत वाचन :

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| १. कुलकर्णी, कृ. पां. | मराठी भाषा : उद्गम आणि विकास, मेहता पब्लिशिंग हाऊस, पुणे |
| २. कानडे, मु. श्री. (संपा.) | मराठीचा भाषिक अभ्यास, स्नेहवर्धन प्रकाशन, पुणे |
| ३. गजेंद्रगडकर श्री. न. | भाषा आणि भाषाशास्त्र, व्हीनस प्रकाशन, पुणे |
| ४. कुलकर्णी कृ. पां. | शब्द : उद्गम आणि विकास |
| ५. जोगळेकर गं. ना. | अभिनव भाषाविज्ञान, सुविचार प्रकाशन, पुणे |
| ६. जोशी, प्र. न. | सुबोध भाषाशास्त्र, स्नेहवर्धन प्रकाशन, पुणे |
| ७. दामले, मो. के. | शास्त्रीय मराठी व्याकरण, दामोदर सावळाराम आणि मंडळी, पुणे |
| ८. कालेलकर, ना. गो. | ध्वनिविचार, मौज प्रकाशन, मुंबई |
| ९. पोतदार, अनुराधा | मराठीचा अर्थविचार, पुणे विद्यापीठ प्रकाशन, पुणे |
| १०. कालेलकर, ना. गो. | भाषा आणि संस्कृती, मौज प्रकाशनगृह, मुंबई |
| ११. देवी, गणेश व जाखडे, अरुण (संपा.) | भारतीय भाषेचे लोकसर्वेक्षण, पद्मगंधा प्रकाशन, पुणे |

पूरक वाचन :

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| १. हिरेमठ, राजशेखर | मराठी व्याकरण परिचय, मेहता पब्लिशिंग हाऊस, पुणे |
| २. गवळी, अनिल | भाषाविज्ञान आणि मराठी भाषा, हिरण्यकेशी प्रकाशन, कोल्हापूर |
| ३. कुलकर्णी, सुलक्षणा व कुबेर, वसंत | भाषाविज्ञान परिचय, फडके प्रकाशन, कोल्हापूर |

संदर्भ ग्रंथ :

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| १. पुंडे, द. दि. | सुलभ भाषाविज्ञान, स्नेहवर्धन प्रकाशन, पुणे |
| २. कदम, महेंद्र | मराठीचे वर्णनात्मक भाषाविज्ञान, स्नेहवर्धन प्रकाशन, पुणे |
| ३. कालेलकर, ना. गो. | भाषा, इतिहास आणि भूगोल, मौज मुंबई |
| ४. शेख, यास्मिन | मराठी लेखन मार्गदर्शिका, राज्य मराठी विकास संस्था, मुंबई |
| ५. हिरेमठ, राजशेखर | मराठी व्याकरण परिचय, मेहता पब्लिशिंग हाऊस, पुणे |
| ६. लामतुरे, प्रज्ञा | ग्रामीण बोलीभाषेचे वैभव, संस्कृती प्रकाशन, पुणे |
| ७. जंबाले, विठ्ठल | ग्रामीण कादंबरी : मराठवाडी बोलीचे स्वरूप, चिन्मय प्रकाशन, औरंगाबाद |
| ८. पाटील, व्ही. एन. | सुलभ भाषाविज्ञान, प्रशांत पब्लिकेशन्स, जळगाव, २०१६ |
| ९. भांड, बाबा व मगर, राजेंद्र | भाषा आणि साहित्य : माझी भूमिका : सयाजीराव गायकवाड, महाराजा सयाजीराव गायकवाड संशोधन व प्रशिक्षण संस्था, औरंगाबाद |
| १०. केळकर, तन्मय (अनु.) | पंजाबच्या भाषा आणि लिपीची समस्या : शहीद भगतसिंग, प्रका. भाषाविकास संशोधन संस्था, कोल्हापूर |

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semester No. 6 : अभ्यासपत्रिका क्र. XIV

Discipline Specific Elective (DSE-E128)

विद्याशास्त्रीय विशेष निवड (DSE-E128)

मध्ययुगीन मराठी वाङ्मयाचा इतिहास (इ.स.१५०० ते इ.स.१८००)

उद्दिष्टे :

१. मध्ययुगीन मराठी वाङ्मयाचा कालिक अभ्यास करणे.
२. मध्ययुगीन मराठी वाङ्मयाचा स्थूल परिचय करून घेणे.
३. पंडित कवी व त्यांची रचना यांचा परिचय करून घेणे.
४. बखर वाङ्मय आणि शाहिरी वाङ्मय यांचे स्वरूप, विशेष अभ्यासणे.
५. मध्ययुगीन मराठी गद्य, पद्य रचनेचे विशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	इ. स. १५०० ते इ.स. १६०० एकनाथांची साहित्य संपदा चतुःश्लोकी भागवत, एकनाथी भागवत, भावार्थ रामायण, गवळणी, भारुडे इत्यादी रचना	१५	१
विभाग २ Module II	इ. स. १६०० ते इ. स. १७०० (स्थूल कालखंड) अ) तुकारामांची अभंगरचना ब) रामदासांची ग्रंथरचना करुणाष्टके, रामायणे, मनाचे श्लोक, दासबोध, स्फुट प्रकरणे	१५	१
विभाग ३ Module III	इ. स. १६०० ते इ. स. १८०० (स्थूल कालखंड) निवडक पंडित कवींच्या काव्याचा अभ्यास १) मुक्तेश्वर २) वामन पंडित ३) रघुनाथ पंडित ४) श्रीधर ५) मोरोपंत	१५	१
विभाग ४ Module IV	इ. स. १५०० ते इ.स. १८०० (स्थूल कालखंड) अ) बखर वाङ्मय शिवपूर्वकालीन बखरी, शिवकालीन बखरी, पेशवेकालीन बखरी-स्वरूप, विशेष ब) शाहिरी वाङ्मय (लावणी व पोवाडा) १) अनंत फंदी २) परशुराम ३) राम जोशी ४) प्रभाकर ५) होनाजी बाळा	१५	१

Pattern of Question Paper

एकूण गुण - ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

* आपल्या परिसरातील कोणत्याही ग्रंथालयातील किंवा ग्रंथालयाबाहेरील मध्ययुगीन मराठी ग्रंथकार आणि ग्रंथ यांची सूची तयार करावी.

* मध्ययुगीन मराठी वाङ्मयातील निवडक शब्दांचा शब्दसंग्रह करणे आणि त्यांचे वर्गीकरण व विश्लेषण करणे.

मूलभूत वाचन :

१. नसिराबादकर, ल. रा.
२. देशपांडे, अ. ना.
३. पांगारकर, ल. रा.
४. मंचरकर, र. बा.
५. गवळी, अनिल
६. सपकाळे, प्रकाश
७. वाटवे, के. ना. (संपा.)
८. फाटक, न. र.
९. सरदेशमुख, त्र्यं. वि.
१०. हेरवाडकर, र. वि.
११. अदवंत, म. ना.
१२. सहस्त्रबुद्धे, म. ना.
१३. खरात, महेश (संपा.)

प्राचीन मराठी वाङ्मयाचा इतिहास, फडके प्रकाशन, कोल्हापूर
प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ४, व्हीनस प्रकाशन, पुणे
प्राचीन मराठी वाङ्मयाचा इतिहास खंड १ ते ३, महाराष्ट्र साहित्य परिषद, पुणे
धर्म संप्रदाय आणि मध्ययुगीन मराठी वाङ्मय, प्रतिमा प्रकाशन, पुणे
सर्वात्मभावी तुकाराम, सायन पब्लिकेशन प्रा. लि. पुणे
संत तुकाराम, प्रशांत पब्लिकेशन्स, जळगाव
प्राचीन मराठी पंडिती काव्य.
श्री एकनाथ वाङ्मय दर्शन आणि कार्य, मौज प्रकाशन गृह, मुंबई
रामदास : प्रतिमा आणि बोध, अस्मिता प्रकाशन, पुणे
मराठी बखर, व्हीनस प्रकाशन, पुणे
पैजण, साहित्य प्रसार केंद्र, नागपूर
मराठी शाहिरी वाङ्मय, ठोकळ प्रकाशन, पुणे
लोकसाहित्य : जीवन आणि संस्कृती, (प्रा.विश्वनाथ शिंदे गौरवग्रंथ), सायन पब्लिकेशन, पुणे

पूरक वाचन :

१. तुळपुळे, शं. गो. (संपा.)
२. तुळपुळे, शं. गो. (संपा.)
३. उपासे, शिवशंकर
४. पाटील, तानाजी
५. हेरवाडकर, र. वि.

मध्ययुगीन मराठी वाङ्मयाचा इतिहास, म. सा. प., पुणे
मराठी वाङ्मयाचा इतिहास, महाराष्ट्र साहित्य परिषद, पुणे
मराठी काव्यातील शिवदैवत दर्शन, आख्यानकाव्य व स्फुटकाव्य : १३ ते १८ वे शतक, शैवभारती शोध प्रतिष्ठान, जंगमवाडी मठ, वाराणसी
संत साहित्यातील सामाजिकता, विश्वकर्मा प्रकाशन, पुणे
मराठी बखर

संदर्भ ग्रंथ :

१. बडवे, सतीश
२. फाटक, न. र.
३. माटे, श्री. म.
४. होनमाने, धनंजय
५. होनमाने, धनंजय
६. ग्रामोपाध्ये, गं. ब.
७. शिंदे, विश्वनाथ
७. केळकर, य. न.
९. मोरजे, गंगाधर
१०. वर्दे, श्री. म.

मध्ययुगीन साहित्याविषयी, मीरा, औरंगाबाद
श्री. रामदास, वाङ्मय आणि कार्य
संत, पंत आणि तंत, ठोकळ प्रकाशन, पुणे
तंजावरची मराठी कीर्तनपरंपरा, स्नेहवर्धन, पुणे
पंत प्रतिनिधींची कीर्तनाख्याने, दर्या प्रकाशन, पुणे
मराठी बखर गद्य, व्हीनस बुक स्टॉल, पुणे
शाहिरी वाङ्मयाच्या धारा, प्रतिमा प्रकाशन, पुणे
मराठी शाहीर आणि शाहिरी वाङ्मय, पुणे विद्यापीठ, पुणे
मन्हाटी लावणी वाङ्मय, मोघे प्रकाशन, कोल्हापूर
मराठी कवितेचा उषःकाल किंवा मराठी शाहीर, मुंबई मराठी साहित्य संघ, मुंबई

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semester No. 6 : अभ्यासपत्रिका क्र. XV

Discipline Specific Elective (DSE-E129)

विद्याशाखीय विशेष निवड (DSE-E129)

मराठी भाषा व अर्थार्जनाच्या संधी

पाठ्यपुस्तक : मराठी भाषा व अर्थार्जनाच्या संधी (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. प्रसारमाध्यमांतील अर्थार्जनाच्या संधी आणि भाषिक कौशल्ये यांचा परिचय करून घेणे.
२. स्पर्धा परीक्षांमध्ये मराठी भाषा विषयाचे महत्त्व समजून घेणे.
३. उद्योग व सेवा क्षेत्रात मराठी भाषेद्वारे अर्थार्जनप्राप्ती संदर्भात ज्ञान संपादन करणे.
४. मुद्रित शोधनाची पद्धत अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	<p>प्रसारमाध्यमांतील अर्थार्जनाच्या संधी व भाषिक कौशल्ये</p> <p>■ मुद्रित माध्यमे (Print Media)</p> <p>१. संपादन २. स्तंभलेखन ३. जाहिरात लेखन</p> <p>४. शब्दांकन (नावीण्यपूर्ण उपक्रम, व्यक्तींचे अनुभव व मानपत्र)</p> <p>■ आकाशवाणी</p> <p>१. निवेदन २. संहिता लेखन (कृषी, महिला व शैक्षणिक विषयक)</p> <p>३. बातमी लेखन</p> <p>■ चित्रवाणी</p> <p>१. निवेदन २. संहिता लेखन (साहित्य, युवा व मनोरंजन विषयक)</p> <p>३. बातमी लेखन</p>	१५	१

विभाग २ Module II	<p>उद्योग व सेवाक्षेत्रातील अर्थार्जनाच्या संधी व भाषिक कौशल्ये</p> <p>■ उद्योग व सेवाक्षेत्र आणि मराठी भाषा</p> <p>■ उद्योग व सेवाक्षेत्रातील अर्थार्जन संधी –</p> <p>१. विपणन (Marketing) साठी संवाद कौशल्ये</p> <p>२. ग्राहक सेवा केंद्र (Call Centers)</p> <p>३. अनुवाद</p> <p>४. मराठी टंकलेखन, युनिकोड व पीपीटी (Power Point Presentation) परिचय</p>	१५	१
विभाग ३ Module III	<p>मुद्रितशोधन</p> <p>१. मुद्रितशोधन : संकल्पना, स्वरूप, प्रकार व महत्त्व</p> <p>२. महाराष्ट्र शासनाचे प्रमाणलेखनविषयक १८ नियम, अपवाद, उदाहरणे, विरामचिन्हे</p> <p>३. मुद्रित शोधनाची पद्धत : सांकेतिक खुणा, त्याचे स्पष्टीकरण, पहिले वाचन व पुढील मुद्रितशोधन, संगणकीय मुद्रितशोधन</p> <p>४. मुद्रितशोधनाचे प्रात्यक्षिक कार्य :वर्तमानपत्र, नियतकालिक, ग्रंथ, छापील मजकूर, लेख इ.</p>	१५	१
विभाग ४ Module IV	<p>स्पर्धा परीक्षांसाठी मराठी</p> <p>१. स्पर्धा परीक्षांचे स्वरूप : सरळसेवा, कम्बाईन, राज्यसेवा, संघ लोकसेवा आयोग</p> <p>२. स्पर्धा परीक्षांमधील मराठीचे स्वरूप : अभ्यासक्रम परिचय</p> <p>३. स्पर्धा परीक्षेसाठी कौशल्ये : वाचन, नोट्स (टिपणे), लेखन, हस्ताक्षर, वेळेचे व्यवस्थापन, गटचर्चा,संदर्भ साहित्य</p> <p>४. मुलाखतीची पूर्वतयारी व तंत्रे (मुलाखत कशी द्यावी)</p>	१५	१

* प्रश्नपत्रिकेचे स्वरूप व गुणविभागणी *

Pattern of Question Paper

एकूण गुण – ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना : १. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

१. राष्ट्रीय, शैक्षणिक, सांस्कृतिक, सामाजिक, कृषी, आरोग्य, भाषा व साहित्य क्षेत्रातील ताज्या घडामोडी यापैकी एका विषयावर आकाशवाणी किंवा चित्रवाणीसाठी संहितालेखन.
२. उद्योग व सेवाक्षेत्रे आणि प्रसारमाध्यमे यांना भेटी देऊन तेथील भाषिक उपयोजनावर आधारित प्रकल्प तयार करणे.

मूलभूत वाचन :

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| १. काणे, पुष्पा | नभोवाणी कार्यक्रम : तंत्र आणि मंत्र, इंडिया बुक कंपनी, पुणे |
| २. भागवत, यशोदा | बोलका कॅमेरा, मौज प्रकाशन, पुणे |
| ३. राजाध्यक्ष, विजया (संपा.) | मराठी वाङ्मय कोश, साहित्य आणि संस्कृती मंडळ, मुंबई |
| ४. मोरे, सदानंद व लिंगाळे, शरणकुमार | प्रबोधनपर वैचारिक वाङ्मय, य. च. म. मु. विद्यापीठ, नाशिक |
| ५. रेगे, मे. पुं. व इतर | मराठी विचारवंत आणि आपण, मौज प्रकाशन गृह, मुंबई |
| ६. शेख, यास्मिन | मराठी लेखन मार्गदर्शिका, राज्य मराठी विकास संस्था, मुंबई |
| ७. फडके, अरुण | मराठी लेखन-कोश, अंकुर प्रकाशन, ठाणे |
| ८. धायगुडे, य. ए. | मुद्रितशोधन, दि पूना प्रेस ओनर्स असो. लि. पुणे |
| ९. खोपकर, अरुण | चित्रव्यूह, लोकवाङ्मय गृह, प्रकाशन, मुंबई |
| १०. वरखेडे, रमेश | सायबर संस्कृती, इन्स्टिट्यूट ऑफ नॉलेज इंजिनिअरिंग, नाशिक |
| ११. कांबळे, अमर | स्पर्धा परीक्षेला सामोरे जाताना, निर्मिती संवाद प्रकाशन, कोल्हापूर |
| १२. कांबळे, अमर | मुलाखत कौशल्य, निर्मिती संवाद प्रकाशन, कोल्हापूर |

पूरक वाचन :

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| १. कुंभार, प्रकाश | उपयोजित भाषाविज्ञान आणि प्रसारमाध्यमे, अक्षरदालन, कोल्हापूर |
| २. जोशी, प्रभाकर | उपयोजित मराठी, प्रशांत पब्लिकेशन्स, जळगाव |
| ३. तौर, पृथ्वीराज | मराठी भाषिक कौशल्ये विकास, अथर्व पब्लिकेशन्स, धुळे |
| ४. फडके, अरुण | शुद्धलेखन मार्गप्रदीप, अंकुर प्रकाशन, ठाणे |
| ५. दीक्षित, विजय | चित्रपट : एक कला, रेणुका प्रकाशन, नाशिक |
| ६. इनामदार, एस. डी. | माध्यम, एस. डी. प्रकाशन, पुणे |

संदर्भ ग्रंथ :

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|--|---|
| १. देशपांडे, वि. भा. व
जोगळेकर, सुषमा (संपा.) | मराठी कलाभिरुची, कॉन्टिनेन्टल प्रकाशन, पुणे |
| २. पचिंद्रे, श्रीराम | मुलाखत आणि शब्दांकन, अनुबंध प्रकाशन, पुणे |
| ३. ढोले, विश्राम | प्रसारमाध्यमे आणि प्रयोगकला, लोकवाङ्मय गृह, मुंबई |
| ४. शिंदे, अरुण | सत्यशोधकीय नियतकालिके, कृष्णा संशोधन व विकास अकादमी, मंगळवेढा |
| ५. जोशी, प्रभाकर व
वले, वासुदेव | उपयोजित मराठी, प्रशांत पब्लिकेशन्स, जळगाव |
| ६. रेगे, मे. पुं. (संपा.) | नवभारत (मासिक), व्यावहारिक मराठी विशेषांक, प्राज्ञ पाठशाळा मंडळ,
वाई (ऑगस्ट-सप्टेंबर १९८१) |
| ७. भालके, रामचंद्र व इतर | प्रबोधनपर साहित्य : स्वरूप आणि संकल्पना, य.च.म.मु. विद्यापीठ, नाशिक |
| ८. चपळगावकर, नरेंद्र | मराठीतील वैचारिक साहित्य : लेखक आणि समाज, नवभारत, जून २०१६
वर्ष २९, अंक ९ |
| ९. चौसाळकर, अशोक | विचारवंत आणि समाज, युनिक अँकडमी, पुणे |
| १०. गावडे, गोपाळ | मामा वरेरकर : प्रयोगाची नांदी, मनोकामना प्रकाशन, इस्लामपूर, २०१७ |
| ११. कांबळे, विनोद | सर्जननोंदी, वाचनकट्टा प्रकाशन, प्रा. लि., कोल्हापूर, २०१९ |

शिवाजी विद्यापीठ, कोल्हापूर
SHIVAJI UNIVERSITY, KOLHAPUR

मराठी अभ्यास मंडळ

Board of Studies in Marathi

पसंतीवर आधारित श्रेयांक पद्धती

Choice Based Credit System

बी.ए. भाग-३ : B.A. Part-III

अभ्यासक्रम : Syllabus

June, 2020 onward

सत्र-६ : Semester No. 6 : अभ्यासपत्रिका क्र. XVI

Discipline Specific Elective (DSE-E-130)

विद्याशाखीय विशेष निवड (DSE-E-130)

वाङ्मय प्रकाराचे अध्ययन : ललित गद्य (व्यक्तिचित्रे)

पाठ्यपुस्तक : मुलखावेगळी माणसं (संपादन)

शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर

उद्दिष्टे :

१. ललित गद्य वाङ्मयप्रकाराचे स्वरूप अभ्यासणे.
२. व्यक्तिचित्र संकल्पना व स्वरूप समजून घेणे.
३. प्रवाहानुरूप मराठीतील व्यक्तिचित्रांचे स्वरूप अभ्यासणे.
४. 'मुलखावेगळी माणसं' मधील व्यक्तिविशेषांचे आकलन करून घेणे.
५. 'मुलखावेगळी माणसं' मधील शैक्षणिक, सामाजिक, सांस्कृतिक, राजकीय पर्यावरण आणि कौटुंबिक भावविश्व अभ्यासणे.
६. 'मुलखावेगळी माणसं' मधील ग्रामीण व उपेक्षितांच्या जीवनाचे आकलन करून घेणे.
७. 'मुलखावेगळी माणसं' मधील अभिव्यक्ती, निवेदनशैली व भाषाविशेष अभ्यासणे.

अभ्यासक्रम

अ. क्र. Sr. No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	ललित गद्य : संकल्पना व स्वरूप व्यक्तिचित्रे : संकल्पना, स्वरूप/वैशिष्ट्ये आणि वाटचाल व्यक्तिचित्र लेखनासाठी आवश्यक गुण	१५	१
विभाग २ Module II	१. रामा मैलकुली - व्यंकटेश माडगूळकर २. मृत्यूचे चुंबन घेणारा महाकवी - प्र. के. अत्रे ३. निळू मांग - अण्णाभाऊ साठे ४. मोरणी - विभावरी शिरूरकर	१५	१
विभाग ३ Module III	५. जमीला जावद - हमीद दलवाई ६. यंकटअण्णा - व. वा. बोधे ७. दगडूमामा - उत्तम कांबळे ८. मुंबईचा चित्रकार - अरुण खोपकर	१५	१
विभाग ४ Module IV	९. हीरा - इंद्रजित भालेराव १०. बाबा मास्तर - दि. बा. पाटील ११. दादासाहेब वस्ताद - सयाजीराजे मोकाशी १२. डोकेवाला संशोधक : दादाजी रामजी खोब्रागडे - व्ही.एन.शिंदे	१५	१

Pattern of Question Paper

एकूण गुण - ४० : Total Marks-40

प्रश्न १	योग्य पर्याय निवडा	०५ गुण
प्रश्न २	अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न	१५ गुण
प्रश्न ३	अंतर्गत विकल्पासह लघूत्तरी प्रश्न (तीन पैकी दोन)	१० गुण
प्रश्न ४	टिपा लिहा (चार पैकी दोन)	१० गुण

सूचना :

१. विभाग एक वर वस्तुनिष्ठ प्रश्न असणार नाहीत.
२. गटप्रकल्पासाठी अंतर्गत मूल्यमापनाकरिता प्रती विद्यार्थ्यास दहा गुण आहेत.

गटप्रकल्प विषय :

आपल्या परिसरातील शैक्षणिक, सामाजिक, सांस्कृतिक, कला, क्रीडा, आरोग्य, राजकीय इत्यादी समाजजीवनाच्या कोणत्याही क्षेत्रातील व्यक्तींची व्यक्तिचित्रे लिखित स्वरूपात प्रती प्रकल्पनुरूप ५ (किमान एका प्रकल्पकास एक नुसार) तयार करून ती एकत्रित जमा करावीत.

मूलभूत वाचन :

१. वास्कर, आनंद (संपा.) वाङ्मयप्रकार संकल्पना (डॉ. विजय निंबाळकर गौरवग्रंथ), अन्वय प्रकाशन, पुणे
२. चौधुले, वि. शं. मुक्तगद्य : संकल्पना आणि उपयोजन, मॅजेस्टिक प्रकाशन, मुंबई, २००८
३. शिंदे, रणधीर ललित गद्य ते मुक्तगद्य (लेख), दै. महाराष्ट्र टाईम्स, २९-१२-२०१३
४. मालशे, मिलिंद साहित्य प्रकाराची संकल्पना (लेख), साहित्य : अध्यापन आणि प्रकार, (संपा.) श्री. पु. भागवत, सुधीर रसाळ, मौज प्रकाशन, मुंबई, १९८७
५. हातकणंगलेकर, जहागीरदार, पवार, गो. मा. मराठी साहित्य : प्रेरणा आणि स्वरूप, पॉप्युलर प्रकाशन, मुंबई, १९८६
६. पुरोहित, के. ज. लघुनिबंध, साहित्य अकादमी, नवी दिल्ली

पूरक वाचन :

१. माडगूळकर, व्यंकटेश माणदेशी माणसं, मेहता पब्लिशिंग हाऊस, पुणे, पुनर्मुद्रण, २०१८
२. अत्रे, प्र. के. मृत्यूचे चुंबन घेणारा महाकवी : साने गुरुजी, पार्श्व पब्लिकेशन, कोल्हापूर, १९६२
३. साठे, अण्णाभाऊ बरबाद्या कंजारी, श्रमिक प्रतिष्ठान, कोल्हापूर, लोकावृत्ती, २०१०
४. शिरूरकर, विभावरी दोघांचे विश्व आणि इतर काही कथा, कॉन्टेनेन्टल प्रकाशन, पुणे, १९५७
५. दलवाई, हमीद जमीला जावद आणि इतर कथा, साधना प्रकाशन, पुणे, २०१६
६. बोधे, व. वा. गावाकडची माणसं, अक्षरबंध प्रकाशन, पुणे, २००७
७. कांबळे, उत्तम कावळे आणि माणसं, मनोविकास प्रकाशन, पुणे, आ.दु., २०१०
८. खोपकर, अरुण चित्रव्यूह, लोकवाङ्मय गृह, मुंबई
९. भालेराव, इंद्रजित गाई घरा आल्या, प्रतिभास प्रकाशन, परभणी
१०. पाटील, दि. बा. भली माणसं, मनोकामना प्रकाशन, इस्लामपूर, २०१३
११. मोकाशी, सयाजीराजे पंधरा ऑगस्ट, मुक्तरंग प्रकाशन, लातूर, २०१६
१२. शिंदे, व्ही. एन. हिरव्या बोट्यांचे किमयागार, तेजस प्रकाशन, कोल्हापूर, २०१९

संदर्भ ग्रंथ :

१. जोशी, प्र. न. मराठी वाङ्मयाचा विवेचक इतिहास, अर्वाचीन काळ (१८०० ते १९८०), स्नेहवर्धन प्रकाशन, पुणे
२. भागवत, श्री. पु. साहित्य अध्यापन आणि प्रकार (प्रा. वा. ल. कुलकर्णी गौरवग्रंथ), मौज प्रकाशन गृह, मुंबई

SHIVAJI UNIVERSITY, KOLHAPUR



**Accredited By NAAC with 'A++' Grade
CHOICE BASED CREDIT SYSTEM**

Syllabus For

B. A. Part - I GEOGRAPHY

(Syllabus to be implemented from June, 2022 onwards)

Shivaji University, Kolhapur

PROGRAM /COURSE STRUCTURE and SYLLABUS as per the Choice Based Credit System (CBCS) designed in accordance with Learning Outcomes-Based Curriculum Framework (LOCF) of National Education Policy (NEP) 2020 for B.A. / B.Sc. Geography Degree (Basic/Honours) w.e.f. Academic Year 2022-23 and onwards

PREAMBLE

This course intends to acquaint the students with various dimensions of, as also the challenges, confronting the physical geography. The Geography students of B. A. Part-I can better understand all modern concepts in Physical Geography and Human Geography in brief but in adequate manner. Geography has emerged through time as a transdisciplinary subject integrating the regional diversity with the concepts of the timing of space and the spacing of time. It provides broad, human and place-centred perspectives on the transformation of rural ecology to globalized urban landscape at different levels, from the local/regional/national to global. Geography is transformed through:

- Study from Local to Global ecology and its planning
- Traditional Techniques to Contemporary Spatial Information Technology
- Macro to Micro-level Social Perception Approach

OBJECTIVES

The objective of this course is to introduce the latest concepts in Physical Geography and Human Geography, Specifically in Atmosphere, Lithosphere, Fluvial Cycle, Hydrosphere, Human races, Population growth, Characteristics of Population and Settlements.

ELIGIBILITY FOR ADMISSION

Candidates who have passed any PUC Science, Commerce, Arts examinations in Maharashtra State or any other States in India with equal qualifications are eligible for admission to the course.

DURATION OF THE COURSE

The duration of the B.A./B.Sc. Geography Program shall extend over 8 semesters (four academic years) of 16 weeks or more, each with a maximum of 90 actual working days of instruction in each semester.

MEDIUM OF INSTRUCTION:

The medium of instruction shall be Marathi and English.

PROGRAM OUTCOMES

By the end of the program the students will be able to:

PO1: Relating to Knowledge

- 1.1 Provide explanation of definitions, relevant terms and concept of geography.
- 1.2 Provide better explanation about relevant principles, theories and models in geography.
- 1.3 Provide idea about detail knowledge regarding man and environmental process.

PO2: Understanding and application

- 2.1 Know the importance of spatio-temporal scale.
- 2.2 Know the relation or complex nature between physical and human environments.
- 2.3 Identify the importance of places, environment and people.
- 2.4 Understand how processes bring changes in systems and its distribution.

PO3: Students Skills

- 3.1 Collection, representation and Interpretation of geographical data and sources.
- 3.2 Presentation of geographical evidence and ideas with identifying geographical trends and patterns.
- 3.3 Application of the cartographical techniques to support the inferences of geographical aspects.
- 3.4 Make obvious skill of analysis of geographical information.

PO4: Students Evaluation

- 4.1 Critically evaluate the basics of geography.
- 4.2 Assess the effects of geographical processes and its impact on physical and human environments.
- 4.3 Assess how the viewpoints of different groups of people, potential conflicts of interest and other factors interact in the management of physical and human aspects.
- 4.4 Evaluate the relative success or failure of initiatives.

PROGRAMME SPECIFIC OUTCOME (PSO)

B. A. Part-I

- 1) The Students are known the branches of Geography and latest concepts in Physical Geography Specifically in Atmosphere, Lithosphere, Fluvial Cycle and Hydrosphere.
- 2) The students are understood the Human races, Population growth, Characteristics of Population and Settlements.

SCHEME OF EXAMINATION:-

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks (as applicable to the course)

- The Theory paper shall carry internal 10 marks (as applicable to the course)
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

Continuous Evaluation Methods (40 Marks):

Q. 1: Multiple Choose Question (05)

Q. 2: Write short notes (any three) (15)

Q. 3: Write detail answers on any two (20)

Internal Evaluation 10 Mark

B.A.-I Semester-I - Home Assignment / Unit Test / Practical / Case Study

B.A.-I Semester-II – Home Assignment / Unit Test / Practical / Case Study

B. A. Part-I Semester I
Geography
(THEORY with Practical)

Title of the Course: Physical Geography

Code: DSC B10

Number of Theory Credits	Number of lecture hours/ semester	Number of Theory Classes per week
04	60	04

Course Outcomes

1. Students will be able to understand the basic concepts in Physical Geography.
2. Students understand basic terms used to describe physical processes and landscape forms.
3. Students understand the atmosphere.
4. Students understand the concept of maps and globe.

Course Objectives

This course aims to

1. To study basic principles of the Physical Geography.
2. To understand the lithosphere, denudation, landforms, atmospheric elements and structure.
3. To understand the concept of maps and globe.

Syllabus

Semester - I

	Teaching Hours	Credits
Module – I Introduction to Physical Geography	10	0.75
1.1 Meaning and Definitions		
1.2 Scope of Physical Geography		
1.3 Branches of Physical Geography		
1.4 Importance of Physical Geography		
Module – II Lithosphere	10	01
2.1 Interior of the earth		
2.2 Wagner’s Continental Drift Theory		
2.3 Earthquakes – Causes and Effects		
2.4 Volcano – Causes and Effects		
Module – III Denudation	15	01
3.1 Weathering: Concept and Types		
3.2 Davis Concept of Cycle of Erosion		
3.3 Erosional Landforms of River.		
3.4 Depositional Landforms of River.		

Module- IV Atmosphere	15	01
4.1 Composition and Structure of Atmosphere		
4.2 Insolation: Factors affecting on Insolation		
4.3 Temperature: Distribution of temperature (Vertical and Horizontal)		
4.4 Atmospheric Pressure: Belts and Planetary Winds.		
Module- V Map (Practical)	10	0.25
5.1 Map: Definition, Elements and Types		
5.2 Maps and Globe- Similarities and Differences		
5.3 Significance and Use of Maps and Globe		

Reference Books

- 1) Clyton K., (1986), Earth Crust, AdusBook , London.
- 2) Davis W. M., (1909), Geographical Essay, Ginnia Co.
- 3) Dayal P., (1996), Text Book of Geomorphology, Shukla Book Depot, Patna.
- 4) Kale V.S. and Gupta A., (2001), Elements of Geomorphology, Oxford University Press, Kolkata.
- 5) Kale V.S. and Gupta A., (2001), Elements of Geomorphology, Oxford Univ. Press. Monkhouse, (1951), Principle of Physical Geography, McGraw Hill Pub – New York.
- 6) Pitty A. F., (1974), Introduction to Geomorphology, Methuen London.
- 7) Singh Savindra, (2000), Physical Geography, PrayagPustakBhavan, 20-A, University Road, Allahabad – 211002.
- 8) Steers J. A., (1964), The Unstable Earth Some Recent Views in Geography, Kalyani Publishers, New Delhi.
- 9) Swaroop Shanti, (2006), Physical Geography, King Books, NaiSarak, Delhi – 110006.
- 10) Wooldridge S. W. and Morgan R. S., (1959), The Physical Basis of Geography and Outline of Geomorphology, Longman Green and Co. London.

Reference Websites

- 1) <http://www.solarviews.com/eng/earth.htm>
- 2) <http://www.moorlandschool.co.uk/earth/tectonic.htm>
- 3) <https://www.usgs.gov/>
- 4) <https://www.ksndmc.org>

Suggested equivalent online courses:

- https://onlinecourses.swayam2.ac.in/aic19_ge05/preview
- https://onlinecourses.swayam2.ac.in/nou21_bt03/preview

B. A. Part-I Semester II
Geography
(THEORY with Practical)

Title of the Course: Human Geography

Code: DSC B24

Number of Theory Credits	Number of lecture hours/ semester	Number of Theory Classes per week
04	60	04

Course Outcomes

1. Students will be able to understand the basic concepts in Human Geography.
2. Students understand basic terms used to describe population, settlements and agriculture.
3. Students understand the concept of Google Earth and Google Map.

Course Objectives

This course aims to

1. To study basic principles of the Human Geography.
2. To understand the concepts and terms regarding the population, settlements and agriculture.
3. To understand the concept of Google Earth and Google Map.

Syllabus

Semester - II

	Teaching Hours	Credits
Module- I Human Geography	11	0.75
1.1 Definitions of Human Geography		
1.2 Scope of Human Geography		
1.3 Branches of Human Geography		
1.4 Importance of Human Geography		
Module –II Population	13	01
2.1 Factors affecting on distribution of population		
2.2 Malthus’ theory of Population Growth		
2.3 Demographic Transition Theory		
2.4 Migration: Types and Effects		
Module –III Settlement	13	01
3.1 Types and patterns of rural settlements		
3.2 Functions of Rural Settlements		
3.3 Factors affecting on urbanization		
3.4 Functions of Urban Centers		
Module – IV Agriculture	13	01

4.1 Origin and History of Agriculture

4.2 Types of Agriculture

4.3 Factors affecting on agriculture

4.4 Problems of Agriculture

Module- V Google Earth

10

0.25

5.1 Concept of Google Earth

5.2 Application of Dot, Line and Polygon according to Feature

5.3 Exercises with Google Earth Programme

Reference Books

1. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
2. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
3. Daniel, P.A. and Hopkinson, M.F. (1989) The Geography of Settlement, Oliver & Boyd, London.
4. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
5. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
6. Kaushik, S.D. (2010) ManavBhugol, Rastogi Publication, Meerut.
7. Maurya, S.D. (2012) ManavBhugol, ShardaPustakBhawan. Allahabad.
8. Hussain, Majid (2012) ManavBhugol. Rawat Publications, Jaipur
9. BeaujeuGamier : Geography of Population, Longman, London-1978
10. Clarke J.I. : Population Geography, Pergamon Press Oxford – 1972
12. HaggetPetter : Human Geography
13. Ghosh B.N. : Fundamentals of Population Geography
14. Hussin M. : Human Geography 1994
15. Money D.S. : Human Geography
16. Perpillou A.V. : Human Geography, Longman, London- 1986
17. Robinson H. : Human Geography, 1976
18. Mishra &Puri : Indian Economy 2004
19. India- 2008 : Govt. of India
20. Hassan Mohammed I. : Population Geography, 2005
21. BhendeAsha&KanitkarTara :Principles of Population studies
22. Perillouav : Human Geography, 1986

23. Singh, R.Y. : Geography of Settlement, 1998
24. Singh, Gopal : Mapwork & Practical Geography, 1999
25. Sawant S.B. & Athavale A.S. Population Geography, Mehata publishing house, Pune
26. Chandana R.C. : Geography of Population, Kalyani Pub. Ludhayana 1988
२७. सवदी.ए.बी. आणि कोळेकर .पी.एस.व लोक संख्या भूगोल निराली प्रकाशन पुणे.
२८. ताचोळे द.धो.—लोकसंख्याशास्त्र.
२९. पवार, अडसुळ, फुले, पाटील—मानवी भूगोल सप्रेम प्रकाशन कोल्हापूर.
३०. प्रकाश सावंत—भूरूपशास्त्र व हवामानशास्त्र, फडके प्रकाशन

Reference Websites

- 1) <http://www.solarviews.com/eng/earth.htm>
- 2) <http://www.moorlandschool.co.uk/earth/tectonic.htm>
- 3) <https://www.usgs.gov/>
- 4) <https://www.ksndmc.org>

Suggested equivalent online courses:

https://onlinecourses.swayam2.ac.in/aic19_ge05/preview

https://onlinecourses.swayam2.ac.in/nou21_bt03/preview

SHIVAJI UNIVERSITY, KOLHAPUR



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CHOICE BASED CREDIT SYSTEM

Syllabus For

B. Sc. Part - I GEOGRAPHY

(Syllabus to be implemented from June, 2022 onwards)

Shivaji University, Kolhapur

PROGRAM /COURSE STRUCTURE and SYLLABUS

as per the Choice Based Credit System (CBCS) designed in accordance with

Learning Outcomes-Based Curriculum Framework (LOCF)

of National Education Policy (NEP) 2020

B. Sc. Part-I Geography Degree (Basic/Honours)

w.e.f. Academic Year 2022-23 and onwards

1. TITLE: Physical Geography and Human Geography

- | | | |
|----|-----------------|--|
| 1) | (Semester – I) | i) DSC 19 A - Physical Geography Paper-I
ii) DSC 20 A - Physical Geography Paper-II |
| 2) | (Semester – II) | i) DSC 20 B - Human Geography Paper-I
ii) DSC 20 B - Human Geography Paper-II |

Optional Subjects under the Faculty of Science.

2. YEAR OF IMPLEMENTATION:

Revised Syllabus will be implemented from June, 2021 onwards.

3. PREAMBLE:

The Geography students of B. Sc. Part-I can better understand all latest concepts in Physical Geography and Human Geography in brief but in adequate manner.

4. GENERAL OBJECTIVES OF THE PAPER:

The objective of this course is to introduce the latest concepts in Physical Geography and Human Geography, Specifically in Atmosphere, Composition of the Earth, Fluvial Cycle, Hydrosphere, Human races, Population growth and distribution, Characteristics of Population and Settlements.

5. DURATION:

The course shall be a full time course.

6. PATTERN:

Pattern of Examination will be Semester for Theory.

7. ELIGIBILITY FOR ADMISSION:

As per eligibility criteria prescribed for each course and the merit list in qualifying examination.

8. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English.

9. STRUCTURE OF COURSE:

FIRST YEAR (Each of Papers- I & II)

Sr. No.	Subject or Paper	Marks
1	Physical Geography (Papers- I & II)	100
2	Human Geography (Papers- I & II)	100
Practical (Pattern of Examination will be ANNUAL.)		50

10. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject or Paper	Teaching Scheme (Credits / Week)			
		Credits	Theory	Practical	Total
1	Physical Geography	04	04	--	04
2	Human Geography	04	04	--	04
Practical (Pattern of Examination will be ANNUAL.)		02	--	02	02

11. SCHEME OF EXAMINATION:

Question Paper will be set in the view of the / in accordance with the entire Syllabus and preferably covering each unit of syllabi of each semester.

12. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

B. Sc. Part – I Semester I
(w.e.f. June, 2022)
DSC- 19 A: Geography (Physical Geography) - I
Marks: 50 Credits: 02

Title	No. of Lecture	Credits
Module I: Introduction to Physical Geography	19	(1)
1.1 Definition, Nature and Scope of Physical Geography		
1.2 Branches of Physical Geography		
1.3 Components of Earth systems		
1.4 Importance of Physical Geography		
1.5 Interior of the Earth: Structure of the Earth's interior, Density and Temperature in the interior of the Earth.		
1.6 Forces of the Earth Crust: Endogenetic forces, Diastrophic forces: Epeirogenetic Forces, Orogenitic Forces		
1.7 Wegener's Theory of Continental Drift.		
1.8 Theory of Plate tectonics: Plates and boundaries and associated landforms		
Module II Denudation	19	(1)
2.1 Concept of Denudation		
2.2 Weathering: Concept, Types of Weathering: Mechanical, chemical and Biotic Weathering		
2.3 Fluvial Cycle of Erosion: W. M. Davis		
2.4 Evolution of Landforms: Erosional and Depositional		
2.4.1 Fluvial		
2.4.2 Aeolian		

Reference books:

1. Conserva H. T. 2004: Illustrated Dictionary of Physical Geography, Author House, USA.
2. Christopherson, R.W. 2000, Geo-systems, Prentice Hall, INC. USA. Hamblin, W.K., 1989: The Earth's Dynamic Systems, Macmillan Publishing Company, New York.
3. Gabler, R. E., Peterson, J. F. and Trapasso, L. M., 2007: Essentials of Physical Geography (8th Edition), Thomson, Brooks/ Cole, USA.

4. Garrette, N., 2000: Advance Geography, Oxford University Press.
5. Goudie, A., 1984: The Nature of Environment: An Advanced Physical Geography, Basil Blackwell Publishers, Oxford.
6. Husain, M., 2001: Fundamentals of Physical Geography, Rawat Publication, Jaipur.
7. Kale, V. S. and Gupta, A., 2001: Introduction to Geomorphology, Orient Longman, Calcutta.
8. Monkhouse, F. J., 1996: Principles of Physical Geography, Hodder and Stoughton, London.
9. Robinson, H., 1969: Morphology and Landscape, University Tutorial Press Ltd, London.
10. Siddhartha, K., 2001: The Earth's Dynamic Surface, Kishalaya Publications Pvt. Ltd, New Delhi.
11. Strahler, A.A. and Strahler, A. N., 2002: Physical Geography: Science and Systems of the Human Environment, John Wiley & Sons, New York.

B. Sc. Part – I Semester I

(w.e.f. June, 2022)

DSC- 19 A: Geography (Physical Geography) - II

Marks: 50 Credits: 02

Title	No. of Lecture	Credits
Module I: Introduction to Climatology	19	1
1.1 Definition and Scope		
1.2 Composition and Structure of Atmosphere		
1.3 Elements of Weather and Climate		
1.4 Insolation: Definition, solar constant, factors affecting on distribution of Insolation, Distribution of Insolation and Heat Balance of the Earth.		
1.5 Temperature: Controlling Factors of Temperature, Distribution of Temperature: Vertical and Horizontal.		
1.6 Atmospheric Pressure: Definition, Affecting Factors and Distribution of air pressure: Vertical and Horizontal, Pressure Belts, Shifting of Pressure Belts.		
1.7 Winds: Planetary Winds		
1.8 Climate Change: Concept, Natural and Human Causes of Climate Change		
Module II: Oceanography	18	1
2.1 Definition		
2.2 Surface Configuration of Ocean Floor		
2.3 Temperature of Ocean Water: Factors Affecting on Horizontal Distribution of Temperature of Ocean Water, Vertical Distribution of Temperature Ocean Water		
2.4 Salinity of Ocean Water: Affecting Factors on salinity of ocean water, Distribution of		

salinity – Horizontal and Regional

2.5 Ocean Currents:

2.5.1 Factors affecting on ocean currents and Types of Ocean Currents

2.5.2 Ocean Currents: Pacific, Atlantic and Indian Ocean

2.6 Man and Ocean

Reference books:

1. Conserva H.T., 2004: Illustrated dictionary of Physical Geography, Author House, USA.
2. Critchfield, H.J., 1997: General Climatology, Prentice Hall of India Pvt. Ltd, New Delhi.
Dasgupta, A. and Kapoor, A.N., Principles of Physical Geography. Grald, S., General Oceanography.
3. Gabler R.E., Petersen J.F. and Trapasso L.M., 2007: Essentials of Physical Geography (8th edition), Thompson, Brooks/Cole, USA.
4. Garrett N. 2000: Advanced Geography, Oxford University Press.
5. Goudie A., 1984: The nature of the environment an advanced physical geography, Basil Blackwell Publishers, Oxford.
6. Hamblin W.K., 1995: Earth's Dynamic System, Prentice Hall, N J.
7. Husain M., 2002: Fundamentals of Physical Geography, Ravat Publication, Jaipur.
8. Lutgens, F.K. and Tarbuck, E.J., 2007: The Atmosphere, Pearson Prentice Hall, New Jersey. Pirie, R.G., Oceanography (Contemporary).
9. Monkhouse F.J. 200: Principals of Physical Geogeaphy, Platinum Publishers, Kolkatta.
10. Ross, D.A., 1988: Introduction to Oceanography. Prentice Hall, New Jersey.
11. Sharma, R.C. and Vatel. M., Oceanography for Geographers.
12. Strahler, A.A. and Strahler, A. N., 2002: Physical Geography: Science and Systems of the Human Environment, John Wiley and Sons, INC.
13. Strahler, A.H. and Strahler, A. N., 1992: Modern Physical Geography, John Wiley and Sons, INC.
14. Strahler, A.N., 1965: Introduction to Physical Geography, John Wiley and Sons,
15. Strahler A.N., Strahler A.H. 2008: Modern Physical Geography. John Wiley and Sons, New York.
16. Trewartha, G., Introduction to Weather and Climate. King, C.A.M., Oceanography for Geographers. Lake, P., Physical Geography.

B. Sc. Part – I Semester - II **(w.e.f. June, 2022)**

DSC-19B: Geography (Human Geography) -I

Marks: 50 Credits: 02

Title of the Unit	No. of Lecture	No. of Credits
Module I Human Geography and Human Race	18	(1)
1.1 Definition and Nature, Scope of Human Geography		
1.2 Branches of Human Geography		
1.3 Importance of Human Geography		
1.4 Human Races: Classification and World Racial Groups		
1.5 Human Life: ESKIMO (Cold) and PYGMY (Hot)		
(Location, Geographical environment, Physical traits, Food & clothing and Economic activity)		
Module II Population	19	(1)
2.1 Population Growth: Concept and Population Growth in India		
2.2 Factors Affecting on the Distribution of Population		
2.3 Distribution of the World Population		
2.4 Population Growth Theories: Malthusian Theory and Notestein's Theory of Demographic Transition		
2.5 Demographic Transition in India		

DSC-20B: Human Geography-II

Marks: 50 Credits: 02

Module I Composition of Population and Population Migration	19	(1)
1.1 Age Composition: Factors Affecting on Age Composition and Age Composition in India.		
1.2 Sex Ratio: Factors Affecting on Sex Composition and Sex Composition in India.		
1.3 Migration: Concept, types and Causes		
1.4 Consequences of Migration.		
1.5 Population Policies of India and Population Projections		
Module II Settlements	18	(1)
2.1 Definition and Types of Settlements		
2.2 Pattern of Rural Settlements		
1.3 Functions of Rural Settlement		

1.4 Urbanization

1.5 Classification of Urban Settlement

1.6 Functions of Urban Settlement

References:

1. Bergwan, Edward E 1995: Human Geography; Culture, Connections and Landscape, Prentice-Hall, New Jersey.
2. Carr, M. 1987: Patterns, Process and change in Human Geography. MacMillan Education, London.
3. Fellman, J. L. 1997: Human Geography—Landscapes of Human Activities. Brown and Benchman Pub., U.S.A.
4. De Blij H. J. 1996: Human Geography, Culture, Society and Space John Wiley, New York.
5. Johnston, R.J. (editor). 1994: Dictionary of Human Geography Blackwell, Oxford.
6. Mc Bride, P. J. 1996: Human Geography Systems, Patterns and Change, Nelson, U.K. and Canada.
7. Michael, Can 1997: New Patterns: Process and Change in Human Geography Nelson,
8. Rubenstein, J.H. and Bacon R.S. 1990: The Cultural Landscape — an Introduction to Human Geography. Prentice Hall, India, New Delhi.
9. Singh, K.N. 1992: People of India, An introduction Seagull Books.
10. Spate O.H.K. and Learmonth A. T. A. 1968: India and Pakistan Methuen, London.
11. U. V. Jagdale & P. G. Saptarshi (2007): Human Geography, Diamond Publication (Marathi)
12. Johnson R. Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography
13. Chandna, R.C. (2010) Population Geography, Kalyani Publisher.
14. Hassan, M.I. (2005) Population Geography, Rawat Publications, Jaipur
15. Johnston R; Gregory D, Pratt G. et al. (2008) The Dictionary of Human Geography, Blackwell Publication.
16. Jordan-Bychkov et al. (2006) The Human Mosaic: A Thematic Introduction to Cultural Geography. W. H. Freeman and Company, New York.
17. Kaushik, S.D. (2010) Manav Bhugol, Rastogi Publication, Meerut.
18. Maurya, S.D. (2012) Manav Bhugol, Sharda Pustak Bhawan. Allahabad.
19. Hussain, Majid (2012) Manav Bhugol. Rawat Publications, Jaipur
20. Beaujeu Gamier : Geography of Population, Longman, London-1978
21. Clarke J.I. : Population Geography, Pergamon Press Oxford – 1972

22. Chandana R.C. : Geography of Population, Kalyani Pub. Ludhayana 1988
23. Hagget Petter : Human Geography
24. Ghosh B.N. : Fundamentals of Population Geography
25. Hussin M. : Human Geography 1994
26. Money D.S. : Human Geography
27. Perpillou A.V. : Human Geography, Longman, London- 1986
28. Robinson H. : Human Geography, 1976
29. Mishra &Puri : Indian Economy 2004
30. India- 2008 : Govt. of India
31. Hassan Mohammed I. : Population Geography, 2005
32. Bhende Asha & Kanitkar Tara : Principlas of Population studies
33. Perillouav : Human Geography, 1986
34. Singh, R.Y. : Geography of Settlement, 1998
35. Singh, Gopal : Mapwork & Practical Geography, 1999
36. Sawant S.B. & Athavale A.S. Population Geography, Mehta publishing house, Pune.

**B. Sc. Part – I Practical-I (Based on paper I & II)
(w.e.f. June, 2022)**

Marks: 50 (Credits: 02)

General Cartography (Practical)

Title of the Unit	No. of Credits
Module I Map	(0.25)
1.1 Map: Definition, Elements and Types	
1.2 Maps and Globe – Similarities and Differences	
1.3 Significance and uses of Maps and Globes	
Module II Map Scale	(0.50)
2.1 Meaning and Definition	
2.2 Methods of Representation of scale	
i) Verbal	
ii) Numerical	
iii) Graphical	
2.3 Construction of Graphical Scale	
i) Simple (Plane Scale)	
ii) Time and Distance Scale	
iii) Diagonal Scale	
Module III Map Projection	(0.25)
3.1 Definition and Classification of Map Projection	
i) Based on the methods of Construction –	
Perspective and Non-perspective	
ii) Based on Developable Surface used -	
Conical, Cylindrical, Zenithal, Conventional.	
iii) Based on Position of Tangent Surfaces – Polar,	
Equatorial (normal), and Oblique.	
iv) Based on Position of view point or light –	

Gnomonic, Stereographic, Orthographic

v) Based on Preserved qualities -

i) Equal area projection (Homolographic)

ii) Orthographic Projection

iii) Azimuthal Projection (True Bearing Projection)

3.2 Graphical Construction of the following Projections:

i) Zenithal Polar Gnomonic Projection

ii) Cylindrical Equal –Area Projection

iii) Simple Conical Projection with one standard Parallel

iv) Mercator's Projection

Module IV Representation of Statistical Data (0.50)

4.1 Graphs and Diagrams

i) One Dimensional Diagrams:

a) Climograph

b) Hythergraph

4.2 Two Dimensional Diagrams:

a) Divided Circle

b) Divided Rectangle

4.3 Three Dimensional Diagram:

a) Cube Diagram

b) Proportional Spheres

4.4 Distributional Maps

a) Choropleth Map

b) Isopleths Map

Module V Remote Sensing, GIS and GPS (0.50)

5.1 Remote Sensing

a) Definition and Concept of Remote Sensing

b) Elements of Remote Sensing: EMR, Sensors and Platforms.

c) Application of Remote Sensing in Geography

5.1 GIS (Geographical Information System)

a) Definition and Concept of GIS

b) Elements of GIS

c) Application of GIS in Geography

5.3 GPS / GNSS (Geographical Positioning System / Geographical Navigational Satellite System)

a) Definition and Concept of GPS / GNSS

b) Application of GPS in Geography

c) Field Work – Determining Latitude, Longitude and Altitude.

Reference Books

1. Buoygoot, J. (1964): An Introduction to Map work and Practical Geography. University Tutorial, London.
2. Monkhouse, F. J. and Wilkinson, H. R. (1971): Maps and Diadgrams. Mathuen, London.
3. Raisz, E. (1962): Principals of Cartography, McGraw Hill Book Com., Inc, New York.
4. Robinson, A.H. and Shale, R. D. (1969): Elements of Cartography. John Wiley and Sons, Inc, New York.
5. Singh, L.R. and Singh, R., (1973): Map work and Practical Geography. Allahabad.
6. Curran, P. (1989): Principles of Remote Sensing, Longman, London.
7. Lo C. P. and Young A. K. W., (2011): Concepts and Techniques of Geographic Information Systems, PHI Learning Private Lim., New Delhi – 110001.
8. Dickinson, G.C., (1979): Maps and Air Photographs, Arnold Publisher, New Delhi.
9. Mishra, R.P and Ramesh A., (2000): Fundamentals of Cartography. Concept Publ. Com., New Delhi.
10. Burrough, P. A. and McDonell, R., (1998): Principles of Geographical Information Systems, Oxford University Press, Oxford.

NOTE:

- i) The details of field work, seminar, Group Discussion and Oral examination be given wherever necessary.
- ii) General/Specific instructions for Laboratory safety should be given wherever necessary.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography (RGM) IDS

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B.A.II Geography

GENERIC ELECTIVE

Sr. No.	Class	Semester	Old Title	Title of the Course New
1	B.A. II	III	Resource Geography of Maharashtra (Paper I)	Resource Geography of Maharashtra Course-I GE
2	B.A. II	IV	Resource Geography of Maharashtra (Paper II)	Resource Geography of Maharashtra Course –II GE

Abbreviation: G.E. – Generic Elective

B. A. Part - II **Resource Geography of Maharashtra Course-I GE** **June 2019 onwards**

1. **TITLE** : Subject – Resource Geography of Maharashtra (IDS)

Optional under the Faculty of Science

2. **YEAR OF IMPLEMENTATION**:- Revised Syllabus will be implemented from June 2019 onwards.

3. **PREAMBLE**:-

All of us are part and parcel of the Resource in Maharashtra. We will act as responsible citizens and participate proactively in all.

4. GENERAL OBJECTIVES OF THE COURSE

- 1) To understand the regional approach of Maharashtra State in geographical sense
- 2) To examine use and misuse of various resource in Maharashtra and to analyze future prospects.
- 3) To study various methods and approaches of conservation and management of Natural resources in Maharashtra.
- 4) To understand the concept of sustainable and integrated resource and its application.

5. DURATION

- The course shall be a full time course
- The duration of course shall be of one year (Two semesters Sem. – III & IV)

6. **PATTERN** Pattern of Examination will be Semester

7. **FEE STRUCTURE** As per the Shivaji University rules ; and as applicable to regular)

9. **ELIGIBILITY FOR ADMISSION** : As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

10. MEDIUM OF INSTRUCTION :

The medium of instruction shall be in English or Marathi. (as applicable to the course/programme concerned.)

11. STRUCTURE OF COURSE- ---

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.

SECOND YEAR B. A. ----- (NO.OF PAPERS FOUR)**SEMESTER THIRD**

Paper No.	Title	Marks
GE I	Resource Geography of Maharashtra-I	50

SEMESTER FOURTH

Paper No.	Title	Marks
GE II	Resource Geography of Maharashtra-II	50

12. SCHEME OF TEACHING AND EXAMINATION

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

SECOND YEAR

Scheme of Teaching and Examination

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Resource Geography of Maharashtra - I Paper - I	04	04	00	04	50	00	50
2	Resource Geography of Maharashtra - II Paper –II	04	04	00	04	50	00	50

13. SCHEME OF EXAMINATION :-

- The examination shall be conducted at the end of each semester
- The Theory paper shall carry 50 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING:- As Prescribed under rules & regulation for each degree/programme.

15. NATURE OF QUESTION PAPER AND SCHEME OF MARKING :-

(Unit wise weightage of marks should also be mentioned)

Semester III

Marks

Qus : 1) Objective Type Question (Multiple Choice) 05

Qus : 2) Short Notes (Any three out of five) 15

Qus: 3) Description Type Question (Any two out of three) 20

Semester IV

Qus : 1) Objective Type Question (Multiple Choice)	05
Qus : 2) Short Notes (Any three out of five)	15
Qus: 3) Broad Ans. Type Question (Any two out of three)	20

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Title of New Paper	
1	Resource Geography of Maharashtra Paper I & II	Semester- III	
		Paper-I	Resource Geography of Maharashtra - I
		Semester- IV	
		Paper-II	Resource Geography of Maharashtra - II

17. SPECIAL INSTRUCTIONS , IF ANY.

**NEW/REVISED CBCS PATTERN SYLLABUS FOR
B.A. (Part II) Geography GENERIC ELECTIVE
(Introduced from June 2019 onwards)**

Semester – III

(i) GE-1 (Paper - I)

(ii) Title of Paper: **Resource Geography of Maharashtra**

Modules	Teaching Hours	Credits
Module – I: Introduction	15	01
1.1 Location of Maharashtra		
1.2 Physiography		
1.3 Climate		
1.4 Drainage Pattern		
Module – II: Resources	15	01
2.1 Definition and Classification of resources		
2.2 Conservation and sustainable development of resources		
2.3 Role of resources in regional development		
Module – III: Mineral and power resources in Maharashtra	15	01
Importance, Distribution and Production of		
3.1 Manganese		
3.2 Coal		
3.3 Conventional Power Resources: Oil, Natural Gas, Hydroelectricity & Thermal power		
3.4 Non- conventional Power Resource – Solar and Wind		
Module – III: Water and Soil Resources in Maharashtra	15	01
4.1 Sources of irrigation and distribution		
4.2 Water Management		
4.3 Major soil types and their distribution		
4.4 Need of conservation and sustainable development of soil resources.		

References:

1. B. Arunchalm, Regional Geography of Maharashtra
2. B.D. Nag Choudhary, “Inhoduction to Enviroment Management” Inter Prind Mehata House, New Delhi.
3. Brucu Mitchell “Geography and resources analysis” John willey and sons, New York.
4. C.D. Deshpande, “Geography of Maharashtra” National book Trust of India, New Delhi.
5. Cutler L, Renwick H.L. Exploitation conservation and preservation : A Geographical perspective and natural resource use, Rowmon and Allanhed, Towata.
6. Govt. of Maharashtra “Economic development of Maharashtra.” (Maharashtra Economic Development Council)
7. Karve “Maharashtra – Land and People
8. Dixit K.R., “Maharashtra in Maps”

9. Matthews O.P., "Water resources Geography and Laow, Scientific Publishers, Jodhapur.
10. Deshpande, S.H. "Economy of Maharashtra"
11. खतीब के. ए., महाराष्ट्राचा भूगोल मेहला पब्लिशिंग हाऊस, पुणे
12. सावंत प्रकाश – महाराष्ट्राचा भूगोल, फडके प्रकाशन, कोल्हापूर
13. पाटील टी.पी. – महाराष्ट्राचा भूगोल
14. सवदी ए. बी – द मेगा स्टेट महाराष्ट्र, निराली प्रकाशन, पुणे
15. दास्ताने संतोष – महाराष्ट्र दास्ताने रामचंद्र आणि कंपनी, पुणे (2005)
16. देशपांडे चं. धु. – महाराष्ट्रचा भूगोल, अनुवादक मो. द. तावडे
17. सवदी ए.बी. – महाराष्ट्राचा भूगोल निराली प्रकाशन पुणे (1999)
18. दाते एस. पी. – महाराष्ट्राचा साधन संपत्तीचा भूगोल, नॅशनल बुक स्टेट ऑफ इंडिया, नवी दिल्ली
19. सामंत जयकुमार – पर्यावरण शास्त्रा शिवाजी विद्यापीठ प्रकाशन कोल्हापूर
20. Resource Geography of Maharashtra (IDS) – Distance Education Department, Shivaji

Semester – IV, General Elective – II

(i) GE-II (Paper – II)

(ii) Title of Paper : Resource Geography of Maharashtra

Modules	Teaching Hours	Credits
Module – I Forest Resources in Maharashtra	15	01
1.1 Importance of forest resources		
1.2 Types and Distribution of forest		
1.3 Deforestation causes and effects		
1.4 Conservation of forest resource		
Module – II Animal Husbandry and Fisheries in Maharashtra	15	01
2.1 Types of animals and their distribution		
2.2 Animals production (milk, meat, skin, hide, wool, eggs)		
2.3 Conservation of Animals		
2.4 Types of fisheries and their distribution		
2.5 Conservation of fisheries		
Module – III Human resource in Maharashtra	15	01
3.1 Man as a resource		
3.2 Growth of population		
3.3 Distribution of population		
3.4 Composition of population		
3.5 Population pressure on resources in Maharashtra		
Module – IV Practical (Theory only)	15	01
Resource survey		
4.1 Water		
4.2 Soil		
4.3 Population		
4.4 Animal		

References:

1. B. Arunchalm, Regional Geography of Maharashtra

2. B.D. Nag Choudhary, "Introduction to Environment Management" Inter Prind Mehata House, New Delhi.
3. Bruce Mitchell "Geography and resources analysis" John Willey and sons, New York.
4. C.D. Deshpande, "Geography of Maharashtra" National book Trust of India, New Delhi.
5. Cutler L, Renwick H.L. Exploitation conservation and preservation : A Geographical perspective and natural resource use, Rowmon and Allanhed, Towata.
6. Govt. of Maharashtra "Economic development of Maharashtra." (Maharashtra Economic Development Council)
7. Karve "Maharashtra – Land and People
8. Dixit K.R., "Maharashtra in Maps"
9. Matthews O.P., "Water resources Geopgraphy and Laow, Scientific Publishers, Jodhapur.
10. Deshpande, S.H. "Economy of Maharashtra"
11. खतीब के. ए., महाराष्ट्राचा भूगोल मेहला पब्लिशिंग हाऊस, पुणे
12. सावंत प्रकाश – महाराष्ट्राचा भूगोल, फडके प्रकाशन, कोल्हापूर
13. पाटील टी.पी. – महाराष्ट्राचा भूगोल
14. सवदी ए. बी – द मेगा स्टेट महाराष्ट्र, निराली प्रकाशन, पुणे
15. दास्ताने संतोष – महाराष्ट्र दास्ताने रामचंद्र आणि कंपनी, पुणे (2005)
16. देशपांडे चं. धु. – महाराष्ट्राचा भूगोल, अनुवादक मो. द. तावडे
17. सवदी ए.बी. – महाराष्ट्राचा भूगोल निराली प्रकाशन पुणे (1999)
18. दाते एस. पी. – महाराष्ट्राचा साधन संपत्तीचा भूगोल, नॅशनल बुक स्टेट ऑफ इंडिया, नवी दिल्ली
19. सामंत जयकुमार – पर्यावरण शास्त्रा शिवाजी विद्यापीठ प्रकाशन कोल्हापूर
20. Resource Geography of Maharashtra (IDS) – Distance Education Department, Shivaji

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography (Cartography) IDS

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B.A. Part II
Geography
GENERIC ELECTIVE

Sr. No.	Class	Semester	Old Title	Title of the Course New
1	B.A. II	III	Cartography Paper – I	Cartography Course – I
2	B.A. II	IV	Cartography Paper – II	Cartography Course – II

Abbreviation: G.E. – Generic Elective

B. A. Part - II
Cartography Course-I GE
June 2019 onwards

1. **TITLE** : Subject – CARTOGRAPHY (GE)
Optional under the Faculty of Science

2. **YEAR OF IMPLEMENTATION**:- Revised Syllabus will be implemented from June 2019 onwards.

3. PREAMBLE:-

Cartography is the most important part of Geography. The present syllabus of this paper includes nature, scope, historical development and importance of cartography, study of maps and their types, map projections, surveying, S.O.I. Topomaps, I.M.D. weather maps, and introduction to modern techniques like computer, G.I.S., G.P.S. etc. In the process of development of science and technology, the changing nature of subject will make aware to the students about the modern technologies used in cartography. This will further help to improve the use of cartographic techniques and methods in teaching-learning and research work.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER :

- 1) To introduce the students with the importance of cartography.
- 2) To enable the students to understand map, concept of projection and concept of scale.
- 3) To give basic information to the students about S.O.I. top maps and I.M.D. weather maps.
- 4) To familiarize the students with the concept of surveying and different cartographic techniques and methods used for representation of demographic and physiosocio-economic database.
- 5) To aware the students with the modern technology like computer, GIS, GPS etc and their advantages over conventional cartography

5. DURATION

- The course shall be a full time course
- The duration of course shall be of one year (Two semesters, Sem. – III & IV)

6. **PATTERN** Pattern of Examination will be Semester

7. **FEE STRUCTURE** As per the Shivaji University rules ; and as applicable to regulari)

9. **ELIGIBILITY FOR ADMISSION** : As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

10. **MEDIUM OF INSTRUCTION** :

The medium of instruction shall be in English or Marathi. (as applicable to the course/programme concerned.)

11. **STRUCTURE OF COURSE**- ---

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SECOND YEAR B. A. ----- (NO. OF PAPERS FOUR)

SEMESTER THIRD

Paper No.	Title	Marks
GE I	Cartography-I	50

SEMESTER FOURTH

Paper No.	Title	Marks
GE II	Cartography-II	50

12. SCHEME OF TEACHING AND EXAMINATION

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

SECOND YEAR

Scheme of Teaching and Examination

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Cartography Course - I	04	04	00	04	50	00	50
2	Cartography Course - II	04	04	00	04	50	00	50

13. SCHEME OF EXAMINATION :-

- The examination shall be conducted at the end of each semester
- The Theory paper shall carry 50 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of semester Examination of 50 marks.

- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. **STANDARD OF PASSING:-** As Prescribed under rules & regulation for each degree/programme.

15. **NATURE OF QUESTION PAPER AND SCHEME OF MARKING :-**

(Unit-wise weightage of marks should also be mentioned)

Semester III	Marks
Qus : 1) Objective Type Question (Multiple Choice)	05
Qus : 2) Short Notes (Any three out of five)	15
Qus: 3) Description Type Question (Any two out of three)	20
Semester IV	
Qus : 1) Objective Type Question (Multiple Choice)	05
Qus : 2) Short Notes (Any three out of five)	15
Qus: 3) Broad Ans. Type Question (Any two out of three)	20

16. **EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Title of New Paper	
1	Cartography Paper I & II	Semester- III	
		Course - I	Cartography - I
		Semester- IV	
		Course - II	Cartography - II

17. SPECIAL INSTRUCTIONS , IF ANY.

**NEW/REVISED CBCS PATTERN SYLLABUS FOR
B.A. (Part II) Geography GENERIC ELECTIVE
(Introduced from June 2019 onwards)
Semester – III**

(i) GE-1 (Course - I)

(ii) Title of Paper: **Cartography-I**

	Module	Teaching Hours	Credits
Module – I	Introduction to Cartography	15	01
	1.1 Meaning and Definitions of Cartography		
	1.2 Nature and Scope of Cartography		
	1.3 Branches of Cartography		
	1.4 Importance of Cartography		
Module – II	Geodetic and Plane Surveying	15	01
	2.1 Definition, Meaning and Objectives of Survey		
	2.2 Geodetic surveying and Plane Surveying		
	2.3 Plane Table Survey – Equipment and Procedure		
	2.4 Digital Laser Distance Meter – Survey Procedure		
Module -III	Map Projection	15	01
	3.1 Definition and Necessity of Map Projection		
	3.2 Classification of Map Projections according to the Methods of Construction		
	3.3 Mercator's Projections: Properties and Uses		
	3.4 Choice of Map Projection		
Module – IV	Representation of the Earth's Surface	15	01
	4.1 Globe and System of Coordinates		
	4.2 Map: Definition, Elements and Methods of expression Of scale of map		
	4.3 Types of maps by scale and purpose		
	4.4 Enlargement and Reduction of Map by Square Method		

**NEW/REVISED CBCS PATTERN SYLLABUS FOR
B.A. (Part II) Geography GENERIC ELECTIVE
(Introduced from June 2019 onwards)
Semester – IV**

(i) GE-II (Course – II)

(ii) Title of Paper : Cartography -II

	Modules	Teaching Hours	Credits
Module – I	Methods of Representation of Data by Graphs And Diagrams	15	01
1.1	Line Graphs		
1.2	Bar Graphs		
1.3	Pie Diagram		
1.4	Population Pyramid		
Module – II	Methods of Representation of Data by Distributional Maps	15	01
2.1	Choropleth Method		
2.2	Isopleth Method		
2.3	Dot Method		
2.4	Traffic-Flow Cartogram		
Module -III	Introduction to Topographical Maps	15	01
3.1	Topographical Maps: Definition, Marginal Information		
3.2	Use of Conventional Signs, Symbols and Colours in S.O.I. Topographical Maps		
3.3	Methods of Representation of relief in S.O.I. Topographical Maps		
3.4	Types of Slopes by Contours		
Module – IV	Introduction to Geographical Information System and Global Positioning System	15	01
4.1	Geographical Information System: Definition, Elements and Functions		
4.2	Application of Geographical Information System		
4.3	Global Positioning System: Introduction, Definition and Segments		
4.4	Application of Global Positioning System		

References:

1. Bygoot, J. : An Introduction to Mapwork and Practical Geography. University Tutorial, London, 1964
2. Kanetkar, T.P. and Kulkarni S.V.: Surveying and Levelling (Part I & II.) A.V.G. Prakashan, Poona, 1965.
3. Mishra R.P and Ramesh A. : Fundamentals of Cartography. Concept Publ. Com., New Delhi, 2000.
4. Monkhouse, F. J. and Wilkinson, H. R.: Maps and Diagrams. Mathuen, London, 1971.
5. Raisz, E.: Principles of Cartography. McGraw Hill Book Com., Inc, New York 1962.
6. Robinson, A.H. and Sale, R. D.: Elements of Cartography. John Wiley and Sons, Inc, New York 1969
7. Sarkar, A.K. : Practical Geography : A Systematic Approach. Oriental Longman, Calcutta, 1997.
8. Singh, L.R. and Singh, R.: Mapwork and Practical Geography. Allahabad, 1973.
९. आहिराव, डी.वाय. व करंजखेले, इ.के., : प्रात्यक्षिक भूगोल, सुदर्शन, नाशिक २००२
१०. गाताडे डी.जी.व अडवितोट, एस.सी.: प्रात्यक्षिक भूगोल, अक्षरलेणं प्रकाशन, सोलापूर २००८
११. कुंभार, अर्जुन : प्रात्यक्षिक भूगोल, सुमेरु प्रकाश, डोंबिवली पूर्व, १९९४
१२. शिंदे, एस. बी. : नकाशाशास्त्रा प्रात्यक्षिक भूगोल, फडके प्रकाशन, कोल्हापूर, २००२
13. Cartography – Distance Education Department, Shivaji University, Kolhapur, 2002.

NOTE :

- i) The details of field work, seminar, Group Discussion and Oral examination be given wherever necessary.
- ii) General/Specific instructions for Laboratory safety should be given wherever necessary.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography (RGT) IDS

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B.A. Part-II Geography
Sem. – III, Paper - I
Tourism Geography (GE)
Syllabus to be implemented from June - 2019 onwards.

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – CONCEPTS IN TOURISM GEOGRAPHY

Optional/Compulsory/Additional/General Elective under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented
from June 2019 onwards.

3. PREAMBLE:-

All of us are part and parcel of the earth's environment. We will act as responsible citizens and participate proactively in all tourism activity to preserve the natural and cultural environment and leave for future generations in its nativeness.

4. NERAL OBJECTIVES OF THE COURSE/ PAPER/:

(As applicable to the Degree /Subject- Paper concerned)

- 1) To familiarize the students with aspects of tourism which have a relation with the subject matter of Geography
- 2) To orient the students to the logistics of tourism industry and the role of tourism in regional development.
- 3) To understand the impact of tourism on physical and human environments.
- 4) To familiarize the students with local, regional and national tourism.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tuition Fee & Laboratory Fee, if any.)]

9. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

10. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

11. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER THIRD

Paper No.

IDS – Paper I Concepts of Tourism Geography

Title Marks

50

12. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject or Paper	Teaching Scheme (Hrs./Week)				Examination Scheme (Marks)	
		L	T	P	Total	Theory	Total
1	Concepts in Tourism Geography (Sem. III)	4	4	-	4	50	50

13. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks (as applicable to the course).
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

15. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

Common Nature of Paper as per Social Sciences Faculty

**16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS
OF PAPERS- (FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Introduction to Tourism Geography	I	Concepts in Tourism Geography	I

17. SPECIAL INSTRUCTIONS, IF ANY – Nil

**NEW/REVISED SYLLABUS FOR
B. A. Part-II Geography
(Introduced from June 2019 onwards)
Semester - III**

(i) Paper –I

(ii) Title of Paper :- CONCEPTS IN TOURISM GEOGRAPHY

(iii) Specific Objectives:- -----

(iv) A brief note :- (On expected level of study from examination and assessment point of view):- -----

Module	No. of Credits
Module I: INTRODUCTION TO TOURISM GEOGRAPHY	01
1.1 Definition of Tourism and Tourist	
1.2 Nature of Tourism Geography	
1.3 Scope of Tourism Geography	
1.4 Historical development of Tourism	
1.5 Significance of Tourism Geography	
Module II: Component of Tourism	01
2.1 Geographical components	
2.2 Social components	
2.3 Cultural components	
2.4 Other components	
Module III: Classification and Recent Trends in Tourism	01
3.1 Classification on the basis of Nationality, Time, Number of tourist, Objectives, Transportation, Season, and Nature of Tourism.	
3.2 Recent trends in Tourism	
Module IV: Impact of Tourism	01
4.1 Economic impact	
4.2 Socio-Cultural impact	
4.3 Impact on Environment	
4.4 Sustainable development of Tourism	

REFERENCES

1. Bhatia A.K. : International Tourism
2. Bhatia A.K. : Tourism Development
3. Dev Manoj : India – A Tourist Paradise
4. Dhar Pramath : Development of Tourism and Travel Industry
5. Gupta V.N. : Tourism in India
6. Negi Jagmohan : Tourism Development and Resource Conservation 28
7. Pearce Douglas : Tourism Development
8. Robinson R. : Geography of Tourism
9. Sharma K.C. : Tourism : Policy, Planning strategy.
10. Seth Pran : Endless Tourism Movement
11. Sinha P.C. : Tourism Marketing
12. Singh Sharni : Principles of Indian Tourism
13. Singh S.N. : Geography of Tourism and Recreation
14. Singh Ratandeep : Tourism Today Vol. 1
Tourism Today Vol. 2
Tourism Today Vol. 3
- 15- शिंदे एस. बी. : पर्यटन भूगोल
- 16- धारपुरे व्ही. टी. : पर्यटन भूगोल, पिंपळापुरे पुब्लिशर्स, नागपूर.
- 17 Geography of Tourism – Distance Education Department, Shivaji University, Kolhapur

NOTE :

- i) The details of field work, seminar, Group Discussion and Oral examination be give wherever necessary.
- ii) General/Specific instructions for Laboratory safety should be given wherever necessary.

धारपुरे व्ही. टी. : पर्यटन भूगोल, पिंपळापुरे पुब्लिशर्स, नागपूर.

B.A. Part-II Geography
Sem. – IV, Paper - II
Tourism Geography (GE)
Syllabus to be implemented from June - 2019 onwards.

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – DEVELOPMENT AND PLANNING OF TOURISM

Optional/Compulsory/Additional/ under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented
from June 2019 onwards.

3. PREAMBLE:-

All of us are part and parcel of the earth's environment. We will act as responsible citizens and participate proactively in all tourism activity to preserve the natural and cultural environment and leave for future generations in its nativeness.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER/:

(As applicable to the Degree /Subject- Paper concerned)

- 1) To familiarize the students with aspects of tourism which have a relation with the subject matter of Geography
- 2) To orient the students to the logistics of tourism industry and the role of tourism in regional development.
- 3) To understand the impact of tourism on physical and human environments.
- 4) To familiarize the students with local, regional and national tourism.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tuition Fee & Laboratory Fee, if any.)]

9. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

10. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

11. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER THIRD

Paper No.

Title Mark

– Paper II DEVELOPMENT AND PLANNING OF TOURISM

50

12. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject or Paper	Teaching Scheme (Hrs./Week)				Examination Scheme (Marks)	
		L	T	P	Total	Theory	Total
1	Development and Planning of Tourism (Sem. IV)	4	4	-	4	50	50

13. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks (as applicable to the course).
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

15. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

**16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS
OF PAPERS- (FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Introduction to Tourism Geography	II	Development and Planning of Tourism	II

17. SPECIAL INSTRUCTIONS, IF ANY – Nil

**NEW/REVISED SYLLABUS FOR
B. A. Part-II Geography (GE)
(Introduced from June 2019 onwards)
Semester - IV**

(i) Paper –II

(ii) Title of Paper :- DEVELOPMENT AND PLANNING OF TOURISM

(iii) Specific Objectives:- -----

(iv) A brief note :- (On expected level of study from examination and assessment point of view):- -----

Module	No. of Credits
Module I: Development and Planning of Tourism in India	01
1.1 Tourism in ancient period	
1.2 Tourism in modern period	
1.3 Role of tourism in national economy	
1.4 Tourism planning in India	
Module II: Tourism Centers in India	01
2.1 Natural tourism centers in India	
2.2 Religious tourism centers in India	
2.3 Cultural tourism centers in India	
2.4 Historical tourism centers in India	
Module III: Development and Planning of Tourism in Maharashtra	01
3.1 Development of tourism in Maharashtra	
3.2 Planning of tourism in Maharashtra	
Module IV: Tourism Centers in Maharashtra	01
4.1 Natural tourism centers in Maharashtra	
4.2 Religious tourism centers in Maharashtra	
4.3 Cultural tourism centers in Maharashtra	
4.4 Historical tourism centers in Maharashtra	

REFERENCES

1. Bhatia A.K. : International Tourism
2. Bhatia A.K. : Tourism Development
3. Dev Manoj : India – A Tourist Paradise
4. Dhar Pram Nath : Development of Tourism and Travel Industry
5. Gupta V.N. : Tourism in India

6. Negi Jagmohan : Tourism Development and Resource Conservation 28

7. Pearce Douglas : Tourism Development

8. Robinson R. : Geography of Tourism

9. Sharma K.C. : Tourism : Policy, Planning strategy.

10. Seth Pran : Enlessful Tourism Manament

11. Sinha P.C. : Tourism Marketing

12. Singh Shawni : Principles of Indian Tourism

13. Singh S.N. : Geography of Tourism and Recreation

14. Singh Ratandeep : Tourism Today Vol. 1

Tourism Today Vol. 2

Tourism Today Vol. 3

15- शिंदे एस. बी. : पर्यटन भूगोल

16- घारपुरे व्ही. टी. : पर्यटन भूगोल, पिंपळापुरे पुब्लीशर्स, नागपूर.

17 Geography of Tourism – Distance Education Department, Shivaji University, Kolhapur

NOTE :

i) The details of field work, seminar, Group Discussion and Oral examination be give wherever necessary.

ii) neral/Specific instructions for Laboratory safety should be given wherever necessary.

घारपुरे व्ही. टी. : पर्यटन भूगोल, पिंपळापुरे पुब्लीशर्स, नागपूर.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography Paper- III

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. A. Part - II
DSC (Discipline Specific Core Course) - III Geography
June 2019 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – SOIL GEOGRAPHY

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2019 onwards.

3. PREAMBLE:-

Soil Geography which is the most important and comparatively neglected branch of Physical Geography. But after 1960 this branch of Geography becomes popular due to its own significance in the World. Therefore, it has been introduced to B. A. Part-II. In this course the fundamental as well basic concepts and knowledge of Soil Geography have been included. The present syllabus of this course includes nature, scope, branches, significance of Soil Geography and its relevance to pedology; factors of soil formation, soil formation process, soil profile, soil properties, soil: characteristics and genetic classification, soil degradation, soil erosion and conservation of soil; physical and chemical properties of soils, classification of soils and soil management.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER/:

(As applicable to the Degree /Subject- Paper concerned)

- i) Students should know soil geography which is the fundamental branch of Physical Geography.
- ii) To familiarize the students with the basics and fundamental concepts of soil geography.
- iii) With this study, students understand soil is key resource for the development of any country.
- iv) Students are aware about process of soil formation and development as well as soil properties.
- v) Students should know classification, characteristics and distribution of soils.
- vi) Students should know the concepts related to soil degradation and erosion, causes and controlling factors of soil erosion, conservation of soils.
- vii) Students should know the concept, need and methods soil of management.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)]

8. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FOURTH

Paper No.

Paper III, Soil Geography

Title Marks

50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Practical	Total
1	Soil Geography	04	04	-	04	50	-	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.

- The Theory paper shall carry 50 marks (as applicable to the course).
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

Common Nature of Paper as per Social Sciences Faculty

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Soil Geography	III	Soil Geography	III

16. SPECIAL INSTRUCTIONS, IF ANY – Nil

**NEW/REVISED SYLLABUS FOR
B. A. Part-II Geography
(Introduced from June 2019 onwards)
Semester - III**

(i) DSE –III

(ii) Title of Paper: - SOIL GEOGRAPHY

(iii) Specific Objectives: - -----

(iv) A brief note: - (On expected level of study from examination and assessment point of view):- -----

Module	Teaching Hours	Credits
Module I: Basics of Soil Geography	12 Lectures	01
1.1 Definition, Nature and Scope of Soil Geography		
1.2 History of Soil Geography and Pedology		
1.3 Significance of Soil Geography		
Module II: Soils: Formation and Properties	18 Lectures	01
2.1 Jenny's Factorial Model of Soil Formation: Parent Material, Biotic, Climatic, Relief and Time factor.		
2.2 Process of Soil Formation: Physical, Biotic and Chemical.		
2.3 Physical Properties of Soils: Morphology, Texture, Structure, Water, Air and Temperature.		
2.4 Chemical Properties of Soils: P^H , Organic Matter, NPK (Nitrogen, Phosphorous and Potassium).		
Module III: Soils: Classifications and Distribution	18 Lectures	01
3.1 Genetic Classification of Soils.		
3.2 Soil Characteristics and Major Soils Distribution in Maharashtra.		
3.3 Soil Degradation: Concept, Causes, Consequences and Measures		
Module IV: Practical (Theory Only)	12 Lectures	01
4.1 Soil Profile		
4.2 Soil Sample: Tools		
4.3 Soil Analysis: Saline and Alkaline		
4.4 Vermicompost Process		

REFERENCES

1. Backman, H.O and Brady, N.C.(1960.)The Nature and Properties of Soils, Mc Millan NewYork.
2. Bennet, Hugh H.: Soil Conservation, McGraw Hill, New York .
3. Bunting, B.T.(1973) The Geography of Soils, Hutchinson, London.

4. Chairas, D. D., Reganold, J. P., and Owen, O. S., (2002): National Resource Conservation and Management for a Sustainable Future, 8th edition, Prentice Hall, Englewood Cliffs.
5. Clarke G.R.(1957) Study of the Soil in the Field, Oxford University Press, Oxford.
6. Daji, J. A., (1970): A Text Book of Soil Science, Asia Publishing House, London.
7. Foth H.D. and Turk, L.M.(1972) Fundamentals of Soil science, John Wiley, New York.
8. Govinda Rajan, S.V. and Gopala Rao, H.G.(1978) Studies on Soils of India Vikas, New Delhi.
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11. Morgan, R. P. C., (1995): Soil Erosion and Conservation, 2nd edition, Longman, London.
12. Nye, P.H. and Greene, D.J.(1960)The Soil under Shifting Cultivation Commonwealth Bureau of Soil Science, Technical Communication, No. 51; Harpenden, England.
13. Plaster, E. J., (2009): Soil Science and Management, Cengage Learning, Boston.
14. Raychoudhuri, S.P., (1958): Soils of India, ICAR, New Delhi.
15. Russell, Sir Edward J.:(1961) Soil Conditions and Plant Growth, Wiley, New York.
16. Sarkar, D., (2003): Fundamentals and Applications of Pedology, Kalyani Publishers, New Delhi.
17. Sehgal, J., (1996): Pedology: Concepts and Applications, Kalyani Publishers, New Delhi.
18. खतिब के. ए., (२०१४): मृदा भूगोल, संजोग प्रकाशन, कदमवाडी, कोल्हापूर-०३.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography Paper-IV

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. A. Part - II
DSC (Discipline Specific Core Course) - IV Geography June 2019 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – RESOURCE GEOGRAPHY

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2019 onwards.

3. PREAMBLE:-

Resource Geography is a major and developing branch of Economic Geography. The world countries are trying to make overall development with blindly utilizing different resources. The growing population exerts its pressure on present resources which generates various problems in front of countryside. The present syllabus of this paper includes Definition, Scope, concept, classification and significance of Resource Geography. It also includes major resources such as water, forest, energy and human resources with its distribution, utilization and problems. Newly evolved concept sustainable development is also studied with said resources. This paper (Resource Geography) will be helpful to the students of B. A. part-II to think over resources for their and next generations features.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER:

- To understand the concept and classification of Resources.
- To examine the major resources (water, forest, energy and human) with their distribution, utilization and problems.
- To study the sustainable resource development.
- The course also aims to familiarize the students with cartographic techniques.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester

7. FEE STRUCTURE:-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)]

8. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FOURTH

Paper No.

Paper VI, Resource Geography

Title Marks

50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Practical	Total
1	Resource Geography	04	04	-	04	50	-	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks (as applicable to the course).

- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

Common Nature of Paper as per Social Sciences Faculty

**15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS
OF PAPERS- (FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Human Geography	IV	Resource Geography	IV

16. SPECIAL INSTRUCTIONS, IF ANY – Nil

NEW/REVISED SYLLABUS FOR
B.A. (Part II) Sem - IV
 (Introduced from June 2019 onwards)

(i) DSE – IV

(ii) Title of Paper: Resource Geography

(iii) Specific Objectives:-

(iv) A brief note:- (On expected level of study from examination and assessment point of view) :- -----

Module	Teaching Hours	Credits
Module I: Introduction to Resource Geography	10 Lectures	01
1.1 Definition and Scope of Resource Geography		
1.2 Resource: Concept and Classification		
1.3 Importance of Resource Geography		
Module II: Major Resources	20 Lectures	01
2.1 Water Resources: Distribution, Utilization and Problems		
2.2 Forest Resources: Distribution, Utilization and Problems		
2.3 Energy Resources: Distribution, Utilization and Problems		
2.4 Human Resources: Distribution, Utilization and Problems		
Module III: Sustainable Resource Development	18 Lectures	01
3.1 Concept of Sustainable Resource Development		
3.2 Sustainable Natural Resource Development: Water, Forest and Energy		
3.3 Sustainable Human Resource Development		
Module IV: Practical (Theory Only)	12 Lectures	01
4.1 Proportional Circle		
4.2 Choropleth Map		
4.3 Dot Map		
4.4 Isopleth Map		

References :

1. Cutter S. N., Renwich H. L., and Renwick W., (1991): Exploitation, Coservation, Preservation: A Geographical Perspective on Natural Resources Use, John Wiley and Sons, New York.

2. Gadgil M. and Guha R., (2005): The use and Abuse of Nature: Incorporating This Fissured Land: An Ecological History of India and Ecology and Equity, Oxford University Press, USA.
3. Holechek J. L. C., Richard A., Fisher J. T. and Valdez R., (2003): Natural Resources: Ecology, Economics and Policy, Prentice Hall, New Jersey.
4. Jones G. and Hollier G., (1997): Resources, Society and Environmental Management, Paul Chapman, London.
5. Klee G., (1991): Conservation of Natural Resources, Prentice Hall, Englewood.
6. Mather A. S. and Chapman K., (1995): Environmental Resources, John Wiley and Sons, New York.
7. Mitchell B., (1997): Resource and Environmental Management, Longman Harlow, England..
8. Owen S. and Owen P. L., (1991): Environment, Resources and Conservation, Cambridge University Press, New York.
9. Rees J., (1990) Natural Resources: Allocation, Economics and Policy, Routledge, London.
- 90th Zrlu Senyucel, Managing the Human Resource in the 21st Century.
- 99th George W., B., and Scolt, (2013): Principles of Human Resource Management, Cengage.
12. Chiras, D.D., Reganold, J.P. 2009. Natural Resource Conservation: Management for a Sustainable Future, 10th ed, Pearson.
13. Gregory, D., Johnston, R., Pratt, G., Watts, M., Whatmore, S. (Eds) 2009. The Dictionary of Human Geography, 5th ed, Wiley.
14. Mather, A.S., Chapman, K. 1995. Environmental Resources, John Wiley and Sons.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography Paper-V

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. A. Part - II
DSC (Discipline Specific Core Course) - V Geography
June 2019 onwards
Oceanography

A] Ordinance and Regulations:- (As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of—Arts.**

1. TITLE: Subject – OCEANOGRAPHY

Optional under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2019 onwards.

3. PREAMBLE:-

Oceanography which is the most important and comparatively neglected branch of Physical Geography has been introduced to B.A. Part II. In this course the fundamental as well basic concepts and knowledge of oceanography have been included. The present syllabus of this course includes definition nature, scope, history and significance of Oceanography and its relevance to the earth and atmospheric sciences; properties and dynamics of oceanic water, Oceanic currents and their influence and applied oceanography.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER

- i) Students should know oceanography is the fundamental branch of Physical Geography.
- ii) To familiarize the students with the basic and fundamental concepts of oceanography.
- iii) With this study, students understand marine is key resource for the development of any country.
- iv) Students should know physical and chemical properties of oceans.
- v) Students should know types of oceanic currents and currents of Atlantic, Pacific and Indian oceans.
- vi) Students should know hypsographic curve, wind rose, iso-salinity lines and isotherms.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)]

9. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying (i.e. Entrance Examination) examination, if any.

10. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the Course / programme concerned.)

11. STRUCTURE OF COURSE- 40+10=50

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Practical	Total
1	Oceanography	04	04	-	04	50	-	50

12. SCHEME OF TEACHING AND EXAMINATION:-

[The scheme of teaching and examination should be given as applicable to the course / paper concerned.]

SECOND YEAR / SEMESTER – IV

Scheme of Teaching and Examination

13. SCHEME OF EXAMINATION:-

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks (as applicable to the course)
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING:-

[As Prescribed under rules & regulation for each degree/programme.]

15. NATURE OF QUESTION PAPER

NATURE OF QUESTION PAPER AND SCHEME OF MARKING:-

Common Nature of Paper as per Social Sciences Faculty

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS - (FOR REVISED SYLLABUS)

Sr. No.	Title of Old paper	Old Paper No.	Title of New Paper	New Paper No.
1.	Oceanography	V	Oceanography	V

**NEW/REVISED SYLLABUS FOR
B. A. (Part II) Geography
(Introduced from June 2019 onwards)
Semester - V**

(i) DSE – V

(ii) Title of Paper :- OCEANOGRAPHY

(iii) Specific Objectives:- -----

(iv) A brief note :- (On expected level of study from examination and assessment point of view):- -----

Module	Teaching Hours	Credits
1.0 Introduction to Oceanography	15 Lectures	01
1.1 Definition, Nature and Scope of Oceanography		
1.2 Oceanography and Physical Sciences		
1.3 Branches of Oceanography		
1.4 Significance of Oceanography		
2.0 Properties and Dynamics of Ocean	15 Lectures	01
2.1 Oceanic Temperature: Factors affecting on ocean temperature and Distribution of oceanic temperature		
2.2 Salinity of Ocean: Factors affecting on Oceanic salinity and Horizontal distribution of oceanic salinity		
2.3 Oceanic Currents: Types of Oceanic currents, Responsible factors for origin of ocean currents and Ocean currents of the Pacific, Atlantic and Indian Ocean		
3.0 Applied Oceanography	15 Lectures	01
3.1 Ocean or Marine deposits: Sources and Classification		
3.2 Ocean Resources – Biotic- Mineral and Energy Resources		
3.4 Ocean Pollution – Causes, Effects and Measures		
4.0 Practical's (Theory Only)	15 Lectures	01
4.1 Hypsographic Curve		
4.2 Wind rose		
4.3 Isohalines		
4.4 Isotherms		

References

1. Anikouchine, W.A. and Sternberg, R.W. (1973) The World Oceans - An Introduction to Oceanography, Englewood Cliffs, N.J.
2. Grald, S. (1980) General Oceanography - An Introduction, John Wiley & Sons, New York.
3. Garrison, T. (1998) Oceanography. Wadsworth.com. USA .
4. King, C.A.M. (1972) Beaches and Coasts, E. Arnold, London.
5. King, C.A.M. (1975) Oceanography for Geographers E. Arnold, London .
6. Sharma, R.C. Vatel M. (1986) Oceanography for Geographers, Chetnya Publishing House, Allahabad.
7. Shepard, F.P. (1948) Submarine Geology, Harper & Sons, New York.
8. Thurman, H.B. (1984) Introductory Oceanography, Charles Webber E. Merrill Publishing Co.
9. Weisberg, J. and Howard (1976) Introductory Oceanography, McGraw-Hill Book Co., New York.
10. Davis, Richard J.A. (1986) "Oceanography - An Introduction to the Marine Environment". Wm. C. Brown Iowa.
11. Duxbury, C.A and Duxbury B. (1996) An Introduction to the world's Oceans - C. Brown. Iowa, 2nd ed.
12. Garrison, T. (2001) "Oceanography - An Introduction to Marine Science, Books/Cole, Pacific Grove, USA.
13. Gross, M. Gran (1987) Oceanography: A View of the Earth , Prantice - Hall Inc. New Jersey.
14. Sharma, R.C. (1985) " The Oceans " Rajesh N. Delhi.
15. Ummerkutty, A.N.P. (1985) Science of the Oceans and Human life, NBT, New Delhi .
16. Denny, M. (200) How the Ocean works : An introduction to Oceanography, Princeton University Press, New Jersey
17. Thurman, H. B.: Introductory Oceanography, Charles Webber E. Merrill publishing

18 Weisberg J. and Howard: Introductory Oceanography, McGraw- Hill Book ,New York.

१९ .प्रा. देशमुख , सावरकर, भेंडकर (२००५): हवामानशास्त्र व सागरशास्त्र , विद्या प्रकाशन, नागपूर.

२०. पाध्ये अशोक (१९९८): सागरविज्ञान , नशनल बुक टष्ट इंडिया , नवी दिल्ली.

२१. घारपुरे , पवार (१९९८): सागरविज्ञान, पिंपळापुरे अंड कं. पब्लिशर्स , नागपूर.

२२. सवदी , कोळेकर (२००४): हवामानशास्त्र व सागरशास्त्र , निराली प्रकाशन , पुणे.

२३ . श्री. दाते व सौ. दाते (१९७०): प्राकृतिक भूगोल , रावील पब्लिकेशन, सातारा.

२४. जाधव बी. एस., जाधव के. आर., पाटील ए. बी., (२०१४): सागरशास्त्र , नाग नालंदा प्रकाशन, इस्लामपूर .

२५. कोलते, पुराणिक कुबडे (१९९०) : हवामानशास्त्र व सागरविज्ञान, विद्या प्रकाशन, नागपूर.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

BA Part-II

Geography Paper-VI

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. A. Part - II
DSC (Discipline Specific Core Course) - VI Geography June 2019 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – AGRICULTURAL GEOGRAPHY

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2019 onwards.

3. PREAMBLE:-

Agricultural Geography is a major and developed branch of Economic Geography. Being a dominant economic activity it has a great importance in the developing world. The present syllabus of this paper includes Definition, Nature, Scope and significance of Agricultural Geography. It also includes determinants of Agriculture and Agricultural systems of the world. Agricultural regionalization, Green revolution and the modern technology used in agriculture are also of vital importance. To provide a strong theoretical base, models and theories of agricultural land use theories of Von Thune's is also incorporated. This paper of Agricultural Geography will be helpful to the students of B. A. Part-II to sustainable agricultural development.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER:

- To understand the concept and development of Agriculture.
- To examine the role of agricultural determinants towards the changing cropping pattern.
- To study the Green Revolution.
- The course also aims to familiarize the students with the Agricultural concepts and modern technologies used in Agriculture.

5. DURATION

- **The course shall be a full time course.**
- **The duration of course shall be of Three years, as applicable to the respective degree.**

6. PATTERN:-

Pattern of Examination will be Semester

7. FEE STRUCTURE:-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)]

8. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FOURTH

Paper No.

Paper V Soil Geography

Title Marks

50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Practical	Total
1	Agricultural Geography	04	04	-	04	50	-	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks (as applicable to the course).
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.

- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

Common Nature of Paper as per Social Sciences Faculty

**15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS
OF PAPERS- (FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Agricultural Geography	VI	Agricultural Geography	VI

16. SPECIAL INSTRUCTIONS, IF ANY – Nil

NEW/REVISED SYLLABUS FOR
B.A. (Part II) Sem - IV
 (Introduced from June 2019 onwards)

(i) DSE – VI

(ii) Title of Paper: Agricultural Geography

(iii) Specific Objectives:-

(iv) A brief note:- (On expected level of study from examination and assessment point of view) :- -----

Module	Teaching Hours	Credits
Module I: Introduction to Agricultural Geography	12 Lectures	01
1.1 Definition, Nature, Scope and Significance of Agricultural Geography		
1.2 Evolution of agriculture: Ancient, Medieval and Modern Period		
1.3 Determinants of Agriculture: Physical and Human (economic, social, cultural, political and administrative)		
Module II: Agriculture: Systems and Land-use Theory	18 Lectures	01
2.1 Major Agricultural Systems: Nomadic Herding, Livestock Ranching, Shifting Cultivation, Intensive Subsistence Farming, Commercial Farming and Horticulture		
2.1 Von Thunen's Theory of Agricultural land-use		
Module III: Regionalization, Problems and Modern Concepts in Agriculture	18 Lectures	01
3.1 Methods of Agricultural Regionalization: Crop Combination and Crop Diversification		
3.2 Agricultural Problems: Physical and Non-Physical (Economic, Social, Cultural, Political and Administrative)		
3.3 Sustainable Agriculture		
Module IV: Practical (Theory Only)	12 Lectures	01
4.1 Line Graphs		
4.2 Bar Graphs		
4.3 Divided Circle		
4.4 Proportional Square		

References :

1. Bayliss Smith, T.P. : The Ecology of Agricultural Systems. Cambridge University Press, London, 1987
2. Berry, B.J.L. et. al. : The Geography of Economic Systems. Prentice Hall, New York, 1976

3. Brown, L.R. : The Changing World Food Prospects – The Nineties and Beyond. World Watch Institute, Washington D.C., 1990
4. Cantor L.M. : A World Geography of Irrigation. Oliver and Bord, London, 1967.
5. Desai G.N. and Vaidhanathan A : Strategic Issues in Future Growth of Fertilizer Use in India. McMillan Pub., New Delhi, 1998.
6. Gregor, H.P. : Geography of Agriculture. Prentice Hall, New York, 1970
7. Grigg D.B. : The Agricultural Systems of the World. Cambridge University Press, New York, 1974.
8. Morgan W.B. and Norton, R.J.C. : Agricultural Geography. Mathuen, London, 1971.
9. Nelson, Paul : Greenhouse Operation and Management. Reston Publishing, Virginia, 1985.
10. Sarkar, A.K. : Practical Geography : A Systematic Approach. Oriental Longman, Calcutta, 1997.
11. Sauer, C.O. : Agricultural Origins and Disparities. M.I.T. Press, Mass, U.S.A., 1969.
12. Singh, J and Dhillon, S.S. : Agricultural Geography. Tata McGraw Hill Pub., New Delhi, 1988.
१३. फुलेसुरेश : कृषिभूगोल, श्री. विद्याभारतीप्रकाशन, लातूर- २००२ १४.सांलुखेविजया : कृषिभूगोल, शेठपब्लिशर्स, मुंबई- २००३
१५. धारपुरेविठठल : कृषिभूगोलपिंपळापुरेऑण्ड कं. पब्लिशर्स, नागपूर- २००० १६. खतीब के. ओ. : कृषीभूगोल

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Revised Syllabus For

B. A. Part-III & B. A. B. Ed.

Geography

(Evolution of Geographical Thought)

CBCS PATTERN

Syllabus to be implemented from

(Subject to the modifications to be made from time to time)

Syllabus to be implemented from June 2020 onwards

**B. A. Part – III & B. A. B. Ed. Geography
(Evolution of Geographical Thought)
Syllabus to be implemented from June 2020 onwards**

1. TITLE : Evolution of Geographical Thought

Optional under the Faculty of Science

2. YEAR OF IMPLEMENTATION :

Revised Syllabus will be implemented from June 2020 onwards.

3. PREAMBLE

This curriculum focuses on the understanding of core and fundamental branches of the discipline. This paper is specially designed to cater to foundation building of the students by imparting knowledge about the pillars of geography. It encompasses the evolution of the subject right from the experiences and understanding of travelers and explorers regarding space, place and people to the progression towards establishment of the discipline geography in sciences.

4. GENERAL OBJECTIVES OF THE COURSE

- 1) To study the historical evolution of geographic thought.
- 2) An analysis of different paradigms in geography.
- 3) To evaluating the contemporary trends in geographical studies.
- 4) To study the paradigms and debates in the geographical studies.
- 5) To study the recent trends in geography.

5. COURSE OUTCOMES

- 1) Student should be able to understand in-depth about the Evolution of Geographical Thought.
- 2) Students should be able to analyse the recent trends in geography.
- 3) Student should be able to make use of various models of paradigms and debates in the geographical studies.
- 4) Understanding of recent trends in geography.

6. DURATION

- The course shall be a full time course
- The duration of course shall be of one year (Sem. – V)

7. PATTERN

Pattern of Examination will be Semester

8. FEE STRUCTURE

(As per the Shivaji University rules; and as applicable to regular)

9. ELIGIBILITY FOR ADMISSION :

As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

10. MEDIUM OF INSTRUCTION :

The medium of instruction shall be in English or Marathi. (as applicable to the course /programme concerned.)

11. STRUCTURE OF COURSE 50 MARKS

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.

Title Marks

DSC-E106 or VII, Evolution of Geographical Thought

50

12. SCHEME OF TEACHING AND EXAMINATION

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Evolution of Geographical Thought	04	04	00	04	40	10	50

13. SCHEME OF EXAMINATION :

- The examination shall be conducted at the end of each semester
- The theory paper shall carry 40 marks
- The term work shall carry 10 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING:

As Prescribed under rules & regulation for each degree/ programme.

15. NATURE OF QUESTION PAPER AND SCHEME OF MARKING :

(Unit wise weightage of marks should also be mentioned)

Semester V

Marks

Question : 1) Objective Type Question (Multiple Choice) 05

Question: 2) Short Notes (Any three out of five) 15

Question: 3) Detailed Answer Type Question (Any two out of three) 20

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Physical Geography of India	VII	Evolution of Geographical Thought	E106 or VII

17. SPECIAL INSTRUCTIONS, IF ANY.

**NEW/REVISED SYLLABUS FOR
B. A. Part-III and B. A. B. Ed. Geography
(Introduced from June 2020 onwards)
Semester - V**

(i) E106 or Paper No. VII

(ii) Title of Paper: Evolution of Geographical Thought

Module	Teaching Hours	Credit
Module – I Geography in Ancient Period	15	1
1.1 Contribution of Greeks and Romans		
1.2 Arab Geographical Thoughts		
1.3 Indian Geographical Thoughts		
1.4 Exploration and Development of Geography		
Module – II Schools of Geography	15	1
2.1 German School of Geography – Alexander von Humboldt		
2.2 French School of Geography – Vedal de la Blache		
2.3 American School of Geography – William Moris Davis		
2.4 British School of Geography – Halford J. Mackinder		
Module – III Dualisms in Geography	15	1
3.1 Determinism Vs Possibilism		
3.2 Systematic Vs Regional geography		
3.3 Physical Vs Human geography		
3.4 Historical Vs Contemporary		
Module – IV Trends in Geography	15	1
4.1 Quantitative Revolution		
4.2 Model Building in Geography		

4.3 Man-nature relationship: Radicalism, Behaviourism and Humanism

4.4 Future of Geography

Books Recommended :

Adhkari, S. (2006) *Fundamentals of Geographical Thought*, Chaitanya Publishing House, Allahabad.

Bunkse, V.E. (2004) *Geography and the art of Life*, John Hopkins University Press, Baltimore,

Dikshit, R. D. (1997). *Geographical Thought: A Contextual History of Ideas*. Delhi, India: Prentice– Hall India.

Dixit, R.D. (2001) *Geographical Thought : A critical History of ideas*, Prentice Hall of India, New Delhi

Dixit, R.D. (2001) *भौगोलिक चिंतन*, Prentice Hall of India, New Delhi

Gaile, G. and Wilmot, C. (ed) (2003) *Geography in America at the Dawn of the 21st Century*, Oxford University Press, Oxford & New York.

Harvey, David., (1969): *Explanation in Geography*, London: Arnold.

Hubbard, P. et al (2002) *Thinking Geographically : Space, Theory and Contemporary Human Geography*, Continuum, London

Johnston, R.J. (1988) *The Future of Geography*, Methuen, London,

Johnston, R.J. and Claval, P. (1984) *Geography since the Second World War : An International survey*, Crown Haim, Sydney.

Majid Husain (2007): *Evolution of Geographic Thought* Rawat Publication, Jaipur

Marcus, D. (1999) *Post – Structuralism in Geography, The Diabolical Arts of Spatial Sciences*, Edinburgh University Press, Edinburgh.

Martin Geoffrey J. (2005). *All Possible Worlds: A History of Geographical Ideas*, UK: Oxford.

Singh, R.B. (2016). *Progress in Indian Geography*. New Delhi, India: Indian National Science Academy.

Sudeepta, A. (2015). *Fundamentals of Geographical Thought*. Delhi, India: Orient black swan private limited.

e-PG Pathshala: <https://epgp.inflibnet.ac.in/>

MOOCS - NPTEL: <https://nptel.ac.in/>

MOOCS - SWAYAM: <https://swayam.gov.in/>

National Digital Library of India: <https://ndl.iitkgp.ac.in/>

Shivaji University Library (E-Resources): <http://www.unishivaji.ac.in/library/E-Resources>

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B. A. Part-III & B. A. B. Ed.

Geography
(Economic Geography)

CBCS PATTERN

Syllabus to be implemented from

(Subject to the modifications to be made from time to time)

Syllabus to be implemented from June 2020 onwards

B. A. Part – III & B. A. B. Ed.
Geography (Economic Geography)
Syllabus to be implemented from June 2020 onwards
Semester-VI

1.TITLE : Economic Geography

Optional under the Faculty of Science

4. YEAR OF IMPLEMENTATION :

Revised Syllabus will be implemented from June 2020 onwards.

5. PREAMBLE

[**Note :-** The Board of Studies should briefly mention foundation, core and applied components of the course/paper. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge at examination level.]

9. GENERAL OBJECTIVES OF THE COURSE

- 6) To study the basics of economic geography.
- 7) To study the locational factors of economic activities with special reference to agriculture and industry.
- 8) To study the basics concepts related to manufacturing and major manufacturing industries of selected countries of the world.
- 9) To study the transport and trade.

10. COURSE OUTCOMES

- 5) In depth understanding about the economic geography.
- 6) Detailed knowledge about locational factors of economic activities with special reference to agriculture and industry.
- 7) Detailed understanding of the basics concepts related to manufacturing and major manufacturing industries (selected countries) of the world.
- 8) Understanding of the transport and trade.

11. DURATION

- The course shall be a full time course
- The duration of course shall be of one year (Sem. – VI)

12. PATTERN

Pattern of Examination will be Semester

13. FEE STRUCTURE

(As per the Shivaji University rules; and as applicable to regular)

11. ELIGIBILITY FOR ADMISSION :

As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

12. MEDIUM OF INSTRUCTION :

The medium of instruction shall be in English or Marathi. (as applicable to the course /programme concerned.)

12. STRUCTURE OF COURSE 50 MARKS

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.

DSE-E230 or X, Economic Geography

Title Marks

50

12. SCHEME OF TEACHING AND EXAMINATION

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Economic Geography	04	04	00	04	40	10	50

14. SCHEME OF EXAMINATION :

- The examination shall be conducted at the end of each semester
- The theory paper shall carry 40 marks
- The term work shall carry 10 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

15. STANDARD OF PASSING:

As Prescribed under rules & regulation for each degree/ programme.

16. NATURE OF QUESTION PAPER AND SCHEME OF MARKING :

(Unit wise weightage of marks should also be mentioned)

Semester -VI	Marks
Question: 1) Objective Type Question (Multiple Choice)	05
Question: 2) Short Notes (Any three out of five)	15
Question: 3) Detailed Answer Type Question (Any two out of three)	20

17. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr.	Title of Old Paper	Old paper	Title of New paper	New Paper
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No.		No.		No.
1	Economic Geography of India	X	Economic Geography	DSE-E230 or X

18. SPECIAL INSTRUCTIONS, IF ANY.

**NEW/REVISED SYLLABUS FOR
B. A. Part-III and B. A. B. Ed. Geography
(Syllabus to be implemented from June 2020 onwards)
Semester - VI**

(iii) E230 or Paper No. X

(iv) Title of Paper: Economic Geography

Module	Teaching Hours	Credit
Module – I Introduction to Economic Geography	15	1
1.1 Definition, Nature and Scope		
1.2 Concept and Classification of Economic Activity		
1.3 Branches of Economic Geography		
1.4 Significance of Economic Geography		
Module – II Economic Activity	15	1
2.1 Factors Affecting on Location of Agricultural Activity		
2.2 Factors Affecting on Location of Industrial Activity		
2.3 Alfred Weber's Theory of Industrial Location		
Module – III Manufacturing Activity	15	1
3.1 Concept of Manufacturing Region		
3.2 Concept of Special Economic Zone		
3.3 Major Industries: i) Cotton Textile Industry - USA		
ii) Iron and Steel Industry – USA		
iii) Sugar Industry – Brazil		
iv) Automobile Industry – India		
Module – IV Transport and Trade	15	1
4.1 Significance of Transportation		
4.2 Major Transport Routs: Roadway, Railway, Airway and Ocean Routs		

4.3 International Trade: India and USA

4.4 Trade Policies: India and USA

Books Recommended:

References

- Alexander J. W., (1963): Economic Geography, Prentice Hall Inc Englewood Cliffs, New Jersey.
- Boesch H. (1964) : A Geography of world Economy” D. Van Nostrand co. New York.
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- H. Robinson (1978): Economic Geography, Macdonald & Evans.
- Hamilton, I (1992) : Resources and Industry, Oxford University Press New York.
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- Walker, D. F., Collins, L. (Eds.), (1975): Locational Dynamics of Manufacturing Activity, John Wiley and Sons, New York.
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- Willington D. E., (2008): Economic Geography, Husband Press.
- Zimmermann, E. W., (1933): World's Resources and Industries, Harper and Row, New York.
- खतीब के. ए. — आर्थिक भूगोल, अजब प्रकाशन, कोल्हापूर
- धारपूरे विठ्ठल — आर्थिक भूगोल, पिंपळापुरे अँड कंपनी, नागपूर
- सवदी, कोळेकर — आधुनिक भूगोल, निराली प्रकाशन, पुणे.
- सवदी कोळेकर (२००८) — भूगोलाची मुलतत्वे, खंड दुसरा, निराली प्रकाशन

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B. A. Part-III & B. A. B. Ed.

Geography of India

CBCS PATTERN

(Subject to the modifications to be made from time to time)

Syllabus to be implemented from June 2020 onwards

**Accredited By NAAC
With 'A' Grade
New/Revised Syllabus For
Bachelor/Master of**

B. A. Part – III / B. A. B. Ed.

DSC (Discipline Specific Core Course) – E107 (Paper No. VIII) Geography (Sem. V)
Syllabus to be implemented from June 2020 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus for Bachelor of Arts and B. A. B. Ed.

1. TITLE: Subject – GEOGRAPHY OF INDIA

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2020 onwards.

3. PREAMBLE:-

The present course focuses on the studies of Geography of India should briefly mention foundation, core and applied components. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge of physiography, climate, drainage, soils, vegetation, agriculture and industry etc.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER/:

(As applicable to the Degree /Subject- Paper concerned)

- 1) To acquaint the students with distinct dimensions of India and physical setup of the country.
- 2) To focus the climate of India and mechanism of monsoon of India.
- 3) To get information about soils and vegetations in India.
- 4) To help the students to understand recent trends in regional study.
- 5) To focus on the mineral, agricultural and industrial product of the country.
- 6) To understand the economic setup of the country.

4.1 COURSE OUTCOMES

- 1) In depth understanding the dimensions and physiography of India.

- 2) The students are fully aware about the climatic seasons in India.
- 3) Detailed knowledge about soils, vegetations, drainage systems in India.
- 4) Understanding an importance of agriculture and industry in Indian economy.
- 5) Detailed knowledge about the economic setup of the India.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)

8. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.

E107 (DSC)/Paper No. VIII, Geography of India

Title Marks

50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme (Marks)			
		L	T	P	Total	Theory	Practical	Term work	Total
1	Geography of India	04	04	-	04	40	-	10	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks and term work shall carry 10 marks (as applicable to the course).
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 40 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Semester V		Marks
Question: 1)	Objective Type Question (Multiple Choice)	05
Question: 2)	Short Notes (Any three out of five)	15
Question: 3)	Detailed Answer Type Question (Any two out of three)	20

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
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1	Economic Geography	VIII	Geography of India	DSE-E 107 Or VIII
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16. SPECIAL INSTRUCTIONS, IF ANY – Nil

**New/ Revised syllabus for
B. A. Part-III and B. A. B. Ed. (Semester -V)
(Syllabus to be implemented from June 2020 onwards)**

(i) Paper – E107 or VIII

(ii) Title of Paper - Geography of India.

(iii) Specific Objectives: -----

(iv) A brief note: - (On expected level of study from examination and assessment point of view) :- -----

Module	Lectures	Credit
Module -I) Physical Profile of India	20	1
1.1) Location (Absolute and Relative)		
1.2) Physiographic Divisions (Characteristics and Importance)		
1.3) Climate: Summer, Rainy and Winter Seasons in India (weather conditions and Characteristics)		
1.4) Major Drainage Systems: a) Northern River Systems (Sindhu, Ganga & Brahmaputra)		
b) Southern River Systems (Godavari, Krishna & Cauvery)		
(Characteristics and Importance)		
Module -II) Soils and Forests	14	1
2.1 Major soil types, characteristics and its distribution in India		
2.2 Soil degradation and soil conservation in India		
2.3 Major forest types: characteristics and their distribution		
2.4 Deforestation and conservation of forests in India		
Module -III) Mineral and Power Resources	13	1

3.1 Conventional Resources: Iron Ore and Manganese (Distribution, Production and Trade)

3.2 Power Resources: Coal and Mineral Oil (Distribution, Production and Trade)

3.2 Non Conventional Resources: Solar and Wind (Distribution, Production and Trade)

Module -IV) Agriculture and Industry

13

1

4.1 Importance of Agriculture in Indian Economy.

4.2 Major Crops: Rice and Sugarcane (Distribution, Production and Trade)

4.3 Importance of Industries in Indian Economy.

4.4 Industries: Location Factors, Sugar Industry, Iron and Steel Industry and Fertilizer Industry (Distribution, Production and Trade)

References:

1. Majid H., (2013): Geography of India, Tata Mcgraw Hill Education (India) Private Limited, New Delhi.
2. Khullar R. D. (2007): India- A Comprehensive Geography, Kalayani Publisher.
3. Tiwari, R.C. (2007) Geography of India. Prayag Pustak Bhawan, Allahabad.
4. Singh R. L., (1971): India: A Regional Geography, National Geographical Society of India.
5. Deshpande C. D., (1992): India: A Regional Interpretation, ICSSR, New Delhi.
6. Johnson, B. L. C., ed. (2001). Geographical Dictionary of India. Vision Books, New Delhi.
7. Mandal R. B. (ed.), (1990): Patterns of Regional Geography – An International Perspective. Vol. 3 –
8. Indian Perspective.
9. Sdhasuk Galina and Sengupta P., (1967): Economic Regionalisation of India, Census of India
10. Sharma, T. C. 2003: India - Economic and Commercial Geography. Vikas Publ., New Delhi.
11. Singh, J., (2003),: India - A Comprehensive & Systematic Geography, Gyanodaya Prakashan, Gorakhpur.

12. Spate O. H. K. and Learmonth A. T. A., (1967): India and Pakistan: A General and Regional Geography, Methuen.
13. Tirtha, R., (2002): Geography of India, Rawat Publs., Jaipur & New Delhi.
14. Pathak, C. R. (2003): Spatial Structure and Processes of Development in India. Regional Science Assoc., Kolkata.
15. Sharma, T.C. (2013): Economic Geography of India. Rawat Publication, Jaipur.
16. Savadi, Kolekar: Bharatacha Samarag Bhugol, Nirali Prakashan, Pune.
17. Khatib K. A.,: Geography of India
18. Pawar C.T. & Others : Geography of India.
19. Soil and Water conservation manual Govt. of India.

SHIVAJI UNIVERSITY, KOLHAPUR.



**Accredited By NAAC
Revised Syllabus For
Bachelor of Arts Part III and B. A. B. Ed.
Geography
(Choice Based Credit System)
Urban Geography
Or
Regional Planning and Sustainable Development**

**(Subject to the modifications to be made from time to time)
Implemented From June, 2020 onward**

**B. A. Part – III & B. A. B. Ed.
Geography (Urban Geography), Semester-VI
Implemented From June, 2020 onward**

A] Ordinance and Regulations:-

(As applicable to degree/programme)

B] Shivaji University, Kolhapur

Revised Syllabus For B. A. Part – III and B. A. B. Ed.

1. TITLE: Subject – Urban Geography

2. FACULTY of SCIENCE:- Optional under the Faculty of Science

3. YEAR OF IMPLEMENTATION: - Revised Syllabus will be implemented from June 2020 onwards.

4. PREAMBLE:-

[**Note:** - The Board of Studies should briefly mention foundation, core and applied components of the course/paper. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge at examination level.]

5. GENERAL OBJECTIVES OF THE COURSE:

- 1) To Study the basic of Urban Geography.
- 2) To Study the types of Urban Settlements, Site and Situations.
- 3) To get an ideas of relationship between human activities and urban development.
- 4) To make the students capable for handling the present problematic situation in Urban and rural areas.
- 5) To make students as a good urban planner and environmental conservator.

6. COURSE OUTCOMES:

- 1) The students were known the importance of urban settlements through urban geography.
- 2) The students understood the types of Urban Settlements, Site and Situations.
- 3) The students were familiar with an idea of relationship between human activities and urban development.

- 4) Detail understanding of students regarding present urban problems and students are capable to handling of present problematic situations in urban areas.
- 5) The students are developed as a good urban planner and environmental conservator.

6. DURATION

- The course shall be a full time course.
- The duration of course shall be of one semester.

7. PATTERN:-

Pattern of Examination will be Semester

8. FEE STRUCTURE:-

(as applicable to regular course determined by the university and other fee will be applicable as per University rules/norms)

9. ELIGIBILITY CRITERIA FOR ADMISSION:

As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

10. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course/programme concerned.)

11. STRUCTURE OF COURSE-

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.

DSC-E231 or XI, Urban Geography

Title Marks

50

12. SCHEME OF TEACHING AND EXAMINATION:

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

THIRD YEAR

Scheme of Teaching and Examination

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Term	Total

							work	
1	Urban Geography	04	04	00	04	40	10	50

SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each semester
- The Theory paper shall carry 50 marks
- The term work shall carry 10 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As Prescribed under rules & regulation for each degree/programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Semester VI	Marks
Question 1) Objective Type Question (Multiple Choice)	05
Question 2) Short Note Type Question (Any four out of six)	15
Question 3) Detail Answers Type Question (Any two out of three)	20

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Urban Geography	XI	Urban Geography	DSE-E231 or XI

16. SPECIAL INSTRUCTIONS, IF ANY.

REVISED SYLLABUS FOR
(Choice Based Credit System)
B. A. Part-III and B. A. B. Ed, Geography
(Introduced from June 2020 onwards)

Semester – VI

(i) DSE- E231 or XI

(ii) Title of Paper: - Urban Geography

(iii) Specific Objectives:-

(iv) A brief note: - (On expected level of study from examination and assessment point of view):- -----

Modules	No. of Lectures
Credit	
Module-I: Introduction to Urban Geography	15
	01
1.1 Urban Geography: Meaning and Definitions	
1.2 Nature and Scope of Urban Geography	
1.3 Approaches of Urban Geography	
1.4 Significance of Urban Geography	
Module-II: Urbanization	15
	01
2.1 Site and Situation: Significance and Types	
2.2 Concept and Factors of Urbanization	
2.3 Patterns of Urbanization in developed and developing countries	
2.4 Functional classification of cities (Quantitative and Qualitative)	
Module-III: 3 Structure and Morphology of Urban Centers	15
01	
3.1 Structure and Morphology	
3.2 City Region and C.B.D.	
3.3 Rural-Urban Fringe	
3.4 Models of Town Morphology: The Concentric Zone Theory, the Sector Theory and the Multi-Nuclei Theory	

01

- 4.1 Urban Issues: problems of housing, slums, civic amenities (water and transport)
- 4.2 Concept of Garden City
- 4.3 Urban Planning in India
- 4.4 Case studies of Mumbai and Chandigarh with reference to Land use and Urban Issues

References

1. Tim Hall. (1998): Urban Geography, Routledge, London.
2. Verma L.N.: Urban Geography, Rawat Publications, Jaipur.
3. Johnson J. H. (1967): Urban Geography, An Introductory Analysis.
4. Bose A., : India's Urbanization 1974-2000, Tata McGraw Hill, New Delhi.
5. Carter H. (1972): The study of urban Geography, Edward Arnold, London.
6. Smailes A. E. : The Geography of Towns.
7. Taylor and Pntnam : Geography of Urban Places.
8. Hudson F : Settlement Geography
९. दशपांडे सी.डी. १९८३ शहरे-कार्यमैल प्रकाशन, पुणे
१०. स्वामी, कोळेकर, २००५ आधुनिक भूगोल निराली प्रकाशन, पुणे १. खतीबके. ए. २००७ :
वसाहती भूगोल, अजब प्रकाशन, कोल्हापूर
12. Mandal : Urban Geography

**B. A. Part – III & B. A. B. Ed. Geography
(Regional Planning and Sustainable Development)
Implemented From June, 2020 onward**

A] Ordinance and Regulations:-
(As applicable to degree/programme)

B] Shivaji University, Kolhapur
Revised Syllabus For **B. A. Part – III and B. A. B. Ed.**

1. TITLE: Subject – Regional Planning and Sustainable Development

2. FACULTY of SCIENCE:- Optional under the Faculty of Science

3. YEAR OF IMPLEMENTATION:- Revised Syllabus will be implemented from June 2020 onwards.

4. PREAMBLE:-

Regional Planning is the need of time to everyone. Geography subject can lead to the development of human activities through regional planning. In the process of development of geography, the changing nature of subject will make aware to the students about the recent technologies used in geography. This will further help to improve the use of geographical techniques and methods in teaching, learning and research work through regional planning.

5. GENERAL OBJECTIVES OF THE COURSE:

- 1) To introduce the students with the importance of regional planning.
- 2) To understand the concepts of region, regionalization, regional planning & development.
- 3) To give basic information to the students about the region.
- 4) To get familiar with indicators of measurement of development.
- 5) To understand Perroux's Growth Pole Model & Growth Center Model in Indian context.
- 6) To develop skills for demarcation of region.
- 7) To aware the students regional planning with recent technology.

6. COURSE OUTCOMES:

- 6) The students were known the importance of regional planning.
- 7) The students understood the concepts of region, regionalization, regional planning & development and detailed knowledge of region.
- 8) The students were familiar with indicators of measurement of development.

- 9) Detail understanding of Perroux's Growth Pole Model & Growth Center Model in Indian context.
- 10) The students are develop skills for demarcation of region and aware the regional planning with recent technology.

6. DURATION

- The course shall be a full time course.
- The duration of course shall be of one semester.

7. PATTERN:-

Pattern of Examination will be Semester

8. FEE STRUCTURE:-

(as applicable to regular course determined by the university and other fee will be applicable as per University rules/norms)

9. ELIGIBILITY CRITERIA FOR ADMISSION:

As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.

10. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course/programme concerned.)

11. STRUCTURE OF COURSE-

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.	Title Marks
DSC-E231 or XI, Regional Planning and Sustainable Development	40

12. SCHEME OF TEACHING AND EXAMINATION:

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

THIRD YEAR

Scheme of Teaching and Examination

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme Sr. (Marks)		
		L	T	P	Total	Theory	Term	Total

							work	
1	Regional Planning and Sustainable Development	04	04	00	04	40	10	50

SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each semester
- The Theory paper shall carry 50 marks
- The term work shall carry 10 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As Prescribed under rules & regulation for each degree/programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Semester VI	Marks
Question 1) Objective Type Question (Multiple Choice)	05
Question 2) Short Note Type Question (Any four out of six)	15
Question 3) Detail Answers Type Question (Any two out of three)	20

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Urban Geography	XI	Regional Planning and Sustainable	DSE-E231 or XI

16. SPECIAL INSTRUCTIONS, IF ANY.

REVISED SYLLABUS FOR
(Choice Based Credit System)
B. A. Part-III and B. A. B. Ed, Geography
(Implemented From June, 2020 onward)

Semester – VI

(i) DSE- E231 or XI

(ii) Title of Paper: - Regional Planning and Sustainable Development

(iii) Specific Objectives:-

(iv) A brief note: - (On expected level of study from examination and assessment point of view):- -----

Modules	No. of Lectures	
Credit		
Module I: Region and Regionalization	(15)	1
1.1 Definition, Concept of Region and Regionalization		
1.2 Characteristics of Region		
1.3 Types of Region		
1.4 Demarcation of Region		
Module II: Regional Planning	(15)	1
2.1 Concept of Regional Planning		
2.2 Need for Regional Planning and Types of Regional Planning		
2.3 Choice of a Region for Planning		
2.4 Planning Regions of India		
Module III: Models for Regional Planning	(15)	1
3.1 Spread and Backwash Concept		
3.2 Walter Christaller's Central Place Theory		
3.3 Francois Perroux's Growth Pole Model		
3.4 R. P. Misra's Growth Foci Concept		
Module IV: Sustainable Development	(15)	1
4.1 Concept of Sustainable Development and Underdevelopment		
4.2 Rostow's Growth Model- Stages of Development		
4.3 An Indicators of Measuring Development		

4.4 Human Development Index (HDI)

18. Recommended Reading Material:

1. Alden, J. and Morgan, (1974): Regional Planning: A Comprehensive View, Leonard Hill Books, Beds.
2. Adrill, J. (1974): New Citizens Guide to Town and Country Planning, Charies knight and Company Ltd. London.
3. Chand, M. & Puri, V. (1983): Regional Planning in India, Allied Publishers Ltd., New Delhi.
4. Chandra, R.C. (2000): Regional Planning and Development, Kalyani Publishers, Ludhiana.
5. Cook. P. (1983): Theories of Planning and Spatial Development, Hutchinson & Company Ltd. London.
6. Diamond, D. (ed) (1982): Regional Disparities and Regional Policies, Pergamon Press, Oxford.
7. Dickinson R.E. (1964): City and Region: A Geographical Interpretation. Routledge and Keagan Paul.
8. Friedman, J. & Alonson W. (1964): Regional Development and Planning. MIT Press. Cambridge.
9. Galasson, John (1974): An Introduction to Regional Planning Hutchinson. Educational London.
10. Hilborot, J.G.M (1971): Regional Planning. Rotterdam University Press, Rotterdam.
11. Misra, R.P. Sundaram K.V. & Rao, V.L.S. Prakasa (1974): Regional Development Planning In India.
12. Misra, R.P. (1992): Regional Planning. Concept Publishing Company. New Delhi.
13. Reddi, K. V. (1988): Rural Development in India, Himalaya Pub, Mumbai.
14. Singh, R.L.(2008): Fundamentals of Human Geography, Sharada Pustak Bhawan, Allahabad.
15. Sundran, K.V. (1977): Urban and Regional Planning in India, Vikas Publishing, New Delhi.
16. Swawy, M.C.K., Bhaskara, R. Hegde, V.M. (eds.) (2008): Urban Planning and Development at Cross Roads, BC Books for Change, Bangalore.
17. Whynnes, Charles & Hammand (1979): Elements of Human Geography, George Aflen & Unwin, London.
Kothari, C. R. (1985): Research Methodology- Methods and Techniques, Wiley Eastern Limited, New Delhi
18. सवदी ए. बी. व कोळेकर पी. एस. (2008): भूगोलाची मूलतत्वे, खंड दुसरा, निराली प्रकाशन, पुणे

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For
B. A. Part-III & B. A. B. Ed.

**Population Geography
Or
Social Geography**

CBCS PATTERN

Syllabus to be implemented from

(Subject to the modifications to be made from time to time)
Syllabus to be implemented from June 2020 onwards

B. A. Part – III and B. A. B. ED.
DSC (Discipline Specific Core Course) E108 Geography (Course / Paper No. IX)
June 2020 onwards
Semester - V

A] Ordinance and Regulations:

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of –Arts and B. A. B. Ed.**

1. TITLE: POPULATION GEOGRAPHY

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION:

New/Revised Syllabi will be implemented from June 2020 onwards.

3. PREAMBLE:-

This curriculum focuses on the understanding of core and fundamental branches of the discipline. This paper is specially designed to learn the role of demography and population studies as a distinct field of human geography. It encompasses sound knowledge of key concept, different components of population. The curriculum has been carefully designed to include conceptual, basic themes, population dynamics and characteristic with contemporary issues.

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER/:

- 1) To study the basics of population geography.
- 2) To study the population growth trends and its distribution.
- 3) To study the population dynamics.
- 4) To study the population compositions and its characteristics.

5. Course Outcomes:

- 1) This paper would bring an understanding of population geography along with relevance of demographic data.
- 2) The students would get an understanding of distribution and trends of population growth in the developed and less developed countries, along with population concepts.
- 3) The students would get an understanding of the dynamics of population.
- 4) An understanding of the implications of population composition in different regions of the world.
- 5) An appreciation of the contemporary issues in the field of population studies

5. DURATION:

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:

Pattern of Examination will be Semester.

7. FEE STRUCTURE :

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)]

8. ELIGIBILITY FOR ADMISSION:

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 40 + 10 = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

THIRD YEAR / SEMESTER

Paper No.	Title Marks
Course / Paper DSE-E108 or IX, Population Geography	50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Population Geography	04	04	00	04	40	10	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks (as applicable to the course).
- The term work shall carry 10 marks
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 40 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus

and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Semester V	Marks
Question: 1) Objective Type Question (Multiple Choice)	05
Question: 2) Short Notes (Any three out of five)	15
Question: 3) Detailed Answer Type Question (Any two out of three)	20

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Research Methodology	IX	Population Geography	E108 or IX

16. SPECIAL INSTRUCTIONS, IF ANY – Nil

**NEW/REVISED SYLLABUS FOR
B. A. Part-III and B. A. B. Ed. Geography
(Syllabus to be implemented from June 2020 onwards)
Semester - V**

- (i) **Course/ Paper No. E108 or IX**
- (ii) **Title of Paper: - POPULATION GEOGRAPHY**
- (iii) **Specific Objectives: -**
- (iv) **A Brief note: - (On expected level of study from examination and assessment point of view): -.....**

Module	Teaching Hours	Credits
Module I: Introduction to Population Geography	15	01
1.1 Definition of Population Geography		
1.2 Nature and Scope of Population Geography		
1.3 Significance of Population Geography		
1.4 Sources of Population Data		
Module II: Population Growth and Distribution	15	01
2.1 World Population Growth		
2.2 Factors Affecting on the Population Distribution		
2.3 Population Distribution of the World		
2.4 Population Concepts: Minimum Population, Optimum Population and Over Population		
Module III: Population Dynamics	15	01
3.1 Concept of Population Dynamics		
3.2 Fertility: Concept and Types		
3.3 Fertility: Causes, Effects and Measures		
3.4 Mortality: Concept and Types		
3.5 Mortality: Causes, Effects and Measures		
Module IV: Population Composition	15	01
4.1 Age		
4.2 Sex		
4.3 Literacy		
4.4 Rural and Urban Population		

REFERENCES:

1. Barrett H. R., 1995: Population Geography, Oliver and Boyd.
2. Bhende A. and Kanitkar T., 2000: Principles of Population Studies, Himalaya Publishing House.
3. Chandna R. C. and Sidhu M. S., 1980: An Introduction to Population Geography, Kalyani Publishers.
4. Clarke J. I., 1965: Population Geography, Pergamon Press, Oxford.
5. Jones, H. R., 2000: Population Geography, 3rd ed. Paul Chapman, London.
6. Lutz W., Warren C. S. and Scherbov S., 2004: The End of the World Population Growth in the 21st Century, Earthscan
7. Newbold K. B., 2009: Population Geography: Tools and Issues, Rowman and Littlefield Publishers.
8. Pacione M., 1986: Population Geography: Progress and Prospect, Taylor and Francis.
9. Wilson M. G. A., 1968: Population Geography, Nelson.
10. Panda B P (1988): Janasankya Bhugol, M P Hindi Granth Academy, Bhopal
11. Maurya S D (2009) Jansankya Bhugol, Sharda Putak Bhawan, Allahabad
12. Chandna, R C (2006), Jansankhya Bhugol, Kalyani Publishers, Delhi
14. Trewartha, G T (1969), A Geography of Population: world patterns, John Wiley, New York.
15. e-PG Pathshala: <https://epgp.inflibnet.ac.in/>
16. MOOCS - NPTEL: <https://nptel.ac.in/>
17. MOOCS - SWAYAM: <https://swayam.gov.in/>
18. National Digital Library of India: <https://ndl.iitkgp.ac.in/>
19. Shivaji University Library (E-Resources): <http://www.unishivaji.ac.in/library/E-Resources>

B. A. Part – III & B. A. B. Ed.
SOCIAL GEOGRAPHY
Syllabus to be implemented from June 2020 onwards

1.TITLE : Social Geography

Optional under the Faculty of Science

6. YEAR OF IMPLEMENTATION :

Revised Syllabus will be implemented from June 2020 onwards.

7. PREAMBLE

This curriculum focuses on the understanding of social geography of the discipline. This paper is specially designed to cater to social study of the students by imparting knowledge about the society. Social geography is the branch of human geography that is most closely related to social problems and well being, dealing with the relation of social phenomena and its spatial components. The different conceptions of social geography have been overlapping with other sub-fields of geography. It was basically applied as a synonym for the search for patterns in the distribution of social groups and there problems.

14. GENERAL OBJECTIVES OF THE COURSE

- 1) Understanding the concept, origin, nature and scope of social geography.
- 2) To study the migration, technological and occupational changes in India peoples.
- 3) An analysis of different social categories and their spatial distribution.
- 4) To understand the geographies of social welfare and well being.

4.1 COURSE OUTCOMES

- 6) In depth understanding the problems and prospects of society in India.
- 7) The students are fully aware about the migration, technological and occupational changes in India peoples.
- 8) Detailed knowledge about the social categories and communities in world.
- 9) Understanding concepts of social well being and welfare.

5. DURATION

- The course shall be a full time course
- The duration of course shall be of one year (Sem. – V)

6. PATTERN:

Pattern of Examination Will Be Semester

7. FEE STRUCTURE:

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER FIFTH

Paper No.

Title Marks

DSE-E108 or IX, Social Geography

50

12. SCHEME OF TEACHING AND EXAMINATION

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
1	Social Geography	04	04	00	04	40	10	50

15. SCHEME OF EXAMINATION :

- The examination shall be conducted at the end of each semester.
- The Theory paper shall carry 50 marks.
- The term work shall carry 10 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of semester Examination of 50 marks.

- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

14. STANDARD OF PASSING: As Prescribed under rules & regulation for each degree/ programme.

15. NATURE OF QUESTION PAPER AND SCHEME OF MARKING :-

(Unit wise weightage of marks should also be mentioned)

Semester V	Marks
Question : 1) Objective Type Question (Multiple Choice)	05
Question: 2) Short Notes (Any three out of five)	15
Question: 3) Detailed Answer Type Question (Any two out of three)	20

**18. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS-
(FOR REVISED SYLLABUS)**

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Research Methodology	IX	Social Geography	E108 or Paper No. IX

17. SPECIAL INSTRUCTIONS, IF ANY.

**NEW/REVISED CBCS PATTERN SYLLABUS FOR
B. A. - Part III and B. Ed. Geography Elective Discipline Specific
DSE –E108 or Paper No. IX
(Introduced from June 2020 onwards)**

Semester – V

(v) Paper – E108 or IX

(vi) Title of Paper: Social Geography

Module	Teaching Hours	Credit
Module-I: Introduction to Social Geography	15	(1)
1.1 Definitions, Nature and Scope of Social Geography		
1.2 Sub-branches of Social Geography		
1.3 Relationship with other Social Sciences		
1.4 Approaches and Significance of Social Geography		
Module-II: Peopling Process in India	15	(1)
2.1 Educational Changes		
2.2 Technological Changes		
2.3 Occupational Changes		
2.4 Migration		
Module-III: Social Categories and their Spatial Distribution	15	(1)
3.1 Race		
3.2 Religions		
3.3 Gender		
Module-IV: Geographies of Welfare, Well Being and Social Problems in India	15	(1)
4.1 Concept of Social Welfare and Well being		
4.2 Healthcare and Housing Facilities		
4.3 Slums		
4.4 Communal Conflicts and Crime		

References

1. Ahmed A., 1999: Social Geography, Rawat Publications.
2. Casino V. J. D., Jr., 2009) Social Geography: A Critical Introduction, Wiley Blackwell.

3. Cater J. and Jones T., 2000: Social Geography: An Introduction to Contemporary Issues, Hodder Arnold.
4. Holt L., 2011: Geographies of Children, Youth and Families: An International Perspective, Taylor & Francis.
5. Panelli R., 2004: Social Geographies: From Difference to Action, Sage.
6. Rachel P., Burke M., Fuller D., Gough J., Macfarlane R. and Mowl G., 2001: Introducing Social Geographies, Oxford University Press.
7. Smith D. M., 1977: Human geography: A Welfare Approach, Edward Arnold, London.
8. Smith D. M., 1994: Geography and Social Justice, Blackwell, Oxford.
9. Smith S. J., Pain R., Marston S. A., Jones J. P., 2009: The SAGE Handbook of Social Geographies, Sage Publications.
10. Sopher, David (1980): An Exploration of India, Cornell University Press, Ithasa.
11. Valentine G., 2001: Social Geographies: Space and Society, Prentice Hall

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

**Revised Syllabus For
B. A. Part-III & B. A. B. Ed.
Political Geography
Or
Geography of Health and Wellbeing**

CBCS PATTERN

**(Subject to the modifications to be made from time to time)
Syllabus to be implemented from June 2020 onwards**

**Accredited By NAAC
With 'A' Grade
New/Revised Syllabus For
Bachelor/Master of**

B. A. Part – III and B. A. B. Ed.
DSC (Discipline Specific Core Course) – E232 or Paper No. XII
Geography (Political Geography), Sem.-VI
Syllabus to be implemented from June 2020 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus For **Bachelor of -Arts.**

1. TITLE: Subject – POLITICAL GEOGRAPHY

Optional/Compulsory/Additional/IDS under the Faculty of Science

2. YEAR OF IMPLEMENTATION: - New/Revised Syllabi will be implemented from June 2020 onwards.

3. PREAMBLE:-

Political Geography is the most important branch of Human Geography. But after 1960 this branch of Geography becomes popular due to its own significance in the World. Therefore, it has been introduced to B. A. Part-III. In this course the fundamental as well basic concepts and knowledge of Political Geography have been included. The present syllabus of this course includes nature, scope,

4. GENERAL OBJECTIVES OF THE COURSE/ PAPER/:

(As applicable to the Degree /Subject- Paper concerned)

- i) To study the Political geography as a fundamental branch of Human Geography.
- ii) To familiarize the students with the basics and fundamental concepts and theories of Political Geography.
- iii) To aware the students about resource conflicts and politics of displacement.

4.1 COURSE OUTCOME

- i) The students are fully aware about the Political geography as a fundamental branch of Human Geography.
- ii) The students are familiarized with the basics and fundamental concepts and theories of Political Geography.
- iii) The students are aware about resource conflicts and politics of displacement.

5. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

[Note: - In case of any New degree/Program started at university/college, the respective colleges/ Dept. should submit a separate proposal of fee structure to BOS office. (i. e. Tution Fee & Laboratory Fee, if any.)

8. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination (i.e. Entrance Examination), if any.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course / programme concerned.)

10. STRUCTURE OF COURSE = 50 marks

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission/revision of first year syllabus.)

SEMESTER SIXTH

Paper No.

DSC-E232 or Paper No. XII, Political Geography

Title Marks

50

11. SCHEME OF TEACHING:

The scheme of teaching and examination should be given as applicable to the course / paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme Sr. (Marks)			
		L	T	P	Total	Theory	Practical	Term Work	Total
1	Political Geography	04	04	-	04	40	-	10	50

12. SCHEME OF EXAMINATION:

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks (as applicable to the course).
- The term work shall carry 10 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:

As per Prescribed rules and regulation for each degree / programme.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Semester V		Marks
Question: 1)	Objective Type Question (Multiple Choice)	05
Question: 2)	Short Notes (Any three out of five)	15
Question: 3)	Detailed Answer Type Question (Any two out of three)	20

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

Sr. No.	Title of Old Paper	Old paper No.	Title of New paper	New Paper No.
1	Political Geography	XII	Political Geography	E 232 or XII

16. SPECIAL INSTRUCTIONS, IF ANY – Nil

**NEW/REVISED SYLLABUS FOR
B. A. Part-III and B. A. B. Ed. Geography
(Syllabus to be implemented from June 2020 onwards)
Semester - VI**

(i) DSC – E 232 or XII

(ii) Title of Paper:- POLITICAL GEOGRAPHY

(iii) Specific Objectives:- -----

(iv) A brief note:- (On expected level of study from examination and assessment point of view):- -----

Module	Teaching Hours	Credits
Module I: Introduction to Political Geography	15	01
1.1 Definition of Political Geography		
1.2 Nature and Scope of Political Geography		
1.3 Approaches of Political Geography		
1.4 Significance of Political Geography		
Module II: Concepts in Political Geography	15	01
2.1 State		
2.2 Nation		
2.3 Boundary		
2.4 Frontier		
Module III: Theories in Political Geography	15	01
3.1 Hartland Theory - Halford J. Mackinder		
3.2 Rimland Theory – Nicholas J. Spykeman		
Module IV: Resource Disputes and Conflicts	15	01
4.1 Krishna Water Dispute		
4.2 Ganga Water Dispute		
4.3 Sardar Sarovar Project: Issues of Relief, Compensation and Rehabilitation		
4.4 Chandoli Dam Project: Issues of Relief, Compensation and Rehabilitation		

Reading List

1. Adhikari, S. (1997) : Political Geography, Rawat Publications, Jaipur.
2. Dikshit, R. D. (1985) : Political Geography, A Contemporary Perspective, McGraw Hill, New Delhi
3. Dwivedi, R. L. (1996): Political Geography, ChaitanyaPrakashan, Allahabad.

4. Muir, Richard (1995): Modern Political Geography, Macmillan, London.
5. Pounds, N. J. G. (1972): Political Geography 2nd Ed. McGraw Hill, N. Y.
6. Sharma, T. C. : Political Geography.
7. Agnew J., 2002: Making Political Geography, Arnold.
8. Agnew J., Mitchell K. and Toal G., 2003: A Companion to Political Geography, Blackwell.
9. Cox K. R., Low M. and Robinson J., 2008: The Sage Handbook of Political Geography, Sage Publications.
10. Cox K., 2002: Political Geography: Territory, State and Society, Wiley-Blackwell
11. Gallaher C., et al, 2009: Key Concepts in Political Geography, Sage Publications.
12. Glassner M., 1993: Political Geography, Wiley.
13. Jones M., 2004: An Introduction to Political Geography: Space, Place and Politics, Routledge.
14. Mathur H M and M M Cernea (eds.) Development, Displacement and Resettlement – Focus on Asian Experience, Vikas, Delhi
15. Painter J. and Jeffrey A., 2009: Political Geography, Sage Publications.
16. Taylor P. and Flint C., 2000: Political Geography, Pearson Education.
17. Verma M K (2004): Development, Displacement and Resettlement, Rawat Publications, Delhi
18. Hodder Dick, Sarah J Llyod and Keith S McLachlan (1998), Land Locked States of Africa and Asia (vo.2), Frank Cass

Accredited By NAAC
With 'A' Grade
New/Revised Syllabus For
B. A. Part – III and B. A. B. Ed.
DSE-E232 (Discipline Specific Elective Course/Paper No.XII
Geography (Geography of Health and Wellbeing), Semester-VI
Syllabus to be implemented from June 2020 onwards

A] Ordinance and Regulations:-

(As applicable to degree/program)

B] Shivaji University, Kolhapur

New/Revised Syllabus for Bachelor of Arts and B. A. B. Ed.

1. TITLE: **Geography of Health and Wellbeing**
Optional/Compulsory/Additional/**DSE**

2. FACULTY: Faculty of Science.

3. YEAR OF IMPLEMENTATION:

New/Revised Syllabi will be implemented from June 2020 onwards.

4. PREAMBLE:

Geography of Health and Wellbeing considers the significance for physical and mental health of interactions between people and their environment. This branch of Geography becomes popular due to its significance. Therefore, it has been introduced to B. A. Part-III. In this course the fundamental concepts and knowledge of Geography of Health and wellbeing have been included. The present syllabus of this course includes perspectives of health, pressure on environmental quality and health, exposure and health risks, health and disease patterns.

5. GENERAL OBJECTIVES OF THE COURSE/PAPER:

(As applicable to the Degree/Subject-Paper concerned)

- i) To know Geography of Health and Wellbeing.
- ii) To study the fundamental concepts health and environmental trends.
- iii) To study the pressure on environmental quality and health.
- iv) To study the exposure and health risks.
- iv) To understand the health and various disease patterns in environmental context with special reference to India.

6. COURSE OUTCOME:

After the completion of course, the students will have ability to:

1. Understand various geographical perspectives related to human health.

2. Create awareness of human health and environmental trends.
3. The students are familiar with geographical background of diseases and their regional pattern.
4. Detail understanding of pressure on environmental quality and human health.
5. Create awareness among the students of malnutrition and hygiene.
6. The students are familiar with the process of health care planning in India.
7. The students are aware about impact of climate change on human health.

6. DURATION

- The course shall be a full time course.
- The duration of course shall be of Three years, as applicable to the respective degree.

8. PATTERN:

Pattern of Examination will be Semester.

8.FEE STRUCTURE:

As per Government/University rules.

[Note: In case of any New degree/Program started at university/college, the respective colleges/Dept. should submit a separate proposal of fee structure to BOS office.(i.e. Tution Fee & Laboratory Fee, if any.)]

9. ELIGIBILITY FOR ADMISSION:-

As per eligibility criteria prescribed for respective degree programme and the merit in the qualifying examination (i.e. Entrance Examination), if any.

10.MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English or Marathi. (as applicable to the course/programme concerned.)

11.STRUCTURE OF COURSE = 50 marks

(Note–The structure & title of papers of the degree as a whole should be submitted at The time of submission/revision of first year syllabus.)

SEMESTER SIXTH Paper No.

Course E 232/Paper- XII, Geography of Health and Wellbeing

TitleMarks
50

12. SCHEME OF TEACHING AND EXAMINATION:

The scheme of teaching and examination should be given as applicable to the course /paper concerned.

Sr. No.	Subject/Papers	Teaching Scheme Per Week				Examination Scheme (Marks)			
		L	T	P	Total	Theory	Practical	Term Work	Total
1	Geography of Health and Wellbeing	04	04	-	04	40	-	10	40

13. Scheme of Examination:

- The examination shall be conducted at the end of each academic year.
- The paper shall carry 40 marks.
- The term work shall carry 10 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the / in accordance with the entire syllabus and preferably covering each unit of syllabi.

14. Standard of Passing:

(As prescribed under rules & regulation for each degree / program)

15. Nature of Question Paper and Scheme of Marking:

(Unit wise weightage of marks should also be mentioned)

Semester V		Marks
Question: 1)	Objective Type Question (Multiple Choice)	05
Question: 2)	Short Notes (Any three out of five)	15
Question: 3)	Detailed Answer Type Question (Any two out of three)	20

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS (For revised Syllabus)

Sr. No.	Title of Old Paper	Title of New Paper
1	Political Geography (Paper -I)	Geography of Health and Wellbeing E232 (Paper No. XII)

17. Special Instructions, If any.

NEW/REVISED SYLLABUS FOR
B. A. Part-III and B. A. B. Ed. Geography
(Syllabus to be implemented from June 2020 onwards)
Semester-VI

(i) Course/Paper No. E232 or XII

(ii) Title of Paper:- GEOGRAPHY OF HEALTH AND WELLBEING

(iii) Specific Objectives:-----

(iv) A brief note:-

(On expected level of study from examination and assessment point of view):- -----

Module	Teaching Hours	Credits
Module I: Perspectives on Health	15	01
1.1 Definition, Nature and Scope		
1.2 Trends and Applications		
1.3 Linkages with Environment and Development		
1.4 Health and Environmental Trends: Population Dynamics, Urbanization, Poverty and Inequality		
Module II: Pressure on Environmental Quality and Health	15	01
2.1 Human Activities and Environmental Pressure		
2.2 Land use and Agricultural Development		
2.3 Industrialization		
2.4 Transportation		
Module III: Exposure and Health Risks	15	01
3.1 Air and Water Pollution		
3.2 Household Wastes		
3.3 Housing		
3.4 Workplace		
Module IV: Health and Disease Patterns	15	01
(In Environmental Context with special reference to India)		
4.1 Communicable diseases and their regional pattern – AIDS and Dengue		
4.2 Lifestyle related diseases and their regional pattern – Cancer and Diabetes		
4.3 Climate change and human health		
4.4 Food production and nutrition		

REFERENCES

1. Akhtar Rais (Ed.), 1990: Environment and Health Themes in Medical Geography, Ashish Publishing House, New Delhi.
2. Avon Joan L. and Jonathan A. Patzed., 2001: Ecosystem Changes and Public Health, Baltimore, John Hopling Unit Press (ed).
3. Bradley, D., 1977: Water, Wastes and Health in Hot Climates, John Wiley Chichester.
4. Brown T., S. McLafferty, and G. Moon. 2009. *A companion to health and medical geography*. Chichester, UK: Wiley-Blackwell. DOI: [10.1002/9781444314762](https://doi.org/10.1002/9781444314762)
5. Christaler George and Hristopoles Dionissios, 1998: SpatioTemporal Environment Health Modelling, Boston Kluwer Academic Press.
6. Cliff, A.D. and Peter, H., 1988: Atlas of Disease Distributions, Blackwell Publishers, Oxford.
7. [Emch](#), M., [Root](#), E.D., [Carrel](#), M., 2017, Health and Medical Geography, Fourth Edition Guilford Publications
8. Gatrell, A., and Loytonen, 1998: GIS and Health, Taylor and Francis Ltd, London.
9. Gatrell A., and S. Elliott. 2009. *Geographies of health*. Chichester, UK: Wiley-Blackwell.
10. Gesler, W., and W. Kearns. 2002. *Culture place and health*. Critical Geographies. London: Routledge.
11. Hardham T. and Tannav M., (eds): Urban Health in Developing Countries; Progress, Projects, Earthgoan, London.
12. Jones, K., and G. Moon. 1987. *Health disease and society*. London: Routledge.
13. Meade, M., and R. Earickson. 2000. *Medical geography*. New York: Guildford.
14. Murray, C. and A. Lopez, 1996: The Global Burden of Disease, Harvard University Press.
15. Moeller Dadewed., 1993: Environmental Health, Cambridge, Harvard University Press.
16. Phillips, D. and Verhasselt, Y., 1994: Health and Development, Routledge, London.
17. Shelar, S.K., 2012: Introduction to Medical Geography, Chandralok Pub., Kanpur.
18. Tromp, S., 1980: Biometeorology: The Impact of Weather and Climate on Humans and their Environment, Heydon and Son.

19. मस्कीडी., भैसेएस., २०१४, आरोग्यभूगोल, अथर्वप्रकाशन, पुणे

Websites:

e-PGPathshala: <https://epgp.inflibnet.ac.in/>

MOOCS - NPTEL: <https://nptel.ac.in/>

MOOCS - SWAYAM: <https://swayam.gov.in/>

National Digital Library of India: <https://ndl.iitkgp.ac.in/>

Shivaji University Library (E-Resources): <http://www.unishivaji.ac.in/library/E-Resources>

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B. A. Part-III & B. A. B. Ed.

**Geography (Practical)
(Fundamentals of Map Making and Map Interpretation)**

CBCS PATTERN

(Subject to the modifications to be made from time to time)

Syllabus to be implemented from June 2020 onwards

A) Ordinance and Regulations
(As applicable to degree)
B) Shivaji University, Kolhapur.
Revised Syllabus for

Bachelor of Arts and B. A. B. Ed.
DSE-E233 (Paper XIII or Practical Paper -I)

1. Title: Fundamentals of Map Making and Map Interpretation

Optional Subject under the Faculty of Science

2. Year of Implementation: Revised Syllabi will be implemented from June 2020 onwards.

3. Preamble:

Practical Work is the most important part of Geography. Map is an indispensable tool in Geographical Studies & Research activities. The present syllabus of this paper includes study of maps and their types, Map Projections, S.O.I. Topomaps, I.M.D. Weather Maps, and Cartographic Techniques. In the process of development of science and technology, the changing nature of subject of geography will make aware to the student about the map work and map interpretation. This will further help to improve the use of maps, cartographic techniques and methods in teaching-learning and research work.

4. General objectives of the Paper:

(As applicable to the – paper concerned)

- 1) To introduce the students with the importance of map making and map Interpretation.
- 2) To make the students to understand map, concept of scale and concept of projection.
- 3) To provide training in analysis of landforms.
- 4) To give basic information to the students about S.O.I. topomaps and I.M.D. weather maps.
- 5) To develop the skill of map Interpretation among the students.
- 6) To familiarize the students with the different cartographic techniques and methods used for representation of demographic and physio- socio-economic database.

5. COURSE OUTCOMES

1. In depth understanding the map, concept of scale and projection.
2. Detailed knowledge about the analysis of landforms and its identification.
3. The students are deeply aware about basic information to the students about S.O.I. topomaps and I.M.D. weather maps and obtained the skills about map interpretation.

4. The students are deeply familiar with different cartographic techniques and methods used for representation of demographic and physio- socio-economic database

6. Duration:

- The course shall be a full time course.
- The duration of course shall be of three years, as applicable to the respective degree.

7. Pattern:

Pattern of Examination will be **ANNUAL**.

8. Fee Structure:

As per Government / University rules.

9. Eligibility for Admission:

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination, if any.

10. Medium of Instruction:

The medium of instruction shall be in English or Marathi. (As applicable to the course / programme concerned)

11. Structure of Course: Theory & Practical's

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission / revision of first year syllabus.)

Third Year (Semester VI) Paper No. XIII

Sr. No.	Subjects/Papers	Theory	Practical	Total marks
1	Fundamentals of Map Making and Map Interpretation	-----	100	100

12. Scheme of Teaching and Examination:

(The Scheme of teaching and examination should be given as applicable to the course / paper concerned)

B. A. part –III

Sr. No.	Subjects/Papers	Theory				Examination scheme (Marks)		
		L	T	P	Total	Practical	Term Work	Total (Annual)
1	Fundamentals of Map Making and Map Interpretation	---	---	10	10	100	---	100

13. Scheme of Examination:

- The examination shall be conducted at the end of each academic year.
- The Practical paper shall carry 100 marks.
- The evaluation of the performance of the student in practical papers shall be on the basis of annual practical examination of 100 marks.
- Question Paper will be set in the view of the / in accordance with the entire syllabus and preferably covering each Module of syllabi.

14. Standard of Passing:

(As prescribed under rules & regulation for each degree / program)

15. Nature of Question Paper and Scheme of Marking:

(Module wise weightage of marks should also be mentioned)

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS

(For revised Syllabus)

Sr. No.	Title of Old Paper	Title of New Paper
1	Map Work & Map Reading Paper XIII (Practical Paper -I)	Fundamentals of Map Making and Map Interpretation E 233 or Paper XIII (Practical Paper - I)

17. Special Instructions, If any.

Revised Syllabus for B. A. – III and B. A. B. Ed.

(Introduced from June 2020 Onwards)

Revised Syllabus for

B. A. Part III and B. A. B. Ed. Geography

DSE-E233 or Paper No. XIII (Practical Paper -I)

Title of Paper: Fundamentals of Map Making and Map Interpretation

Module – I: Introduction to Map and Scales:

Periods 50

Marks 15

1.1 Map

1.1.1 Map: Definition and Elements

1.1.2 Classification of Maps: Based on Scale and Purpose

1.2 Scale

1.2.1 Meaning and Definition,

1.2.2 Methods of Representation of scale - Verbal, Numerical and Graphical.

1.2.3 Scale Conversion

1.2.4 Construction of Graphical Scale –

i) Simple (Plane Scale)

ii) Time and Distance Scale

iii) Diagonal Scale

Module II: Map Projection

Periods 50

Marks 15

2.1 Definition, Classification of Projections:

a) Based on the methods of Construction: Perspective and Non-perspective

b) Based on Developable Surface used: Conical, Cylindrical, Zenithal,
Conventional.

c) Based on Position of Tangent Surfaces: Polar, Equatorial (normal), Oblique.

d) Based on Position of view point or light: Gnomonic, Stereographic,
Orthographic

e) Based on Preserved qualities: i) Equal area projection (Homolographic)

ii) Orthographic Projection

iii) Azimuthal Projection (True Bearing
Projection)

2.2 Graphical Construction of the following Projections with Properties and Use:

- i) Zenithal Polar Gnomonic Projection
- ii) Zenithal Polar Equal Area Projection
- iii) Simple Conical Projection with one standard Parallel
- iv) Cylindrical Equal Area Projection
- v) Mercator's Projection and Reference to Universal Transverse Mercator (UTM) Projection

Module – III : Identification, Mapping of Slope, Relief Features and Profiles

Periods 50

Marks 15

3.1 Slope and Gradient

3.1.1 Types of Slope: Gentle, Steep, Even, Uneven, Convex, Concave, Terraced.

3.1.2 Expression of Slopes: a) Gradient b) Degree c) Per Cent d) Mills

3.1.2 Representation of Relief by Contours: Hill, Mountain, Ridge, Cliff, Saddle, Plateau, Knoll, Spur, Col or Pass, Volcanic Col or Crater, Gorge, 'V' Shaped Valley, Waterfall, 'U' Shaped Valley, Cirque, Hanging Valley, Ria Coast, Fiord Coast, Sea cliff.

3.2 Profiles

3.5.1 Superimposed Profile

3.5.2 Composite Profile

3.5.3 Projected Profile

3.5.4 Longitudinal Profile

Module – IV : Topographical Maps

Periods 50

Marks 15

4.1 Indexing of S.O.I. Topographical Map

4.2 Signs, Symbols and Colors used in SOI Toposheet

4.3 Interpretation of S.O.I.'s Topographical Maps

a) Marginal Information

b) Physical environment: Relief, Drainage and Vegetation

c) Cultural environment: Settlements, Transportation and Communication, Irrigation.

d) Land Use

Module V: Weather Instruments and IMD Maps**Periods 70****Marks 20**

5.1 Study of weather Instruments with reference to Principle, Mechanism, and Function

- a) Thermograph
- b) Barograph
- c) Dry and Wet Bulb Thermometer
- d) Cup Anemometer
- e) Rain Gauge

5.2 Isobaric Patterns: Cyclone, Anticyclone, Col, Ridge, Secondary Depression

5.3 Signs and Symbols used in Indian Daily Weather Maps

5.4 Interpretation of Indian Daily Weather Maps

Marginal Information, Pressure, Winds, Clouds, Rainfall, Other Conditions, Sea Condition, Temperature departure from normal

Module VI : Representation Techniques of Statistical Data**Periods 30****Marks 10**

- a) Divided Rectangle
- b) Proportional Circle
- c) Proportional Square
- d) Choropleth Map
- e) Dot Map
- f) Isopleths

Module VII: Journal and Viva Voce**Marks 10****Note :**

1. Use of stencils, log tables, computer and calculator is allowed.
2. Journal should be completed and duly certified by practical in-charge and Head of the Department.

Reference:

1. Bygoot, J: An Introduction to Mapwork and Practical Geography, University Tutorial, London 1964.
2. London 1964.

3. Khan MD. Zulfequar Ahmad : Text Book of Practical Geography, Concept Publishing Company, New Delhi, 1998
4. Mishra, R.P. and Ramesh A. : Fundamentals of Cartography, Concept Publishing Company, New Delhi, 2000
5. Monkhouse F.J. and Wilkison, H.R.: Maps and Diagrams, Mathuen. London, 1971.
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8. Robinson, A.H. and Sale, S.D.: Elements of Cartography, John Witey and Sons, Inc, New York, 1969.
9. Saha, Pijushkanti and Basu Partha : Advanced Practical Geography – A Laboratory Manual Books and Allied (P) Ltd, Kolkata. 2010.
10. Sarkar, Ashis : Practical Geography: A systematic Approach, Orient Longman limited, Calcutta, 1997.
11. Singh, Gopal : Map work and Practical Geography Vikas Publishing House Pvt. Ltd. New Delhi, 1996.
12. Singh, R and Kanaujia, L.R.S.: Map Work and Practical Geography, Central Book Depot, Allahabad.
13. Singh, R. L. and Rana P.B. : Elements of Practical Geography, Kalyani Publishers, New Delhi – Ludhiana, 1998.
14. Aher A. B., Chodhari A. P. & Bharambe S. N. Techniques of Spatial Analysis Prashant Publication Jalgaon 2015
15. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York, 1974.
16. P. Saha and P. Basu (2006): Advanced Practical Geography, Books and Allied Publication, Kolkata, India.
17. Khullar, Essentials of Practical Geography, New Academic Publishing Co, India.
18. Singh L R (2011): Fundamentals of Practical Geography
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२१. कुंभार अर्जुन, प्रात्यक्षिक भूगोल,

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B. A. Part-III & B. A. B. Ed.

Geography (Practical)

(Advanced Tools, Techniques & Field Work in Geography)

CBCS PATTERN

(Subject to the modifications to be made from time to time)

Syllabus to be implemented from June 2020 onwards

**A) Ordinance and Regulations
(As applicable to degree)
B) Shivaji University, Kolhapur.
Revised Syllabus for
Bachelor of Arts and B. A. B. Ed.
DSE-E234 or Paper XIII (Practical Paper -II)
Syllabus to be implemented from June 2020 onwards**

1. Title: Advanced Tools, Techniques & Field Work in Geography

Optional Subject under the Faculty of Science

2. Year of Implementation: Revised Syllabi will be implemented from June 2020 onwards.

3. Preamble:

Modern science & technology have gained momentum. The last couple of Decades have witnessed a sudden expansion of knowledge. In the process of development of science and technology, the changing nature of subject of Geography will make aware to the students about the advanced techniques such as Remote Sensing, GIS, and GPS. The application of computers has revolutionized the use of methods & techniques. The present syllabus of this paper includes study of Aerial Photographs, Remote Sensing, GIS, Application of Computer and use of field work in Geography. This will further help to improve the use of advanced techniques and methods in teaching-learning and research work.

4. General objectives of the Paper:

- 1) To introduce the students with the importance of field work and advanced Techniques in Geography.
- 2) To provide training in application of modern tool and techniques in Geography.
- 3) To enable the students to understand the use of computer for analysis of Geographical data.
- 4) To enhance the skill of the students in instrumental survey.
- 5) To give basic information to the students about Aerial Photographs, Remote Sensing, GIS and GPS.

6. COURSE OUTCOMES

5. In depth understanding the importance of field work and advanced Techniques in Geography.
6. The students are trained to implement modern tool and techniques in Geography.
7. Detailed knowledge about the use of computer for analysis of Geographical data.
8. The students are deeply aware about the basics and trained in instrumental survey.

9. The students are deeply familiar with computer, GIS, GPS and Remote Sensing.

6. Duration:

- The course shall be a full time course.
- The duration of course shall be of three years, as applicable to the respective degree.

7. Pattern:

Pattern of Examination will be ANNUAL.

8. Fee Structure:

As per Government / University rules.

9. Eligibility for Admission:

As per eligibility criteria prescribed for respective degree program and the merit in the qualifying examination, if any.

10. Medium of Instruction:

The medium of instruction shall be in English or Marathi. (As applicable to the course / programme concerned)

11. Structure of Course: Theory & Practical's

(Note – The structure & title of papers of the degree as a whole should be submitted at the time of submission / revision of first year syllabus.)

Third Year (Semester VI) Paper No. XIII

Sr. No.	Subjects/Papers	Theory	Practical	Total marks
1	Advanced Tools, Techniques & Field Work in Geography	-----	100	100

12. Scheme of Teaching and Examination:

(The Scheme of teaching and examination should be given as applicable to the course / paper concerned)

B. A. part –III

Sr. No.	Subjects/Papers	Theory				Examination scheme (Marks)		
		L	T	P	Total	Practical	Term Work	Total (Annual)
1	Advanced Tools, Techniques & Field Work in Geography	---	---	10	10	100	---	100

13. Scheme of Examination:

- The examination shall be conducted at the end of each academic year.
- The Practical paper shall carry 100 marks.

- The evaluation of the performance of the student in practical papers shall be on the basis of annual practical examination of 100 marks.
- Question Paper will be set in the view of the / in accordance with the entire syllabus and preferably covering each Module of syllabi.

14. Standard of Passing:

(As prescribed under rules & regulation for each degree / program)

15. Nature of Question Paper and Scheme of Marking:

(Module wise weightage of marks should also be mentioned)

16. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS

(For revised Syllabus)

Sr. No.	Title of Old Paper	Title of New Paper
1	Advanced Tools, Techniques & Field Work	Advanced Tools, Techniques & Field Work in Geography (DSE-E234 or Paper No. XIV)

17. Special Instructions, If any.

Revised Syllabus for B. A. – III and B. A. B. Ed.

(Introduced from June 2020 Onwards)

Revised Syllabus for

B. A. (Part III) Geography

DSE-E234 or Paper No. XIV (Practical Paper -II)

(ii) Title of Paper - Advanced Tools, Techniques & Field Work in Geography(100 Marks)

Module-I: Introduction to Computer

Lectures- 50

Marks-10

1.1: Introduction to Computer

1.2: Application of computer in geography

1.2.1: Construction of Line Graphs, Bar Graphs

1.2.2: Construction of Pie Diagram and Scatter Diagram

1.3: Application of Excel for Data Analysis

Module:-II: Remote Sensing

Lectures- 50

Marks-15

2.1 Definition of Remote Sensing

2.2 Fundamentals of Remote Sensing: EMR, Sensors and Platforms

2.3 Application of Remote Sensing in Geography

2.4 Aerial photographs and Satellite imagery: Definition, types and difference between them

2.5 Determination of Photo Scale

2.6 Elements of image interpretation

2.7 Identification of Physical and cultural features from Aerial Photographs or Satellite Imagery

Module-III: GIS and GNSS

Lectures- 50

Marks-15

3.1 Geographical Information System (GIS)

3.1.1 Definition and components

3.1.2 GIS Data Structure: Types (spatial and non-spatial), Raster and Vector data

3.1.3 Georeferencing, Digitization, Map Layout Preparation

3.1.4 Application of GIS in Geography: Land use or Land Cover, Urban Sprawl Analysis, Forests Monitoring

3.2 Global Navigation Satellite System

3.2.1 Definition and components

3.2.2: GPS and its applications in Geography

3.2.3 Field work in GPS: Determining latitude, longitude and altitude

3.3: Exercise with Google earth Program.

Module-IV: Statistical methods and techniques

Lectures- 60

Marks-10

4.1 Measures of Central Tendency: Mean, Median and Mode

4.2 Dispersion: Mean Deviation and Standard Deviation

4.3 Association and Correlation: Karl Pearson's Method (Product Moment)

4.4 Analysis of Time Series: Semi-average Method

Module-V: Surveying

Lectures- 60

Marks-15

5.1 Introduction to Survey: Meaning and types

5.2 Preparation of plans of the given area with the following survey method

(Any one methods among them)

A- Plane Table survey (Radial, Intersection, and Traverse method)

B- Dumpy Level survey

C- Theodolite survey

D- Total Station

E- Abony Level Survey

5.3 Preparation of plans Prismatic compass survey (Radical, Intersection and Traverse method)

5.3.1 Types and conversion of bearings.

5.3.2 Correction of bearing.

Module-VI: Project work based on field work any one of following:

Marks-15

Resource survey, Population survey, Agricultural survey, Settlement Survey,

Environmental issues, Industrial visit, Health survey, Natural Hazard or Disaster

1. Project Report must be content of following points:

Introduction – Aims – Objectives - Review of the literature - Data collection –

Methodology - Data Analysis – Interpretation - Findings – Suggestions - Bibliography

2. The duration of the field work should not exceed than 20 days.
4. The word count of the report should be about 8000 to 12,000 excluding figures, tables, photographs, maps, references and appendices.
5. One copy per student of the report as per research standard should be submitted at the time of examination.

Module- VII: Study Tour

Marks-10

Maximum 15 days of Study Tour and preparation of Tour Report.

The Study Tour Report must be content of following points:

Introduction – Necessity – Importance - Route map – Objectives – Methodology - Geographical Profile (Natural, Socio-economic and Cultural) - Geographical importance of visited tourist places – Conclusion – References

Journal and Viva Voce

Marks 10

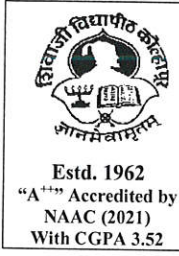
Note :

1. Use of stencils, log tables, computer and calculator is allowed.
2. Journal should be completed and duly certified by practical in-charge and Head of the Department.

Reference:

21. Lo C. P., Albert K. W. Yeung, (2011): Concepts and Techniques of Geographic Information Systems, PHI Learning Private Limited, New Delhi-110001.
22. Bygoot, J: An Introduction to Mapwork and Practical Geography, University Tutorial, London 1964.
24. Khan MD. Zulfequar Ahmad : Text Book of Practical Geography, Concept Publishing Company, New Delhi, 1998
25. Mishra, R.P. and Ramesh A. : Fundamentals of Cartography, Concept Publishing Company, New Delhi, 2000
26. Monkhouse F.J. and Wilkison, H.R.: Maps and Diagrams, Mathuen. London, 1971.
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शिवाजी विद्यापीठ, कोल्हापूर - ४१६ ००४, महाराष्ट्र
दूरध्वनी - ईपीएबीएक्स - २६०९०००, अभ्यासमंडळे विभाग - ०२३१-२६०९०९४



जा.क्र./शिवाजी वि./अ.मं./राज्यशास्त्र/८१
प्रति,

दि.२२/११/२०२२

मा. प्राचार्य/संचालक,
सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,
शिवाजी विद्यापीठ, कोल्हापूर

विषय : बी. ए. भाग १ राज्यशास्त्र कोर्सच्या अभ्यासक्रमाबाबत...
संदर्भ : या कार्यालयाचे पत्र क्र.३३२ दि.१९/०९/२०२२.

महोदय,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, शैक्षणिक वर्ष २०२२-२३ पासून लागू करण्यात आलेल्या बी. ए. भाग १ राज्यशास्त्र कोर्सच्या अभ्यासक्रमामध्ये किरकोळ दुरुस्ती करण्यात आलेली आहे. सोबत सदर अभ्यासक्रमाची प्रत जोडली आहे. तसेच विद्यापीठाच्या www.unishivaji.ac.in (Online Syllabus) या संकेतस्थळावर ठेवण्यात आला आहे.

सदर अभ्यासक्रम सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावी ही विनंती.

कळावे,

आपला विश्वासू,

उपकुलसचिव

सोबत : अभ्यासक्रमाची प्रत.

- प्रत : १. अधिष्ठाता, मानवविज्ञान विद्याशाखा.
२. समन्वयक, राज्यशास्त्र अभ्यास मंडळ.
३. संचालक, परीक्षा व मुल्यमापन मंडळ कार्यालयास.
४. परिक्षक नियुक्ती ए व बी विभागास.
५. बी. ए. परीक्षा विभागास.
६. संगणक केंद्र/आय. टी. सेल विभागास.
७. दूरस्थ व ऑनलाईन शिक्षण विभाग.

माहितीसाठी व पुढील कार्यवाहीसाठी.

Shivaji University, Kolhapur



Accredited By NAAC with 'A++' Grade
CHOICE BASED CREDIT SYSTEM

Revised Syllabus in accordance with NEP, 2020

B.A. Part - I

POLITICAL SCIENCE

(Revised Syllabus to be implemented from June, 2022 onwards)

Political Science
Course Structure (B.A.I)

B.A. Part - I: Political Science

Sr. No	Semester	Paper No.	Title of the Paper
1	I	I	Introduction to Political Science
2	II	II	Indian Constitution

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EQUIVALENCE
Political Science
B.A.I
Political Science
From June, 2022 Onwards

Sr. No.	Semester	Paper No. Title of the Paper Old	Equivalence Paper No. Title of the Course (New)
1	I	I--Introduction to Political Science	I--Introduction to Political Science
2	II	II--Indian Constitution	II--Indian Constitution

**Revised Syllabus for
B. A. Part I Semester I (CBCS)
Political Science
From June, 2022 Onwards
Paper I--- Introduction to Political Science
Credit : 04**

Preamble:

This is an introductory paper deals with basic concepts in Political Science. It also emphasizes on disciplines, sub disciplines in Political Science as well as organs of State and types of Democracy etc. The course will be useful for students to understand human values such as liberty, equality, Justice etc.

Course Outcomes: The student will be able to

- CO – 1 Acquire domain Knowledge
- CO – 2 Understand importance of Political Science
- CO – 3 Understand sub disciplines of Political Science
- CO – 4 Understand Concept of State and Democracy
- CO – 5 Understand Key Concepts of Political Science

Unit	Topic	Periods
Unit 1	Unit 1 - Introduction to Political Science 1.1 Meaning, Definition, Nature, and Scope 1.2 Difference Between Political Science and Politics 1.3 Importance of Political Science	15
Unit 2	Unit 2- Introduction to Sub-disciplines of Political Science 2.1 Political Theory: Meaning, Nature and Scope 2.2 Public Administration: Meaning, Nature and Scope 2.3 International Politics: Meaning, Nature and Scope	15
Unit 3	Unit 3- State and Democracy 3.1 State : Meaning, Definition, Organs of State 3.2 Democracy: Meaning, Types(Direct and Indirect or Representative Democracy), Features of Democracy 3.3 Challenges before Democracy	15
Unit 4	Unit 4- Key Concepts in Political Science 4.1 Liberty: Meaning, and Types 4.2 Equality: Meaning, and Types 4.3 Justice: Meaning, and Types	15

Reference Books:

1. Bhargav and Acharya, 2015, Political Theory An Introduction, New Delhi, Pearson
2. Kapoor A.C., (1997), Principles of Political Science, Premier Publication
3. Goodwin Barbara, 2004, Using Political Ideas, Chichester, John Wiley & Sons.
4. Hampton Jean, 1998, Political Philosophy, New Delhi, Oxford University Press.
5. Kulkarni Mangesh (ed.), 2011, Interdisciplinary Perspectives in Political Theory, New
6. Knowles Dudley, 2001, Political Philosophy, London, Routledge.

7. Pierson Christopher, 2004, The Modern State, London, Routledge.
8. Gokhale, B.K., (1964), Political Science, A.R.Sheth & Co., Mumbai Publication.
9. भार्गव आणि आचार्य (२०१५), राजकीय सिद्धांत परिचय, नवी दिल्ली, पिअर्सन पब्लिकेशन
10. भोळे, भा. ल., (२०१४), राजकीय सिद्धांत आणि विश्लेषण, नागपूर, पिंपळापुरे प्रकाशन
11. जाधव तुकाराम (२०१२), राजकीय सिद्धांत परिचय, पुणे, के सागर पब्लिकेशन
12. शिंदे, ज. रा. प्रा. ए. डी. शेळके, (१९९१), राजकीय सिद्धांत, कैलास प्रकाशन,
13. गर्दे, दि.का., बाचल वि.मा., (१९७९) आधुनिक राजकीय विश्लेषण, कॉन्टिनेंटल प्रकाशन
14. घांगरेकर, चि. ग., (1991) आधुनिक राजकीय विश्लेषण, विद्या प्रकाशन, रुईकर रोड, नागपूर

Journals: Studies in Indian Politics, Economic and Political Weekly (EPW), समाजवादी प्रबोधन पत्रिका, कोल्हापूर, नवभारत, साधना

Additional Readings: Wikipedia, Marathi Vishwakosh

Revised Syllabus for
B. A. Part I Semester II (CBCS)
Political Science
June, 2022 onwards
Paper II --Indian Constitution
Credit : 04

Preamble:

The Indian Constitution is largest written constitution in the world. This paper significantly opens up understanding of the Constitution and the Institutions in their historical and contemporary context. The paper emphasizes on development and making of Indian Constitution. This Course aims to explain Philosophy, Rights and Government machinery in the Indian Constitution.

Course Outcomes:

CO1- The students will get knowledge about making and philosophy of Indian Constitution

CO2- The students will become aware about Fundamental Rights

CO3 - The students will become aware about Directive Principles and Fundamental Duties

CO4- The students will understand about working of Legislature, Executive and Judiciary

CO5- The students will understand about working and role of Judiciary

Unit	Topic	Periods
Unit 1	Unit 1 Making of Indian Constitution 1.1 Historical Background of Indian Constitution –Major Acts of 1909,1919, 1935 1.2: Cabinet Mission 1.3 Constituent Assembly 1.4 Basic Features of Indian Constitution	15
Unit 2	Unit 2: Philosophy of Indian Constitution 2.1 Preamble 2.2 Fundamental Rights 2.3 Directive Principles of State Policy 2.4 Fundamental Duties	15
Unit 3	Unit 3: Legislature and Executive 3.1 Lok Sabha : Composition, Powers & Functions 3.2 Rajya Sabha : Composition, Powers & Functions 3.3 Prime Minister and Council of Ministers: Powers & Functions 3.4 President : Election, Powers & Functions	15
Unit 4	Unit 4 : Judiciary 4.1 Supreme Court: Composition, Powers and Functions 4.2 Judicial Review 4.3 Independence of Judiciary	15

Reference Books:

1. Abbas H. Kumar, 2011, Indian Government & Politics Pearson, New Delhi
2. Austin Granville, (2001), The Indian Constitution-Cornerstone of a Nation, Oxford, New Delhi.
3. Basu D.D., 2018, Introduction to the Constitution of India, 23rd Edition, LexisNexis, Nagpur
4. Chandhoke N. Priyadarshi, 2011, Contemporary India Pearson New Delhi
5. Gupta, D.C. (1994) Indian Government and Politics, Vikas, New Delhi.
6. Josh P.L., & Dave, (1991), Bharatiy Shashanaani Prashan, Vidya, Nagpur.
7. M. Laxmikanth, 2016, Indian Polity, 5th Edition, McGraw Hill Education, New Delhi
8. साठे, सत्यरंजन, (२००२), भारताच्या राज्यघटनेची पन्नास वर्षे, कॉन्टिनेन्टल, पुणे
9. भोळे, देशपांडे (1974) भारताचे शासन व राजकारण, पायल प्रकाशन, नागपूर
10. भोळे भा. ल., (2015), भारतीय गणराज्याचे शासन व राजकारण, पिंपळापुरे प्रकाशन, नागपूर,
11. नवलगुंदकर एस.एन., (1977), भारतीय शासन व राजकारण, नरेंद्र प्रकाशन पुणे
12. घारे, पा.श्री., (1973) भारतीय प्रशासन, महाराष्ट्र विद्यापीठ ग्रंथ निर्मिती मंडळ
13. जोशी, प.ल., (1991), डॉ.दवे, भारतीय शासन व प्रशासन, विद्या प्रकाशन नागपूर
14. चौधरी, रमेश, (1977), भारतीय प्रशासनाची रूपरेषा, राधेय प्रकाशन नागपूर
15. जाधव तुकाराम व शिरपूरकर महेश, (2015), भारतीय राज्यघटना व घटनात्मक प्रक्रिया, भाग 1 आणि भाग २, पुणे, दि युनिक अकाडमी

Journals: Studies in Indian Politics, Economic and Political Weekly (EPW), समाजवादी प्रबोधन पत्रिका, कोल्हापूर, नवभारत, साधना

Additional Readings: Wikipedia, Marathi Vishwakosh

NATURE OF QUESTION PAPER AND SCHEME OF MARKING

B.A. Part- I (Semester-I) Examination -----

Political Science

Paper No. ----- Title -----

Sub code ----- Day & Date : Time: Total Marks : 40

Instructions

1. All questions are Compulsory
2. Figures to right indicates full marks

Q. 1. Complete the following sentences by choosing correct alternatives (MCQ) 05

- 1.
- 2.
- 3.
- 4.
- 5.

Q. 2. Write short notes (any three out of five) 15

- A.
- B.
- C.
- D.
- E.

Q. 3. Write detail answers on any two of the following 20

- A.
- B.
- C.

Internal Evaluation --- 10 Marks

B.A.-I Semester-I - Home Assignment

B.A.-I Semester-II – Unit Test

SHIVAJI UNIVERSITY, KOLHAPUR



Revised Syllabus For

Bachelor of Arts (B. A. POLITICAL SCIENCE)

Faculty of Humanities B. A. Part - II (Sem. III and IV)

CBCS based Syllabus to be implemented from June 2019 onwards.

Equivalence Table

Paper	Old Syllabus		New Syllabus
B.A. Part- II Semester III			
Paper-III	Basic Concepts in Political Science	DSC D7 Paper-III	Political Process in India
Paper-IV	Ancient Indian Political Thought	DSC D8 Paper-IV	Indian Political Thought Part -I
IDS Paper-I	Public Administration	CGE Paper I	Public Administration
Paper	Old Syllabus		New Syllabus
B.A. Part- II Semester IV			
Paper-V	Local Self Government and Movements in Maharashtra	DSC D35 Paper-V	Local Self Government in Maharashtra
Paper-VI	Modern Indian Political Thought	DSC D36 Paper-VI	Indian Political Thought Part -II
IDS Paper-II	Public Administration	CGE Paper II	Public Administration

Course Structure for B.A.II Political Science
B.A.II

Sr. No.	Semester	Name of the Course	Discipline Specific Elective
1.	III	Political Process in India - III	Political Science Course - III
		Indian Political Thought Part I - IV	Political Science Course - IV
		Public Administration - I	Compulsory Generic Elective - I
2.	IV	Local Self Government in Maharashtra - V	Political Science Course - V
		Indian Political Thought Part II - VI	Political Science Course - VI
		Public Administration - II	Compulsory Generic Elective - II

CHOICE BASED CREDIT SYSTEM
SYLLABI AND READING LIST
B.A.II Political Science
Semester III
Discipline Specific Course (D7)
DSC (D7) Paper-III Political Process in India

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Indian Federalism a) Nature & Characteristics of Indian Federalism b) Centre-State Relations : Legislative, Administrative, Financial c) Changing nature of federal System	15	01
2.	Unit 2: Electoral Process in India a) Election Commission : Composition and Functions b) Review of Selected General Election 1952, 1977, 1989, 2014 c) Electoral Reforms - Corruption and Criminalization of Electoral Politics	15	01
3.	Unit 3: Party System of India a) Nature and Changing Pattern of Party System b) Selected National Political Parties: Indian National Congress, Bhartiya Janata Party, Communist Parties (CPM, CPI), Bahujan Samajwadi Party (BSP) c) Rise and Role of Regional Parties	15	01
4.	Unit 4: Issues in Indian Politics a) Caste and Politics of Identity b) Religion and Politics of Communalism c) Regionalism & Challenges before Development	15	01

References

- 1) Basu D. D., Introduction to Indian Constitution, Lexis Nexis (Pub.)
- 2) Laxmikanth M., Indian Polity, Mc Graw Hill Education, New Delhi.
- 3) Dasarathy Bhuyan, 2016, Political Process in India, Cattack Kitab Mandal
- 4) Appadorai, A. (2005). *The Substance of Politics*. N. Delhi: 2005.
- 5) Austin, Granville (1966). *Indian Constitution: A Cornerstone of a Nation*. N. Delhi: OUP.
- 6) Bandyopadhyay, Sekhar (2004). *From Plassey to Partition and After: A History of Modern India*. N. Delhi: Orient BlackSwan.
- 7) Badrinarayan (2011). *The Making of The Dalit Public in North India: Uttar Pradesh 1950- Present*. N. Delhi: OUP.
- 8) Chatterjee, Parth (2010). *Empire and Nation. Essential Writings (1985-2005)*. N. Delhi: Permanent Black.
- 9) Constituent Assembly Debates, Volumes I, II, and III. (Available in ILU Library).
- 10) Dhavan, Rajeev (2008). *Reserved! How Parliament Debated Reservations 1995-2007*. N. Delhi: Rupa & Company.
- 11) Ganguly, Sumit, Larry Diamond & Marc F. Plattner (eds.). (2007). *The State of India's Democracy*. Baltimore: The John Hopkins University Press.
- 12) Guaba, O.P. (2008). *An Introduction to Political Theory*. N. Delhi: Macmillan India Limited. Fourth Edition.
- 13) Gudavathy, Ajay. (2013). *Politics of Post-Civil Society: Contemporary History of Political Movements in India*. N. Delhi: Sage.
- 14) Guru, Gopal & Sundar Surakkai. (2006). *The Cracked Mirror*. N. Delhi: OUP.
- 15) Hasan, Zoya, E. Shridharan & R. Sudarshan (eds.) (2002). *India's Living Constitution: Ideas*,
- 16) भोले भा. ल., भारताचे गणराज्याचे शासन,
- 17) जोशी प. ल. भारतीय संविधान शासन आणि राजकारण, विद्या प्रकाशन नागपुर
- 18) बी. बी. पाटील & उर्मिला चव्हाण, भारतातील राजकीय प्रक्रिया , फडके प्रकाशन, कोल्हापूर.

CHOICE BASED CREDIT SYSTEM

B.A.II Political Science

Semester III

Discipline Specific Course (D8)

DSC (D8) Paper-IV Indian Political Thought Part -I

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Kautilya a) Nature of State - Saptang Theory b) King and His Administration, Council of Ministers c) Mandal Theory & Shadgunya Theory	15	01
2.	Unit 2: Mahatma Phule a) Theory of State – Concept of Balirajya b) Religion – Critique on Brahmanism c) Satyashodhak Samaj & it's Revolutionary Thought	15	01
3.	Unit 3: Justice M. G. Ranade a) Political Liberalism b) Thoughts on Social Reforms c) Economic Ideas	15	01
4.	Unit 4: B. G. Tilak a) Cultural Nationalism b) Concept on Swarajya (Four Fold Program) c) Right to Resist (Pratityogita Sahakarita)	15	01

Reference Books:

- Altekar A.S., State and Government in India, Motilal Banarasidas , Delhi,1958
- Chakrabarty Bidyut & Pandey R.K., Modern Indian Thought, Sage, 2009
- Deshpande G.P. (ed.), *'Introduction', Selected Writings of Jotirao Phule* , Leftword: New Delhi,2002
- Jayswal K.P. Hindu Polity: A Constitutional History of India in Hindu Times, Butterwort, Calcutta, 1924
- Kangale R.P. , Arthshastra of Kautilya , Motilal Banarasidas , Delhi,1965
- Omvedt Gail, Dalit Visions: *The Anti Caste Movement and the Construction of an Indian Identity*, Orient Longman Pvt. Ltd., 2006

- Pantham Thomas & Deutsch (ed.), Political Thought in Modern India, Sage, 1986
- Singh, M.P., Indian Political Thought- Themes and Thinkers, Pearson, New Delhi, 2011
- Verma V.P., Studies in Hindu political Thought and its Metaphysical Foundations, Delhi, 1954
- कीर धनंजय, महात्मा फुले समग्र वाङ्मय, महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ, मुंबई १९८८
- चौसाळकर अशोक, प्राचीन भारतीय राजकीय विचार: प्रवाह व अंतःप्रवाह, प्रतिमा प्रकाशन, पुणे, २०११.
- डोळे ना. य., भारतीय राजकीय विचारवंत, विद्या पब्लिशर्स, औरंगाबाद, १९९९
- भोळे भा.ल., आधुनिक भारतीय राजकीय विचार, पिंपलापुरे, नागपूर, २००३
- चव्हाण, रा. ना., महात्मा फुले यांचा शोध व बोध, चव्हाण प्रतिष्ठान पुणे.
- चव्हाण, रा. ना., महात्मा फुले यांचे नवदर्शन – एक तौलनिक अभ्यास, चव्हाण प्रतिष्ठान पुणे.
- चव्हाण, रा. ना., महात्मा फुले, सत्यशोधक समाज, चव्हाण प्रतिष्ठान पुणे.
- चव्हाण, रा. ना., महात्मा जोतीराव फुलेकृत सार्वजनिक सत्यधर्म (पुस्तक सार)
- बाचल वि. मा. भारतीय राजकीय विचारवंत, के सागर पब्लिकेशन्स, 2006.
- काणे प. सी., राजकीय सिद्धांत आणि राजकीय विचार, पिंपळापुरे आणि कंपनी पब्लिशर्स, नागपूर, २०००.
- बी. बी. पाटील & उर्मिला चव्हाण, आधुनिक भारतीय राजकीय विचार, फडके प्रकाशन, कोल्हापूर

CHOICE BASED CREDIT SYSTEM
B.A.II Political Science
Semester III
Compulsory Generic Elective - I
CGE Paper-I Public Administration

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Public Administration a) Meaning, Definition and Nature b) Scope and Importance c) Public Administration and Private Administration	15	01
2.	Unit 2: Organization a) Meaning, Definition and Bases b) Principles : Hierarchy, Coordination, Span of Control, Centralization and Decentralization c) Units: Line and Staff.	15	01
3.	Unit 3: Public Corporations a) Meaning and Characteristics b) Control over Public Corporations c) Challenges of Privatization	15	01
4.	Unit 4: Changing Perspectives in Public Administration a) Development Administration b) Public Choice Approach c) New Public Management	15	01

Recommended Books

1. Dr.Sharma M. P. : Public Administration in theory and practice, Kitab Mahal, Allahabad.
2. Dr.Avasthi A.; Dr.Maheshwari S., Public Administration, Lakshmi Narain Agrawal,Agra.6
3. Basu R.,Public Administration - Concept and Theories, Sterling Publisher Pvt.Ltd.,New Delhi.

4. White L. D. : Introduction to the study of public administration
5. Bhattacharya M., Restructuring of Public Administration,
Jawahar Publishers, New Delhi.
6. इनामदार ना. र., लोकप्रशासन
7. गर्दे दि. का., लोकप्रशासन तत्त्व व तंत्र
8. प्रा. बी. बी. पाटील लोकप्रशासन, फडके प्रकाशन, कोल्हापूर.
9. व्हा. भा. पाटील, लोकप्रशासन,
10. डॉ. पारस बोरा, प्रा. शाम शिरसाट, लोकप्रशासनशास्त्र, ज्ञानसमिधा पब्लिशिंग
वर्ल्ड, औरंगाबाद.

CHOICE BASED CREDIT SYSTEM
B.A.II Political Science
Semester IV
Discipline Specific Course (D35)
DSC (D35) Paper-V Local Self Government in Maharashtra

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Historical Background of Local Self Government a) Community Development Program b) Balawantrao Mehata Committee c) Vasantao Naik, L. N. Bongirwar, P. B. Patil Committee	15	01
2.	Unit 2: Rural Local Self Government a) Gram Panchayat b) Panchayat Samiti c) Zilla Parishad	15	01
3.	Unit 3: Urban Local Self Government a) Municipal Council b) Municipal Corporation	15	01
4.	Unit 4: Constitutional Amendments & Challenges a) 73 rd Constitutional Amendment Importance & Features b) 74 th Constitutional Amendment Importance & Features c) Challenges before local self Government	15	01

Reference Books:

- Maheshwari S.R. - Local Government in India, 2004
- Gadkari S.S. - Organization of the State Government in Maharashtra, 1965
- Bhat K.S. - Panchayat Raj Administration in Maharashtra, 1974
- Government of Maharashtra - Maharashtra Zilla Parishads and Panchayats Act.1961
- Government of Maharashtra – Municipal Act,1965
- पाटील पी. बी., पंचायत राज्याकडून ग्राम स्वराज्याकडे, समाजवादी प्रबोधिनी, इचलकरंजी
- शिरसाठ शाम, भारतीय स्थानिक स्वशासन, विद्या बुक्स, औरंगाबाद, २०१०

- पाटील शिवाजी आणि लॉडे प्रदीप, महाराष्ट्रातील पंचायतराज व पोलीस प्रशासन, प्ररूप प्रकाशन, कोल्हापूर, २०१६
- यमलवाड वसंत, महाराष्ट्रातील, कल्पना प्रकाशन, नांदेड १९९९
- एखेलीकर रमेश, भारतीय स्थानिक स्वराज्य संस्था, विद्या बुक्स, १९९९.
- बी. बी. पाटील & उर्मिला चव्हाण, महाराष्ट्रातील स्थानिक स्वराज्य संस्था आणि चळवळी, फडके प्रकाशन, कोल्हापूर

CHOICE BASED CREDIT SYSTEM
B.A.II Political Science
Semester IV
Discipline Specific Course (D36)
DSC (D36) Paper-VI Indian Political Thought Part -II

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: M. K. Gandhi a) Satya, Ahimsa, Satyagraha b) Concept of Swaraj – Ramrajya & Trusteeship c) Theory of Gandhi's concept of Religion	15	01
2.	Unit 2: Jawaharlal Nehru a) Democratic Socialism b) Composite Nationalism & Secularism c) Panchsheel & Non-Alignment	15	01
3.	Unit 3: Dr. B. R. Ambedkar a) Critique of Caste System b) Social and Parliamentary Democracy c) State Socialism	15	01
4.	Unit 4: M. N. Roy a) Views on Marxism b) Radical Democracy c) New Humanism	15	01

Reference Books:

- Singh, M.P., Indian Political Thought- Themes and Thinkers, Pearson, New Delhi, 2011
- Chakrabarty Bidyut & Pandey R.K., Modern Indian Political Thought, Sage, 2009
- Pantham Thomas & Deutsch (ed.), Political Thought in Modern India, Sage, 1986
- चौसाळकर अशोक, आधुनिक भारतीय राजकीय विचार: प्रवाह आणि अंतः प्रवाह , प्रतिमा प्रकाशन, पुणे, २०१४
- भोळे भा.ल., आधुनिक भारतीय राजकीय विचार , पिंपलापुरे, नागपूर , २००३
- डोळे ना. य., भारतीय राजकीय विचारवंत , विद्या पब्लिशर्स , औरंगाबाद, १९९९

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- सुमंत यशवंत, महात्मा गांधी : काही अलक्षित पैलू, साधना प्रकाशन, पुणे, २०१५
- बाचल वि. मा. भारतीय राजकीय विचारवंत, के सागर पब्लिकेशन्स, 2006.
- काणे प. सी., राजकीय सिद्धांत आणि राजकीय विचार, पिंपळापुरे आणि कंपनी पब्लिशर्स, नागपूर, २०००.
- चव्हाण, रा. ना., डॉ. बाबासाहेब आंबेडकर यांचा शोध व बोध, चव्हाण प्रतिष्ठान पुणे.
- चव्हाण, रा. ना., डॉ. बाबासाहेब आंबेडकर दलित चळवळ एक मागोवा, चव्हाण प्रतिष्ठान पुणे.
- बी. बी. पाटील & उर्मिला चव्हाण, आधुनिक भारतीय राजकीय विचार, फडके प्रकाशन, कोल्हापूर

CHOICE BASED CREDIT SYSTEM
B.A.II Political Science
Semester IV
Compulsory Generic Elective - II
CGE Paper-II Public Administration

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Personnel Administration a) Meaning, Definitions and Importance b) Recruitment, Training and Promotion c) Political Neutrality of Civil Servants	15	01
2.	Unit 2: Financial Administration in India a) Meaning, Definitions and Importance of Budget b) Preparation, Enactment and Execution of the Budget c) Financial committees – Public Accounts Committee, Estimates Committee, Public Undertakings Committee.	15	01
3.	Unit 3: Delegated Legislation a) Meaning, Definition and Causes of its growth b) Merits and Demerits d) Safeguards against Delegated Legislation	15	01
4.	Unit 4: New Trends in Public Administration a) E-Governance b) Right to Information c) Peoples participation	15	01

Recommended Books

1. Dr.Sharma M. P. : Public Administration in theory and practice, Kitab Mahal, Allahabad.
2. Dr.Avasthi A.; Dr.Maheshwari S., Public Administration, Lakshmi Narain Agrawal,Agra.6
3. Basu R.,Public Administration - Concept and Theories, Sterling Publisher Pvt.Ltd.,New Delhi.
4. White L. D. : Introduction to the study of public administration
5. Bhattacharya M., Restructuring of Public Administration, Jawahar Publishers, New Delhi.
6. इनामदार ना. र., लोकप्रशासन
7. गर्दे दि. का. लोकप्रशासन तत्त्व व तंत्र
8. प्रा. बी. बी. पाटील लोकप्रशासन, फडके प्रकाशन, कोल्हापूर.
9. व्हा. भा. पाटील, लोकप्रशासन,
10. डॉ. पारस बोरा, प्रा. शाम शिरसाट, लोकप्रशासनशास्त्र, ज्ञानसमिधा पब्लिशिंग वर्ल्ड, औरंगाबाद.

SHIVAJI UNIVERSITY, KOLHAPUR.



' A' Reaccredited By NAAC

Revised Syllabus for Bachelor of Arts (CBCS)

B. A. in Political Science

Faculty of Humanities B.A. Part – III

(Sem. V and VI)

Syllabus to be implemented from June, 2020

Shivaji University, Kolhapur
Revised Syllabus from June, 2020
Bachelor of Arts Part III – Political Science - Sem – V and VI

- 1) **Title:** Subject: Political Science (Paper No. 7 to 11) Optional under the Faculty of Arts.
- 2) **Year of Implementation:** Revised Syllabus will be implemented from June 2020 onwards.
- 3) **Duration:** The course shall be a full time course. The duration of course shall be three years.
- 4) **Pattern:** Pattern of examination will be Semester.
- 5) **Eligibility For Admission:** As per eligibility criteria prescribed for each course and the merit list in the qualifying examination.
- 6) **Medium of Instruction:** The medium of instruction shall be English or Marathi
- 7) **Equivalence In Accordance With Titles And Content Of Papers:** For Revised Syllabus As follows:

SEMESTER V

Sr No	Paper No	Title of Old Paper	Paper No	Title of New Paper
1	VII	Modern Government	VII	Political Theory
2	VIII	Public Administration	VIII	Public Administration
3	IX	International Politics	IX	International Politics
4	X	Constitution of United States of America	X	Comparative Politics
5	XI	Classical Western Political Thought	XI	Western Political Thought I

SEMESTER VI

Sr No	Paper No	Title of Old Paper	Paper No	Title of New Paper
1	XII	Modern Political Concepts	XII	Modern Political Concepts
2	XIII	Administrative Thinkers	XIII	Politics and Movements in Maharashtra
3	XIV	Foreign Policy of India	XIV	Foreign Policy of India
4	XV	Constitution of China and Sweden	XV	Comparative Government (With special reference to UK & USA)
5	XVI	Modern Western Political Thought	XVI	Western Political Thought II

Structure of Course

Revised syllabus of B.A. Part III (Political Science) From June, 2020

Semester	Paper No.	Title of the Paper	Theory Marks	Term work
Sem V	Paper VII	Political Theory	40	10
	Paper VIII	Public Administration	40	10
	Paper IX	International Politics	40	10
	Paper X	Comparative Politics	40	10
	Paper XI	Western Political Thought I	40	10
Sem-VI	Paper XII	Modern Political Concepts	40	10
	Paper XIII	Politics and Movements in Maharashtra	40	10
	Paper XIV	Foreign Policy of India	40	10
	Paper XV	Comparative Government (With special reference to UK & USA)	40	10
	Paper XVI	Western Political Thought II	40	10

Revised Syllabus B.A. III- Political Science (CBCS) From June 2020

Semester - V Paper No. VII DSE E-76

Title: Political Theory

Course Outcome:

- 1) Getting basic knowledge of Political Theory
- 2) Understanding of approaches to Political Theory
- 3) Knowing Behavioural movement in Political Science
- 4) Acquiring knowledge about concepts of Power, Authority and Legitimacy

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Political Theory. a. Nature and scope of Political Theory. b. Political Philosophy and Political Theory c. Decline, Resurgence and Importance of Political Theory.	15	01
2.	Unit 2: Approaches to Political Theory a) Normative Approach b) Empirical Approach	15	01
3.	Unit 3: Behaviouralism & Post Behaviouralism a) Behavioral Approach—Meaning, Characteristics & Evaluation b) Post Behavioral Approach –Meaning, Characteristics & Evaluation	15	01
4.	Unit 4: Concepts in Political Theory a) 1)Political Power—Meaning, &Types, 2)Theories of Political Power—Psycho-Analytical Theory, Sociological Theory, Liberal Democratic Theory, Marxian Theory b) Authority –Meaning & Types c)Legitimacy –Meaning , Basis of Legitimacy	15	01

References:

- 1) Freidrich C. H. An Introduction to Political Theory.
- 2) Ernest Barkar, Principles of Social & Political Theory, Oxford, 1976
- 3) Ashirvadam & Misra, Political Theory, S Chand, Delhi 2004.
- 4) Dr. A.H. Doctor, Issues in Political Theory
- 5) Lass let Peter & Runciman W.C.(ed) Philosophy, Politics & Society, (3rd Series) Oxford, Blackwell, 1976
- 6) Mac Iver, Modern State, OUP, 1926
- 7) Verma S.P. Modern Political Theory, Vikas, Delhi, 1913
- 8) Carnoy, State and Political Theory, Princeton, 1984
- 9) Strauss L. What is political Philosophy & other essays, Glencoe, Free Press, 1959.
- 10) A Brecht, Political Theory-Foundations of 20th century Political Theory, Bombay, 1965.
- 11) David Held, Political Theory & Modern State, Polity, 1984.
- 12) Cresingay D. and Minogue (Ed) Contemporary Political Thinkers, Methuan, London, 1975.
- 13) Quinton A (Ed) Political Philosophy, Oxford, 1967.
- 14) Bena and Peters Social Principles & Democratic State, George Alien & Unwin, 1959
- 15) Einstein Mathew, Kenny Micheal,(ED) Political Ideologies: A Reader & Guide OUP; 2005

- 16) Bhargava Rajeev & Acharya Ashok, Political Theory, Pearson, 2015
- 17) गर्दे दि.का., राजकीय सिद्धांत, महाराष्ट्र विद्यापीठ ग्रंथ निर्मिती मंडळ, नागपूर, १९७८
- 18) भोळे भास्कर, राजकीय सिद्धांत आणि विश्लेषण, श्रीविद्या, नागपूर, २००४
- 19) देव विजय आणि इतर, राजकीय संकल्पना आणि सिद्धांत, डायमंड, पुणे, २०१५

Semester - 5 Paper No. VIII DSE E-77
Title: Public Administration

Course Outcome:

- 1) Acquiring information about various concepts in Public Administration.
- 2) Getting knowledge about Organization, its Bases, Principles and Units.
- 3) Getting acquainted with the budgetary process in India.
- 4) Understanding the interface between citizens and Public Administration; and other agencies in society and Public Administration.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Introduction to Public Administration a) Meaning, Nature and Scope b) Politics and Administration Dichotomy c) Evolution of the Discipline and its Present Status	15	01
2.	Unit 2: Organization a) Meaning and Bases of Organization b) Principles of Organization c) Units of Organization	15	01
3.	Unit 3: Financial Administration: a) Meaning and definition of Budget b) Budgetary Process in India c) Parliamentary Control of the Budget in India.	15	01
4.	Unit 4: Accountability and Control a) Concepts of Accountability and Control b) Legislative, Executive and Judicial Control over Public Administration c) Citizen and Administration d) Citizen's Charter, Role of: Media, Interests Groups, Voluntary Organizations, and Civil Society.	15	01

Recommended Books

1. Dr.Sharma M. P. : Public Administration in theory and practice, Kitab Mahal, Allahabad.
2. Dr.Avasthi A.; Dr.Maheshwari S., Public Administration, Lakshmi Narain Agrawal,Agra.6
3. Basu R.,Public Administration - Concept and Theories, Sterling Publisher Pvt.Ltd.,New Delhi.
4. White L. D. : Introduction to the study of public administration
5. Bhattacharya M., Restructuring of Public Administration, Jawahar Publishers, New Delhi.
6. Laxmikanth M, Public Administration, McGraw Hill Education (India) Private Limited, Chennai.
7. Prof. Fadia B. L. and Fadia K, Public Administration in India, Sahitya Bhawan, Agra.
- 8 बोरा पारस, शिरसाट शाम, लोकप्रशासनशास्त्र,ज्ञानसमिधा,औरंगाबाद
- 9 गर्दे दि.का. लोकप्रशासन तत्व व तंत्र, नागपूर ,1980
- 10 इनामदार एन.आर.लोकप्रशासन, महाराष्ट्र विद्यापीठ ग्रंथ निर्मिती मंडळ ,नागपूर,1975
- 11 माहेश्वरी श्रीराम, भारतीय प्रशासन ,(अनुवाद : साधना कुलकर्णी), ओरिएन्ट लॉगमन,हैद्राबाद,2002

- 12 काणे प.सि.,लोकप्रशासनाचे सिद्धांत ,विद्या प्रकाशन,नागपूर
- 13 भोगले शांताराम ,लोकप्रशासन सिद्धांत व कार्यपद्धती ,कैलाश ,औरंगाबाद
- 14 दर्शनकार अर्जुन, लोकप्रशासन, कैलाश ,औरंगाबाद

Semester – V - Paper No. IX DSE E-78
Title: International Politics

Course Outcome :

- 1) Getting acquainted with the concepts and dimension of International Politics.
- 2) To understand main theories of International Politics.
- 3) To know the working of international and regional organizations and the new world order that emerged after the end of cold war.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit – 1. Nature of International Politics a) Meaning, Nature and Scope of International Politics b) Theories of International Politics: Idealist and Realist.	15	01
2.	Unit – 2. National Power : a) Meaning of National Power b) Elements of National Power.	15	01
3.	Unit – 3. Diplomacy : a) Meaning of Diplomacy, b) Kinds and Functions of Diplomacy.	15	01
4.	Unit – 4. New World Order : a) Post Cold-War International Order b) Regional Organizations: European Union, ASIAN c) Economic Organizations: WTO and BRICS	15	01

Recommended Books:

1. Vinoy Kumar Malhotra - International Relation (New Delhi: Anmol Publication 1999)
2. Joshna Goldstein - International Relation (New York: Longman, 2003)
3. Hans Morgenthau - Politics Among Nation (New York: Alfred Knopf, 1985)
4. देवळाणकर शैलेंद्र, आंतरराष्ट्रीय संबंध, विद्या, औरंगाबाद, 2005
5. रायपूरकर वसंत, आंतरराष्ट्रीय संबंध, मंगेश, नागपूर, 2006
6. फादिया बी.एल. आंतरराष्ट्रीय राजनीती, साहित्यभवन, आग्रा, 2004
7. लोटे रा.ज., आंतरराष्ट्रीय संबंध, पिंपळापुरे, नागपूर, 2018
8. पाटील वा.भा., आंतरराष्ट्रीय संबंध, प्रशांत, जळगाव,
9. तोडकर बी.डी., आंतरराष्ट्रीय संबंध—महत्वाच्या संकल्पना, डायमंड, पुणे, 2012
10. वराडकर र.घ., आंतरराष्ट्रीय संबंध आणि राजकारण, विद्या, नागपूर

Semester – V Paper No. X DSE E-79
Title : Comparative Politics

Course Outcome:

- 1) Students will be familiar with basic theory of comparative politics
- 2) Students be able to understand constitutionalism, federalism.
- 3) Students shall understand party system and pressure groups and its functioning.
- 4) Students shall understand classification of political parties and pressure groups.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit – 1. Comparative Politics a) Meaning, Nature and Scope of Comparative Politics b) Structural Functional Approach to the study of Comparative Politics c) System Approach to the study of Comparative Politics d) Marxian Approach to the study of Comparative Politics	15	01
2.	Unit – 2. Constitutionalism a) Meaning and Definition Constitutionalism b) Constitutionalism in United Kingdom c) Constitutionalism in United States of America	15	01
3.	Unit – 3. Federalism a) Meaning and Nature federalism b) Essential Conditions of Federation c) Challenges before Federation	15	01
4.	Unit – 4. Political Party and Pressure Groups a) Meaning and types of Political Party b) Meaning and Classification of Pressure Groups c) Role of Political Parties and Pressure Groups	15	01

Recommended Books:

1. Harry Eckstein & David E. Apter- Comparative Politics, A Reader (New York, The Free Press, 1969.
2. J Blondel- An Introduction to comparative Government, London, 1969.
3. Herman Finer- The theory and Practice of Modern Government, Mathuen and Company, London 1969
4. S. R Maheshwari – Comparative Government and Politics ,Laxmi Narayan Agrwal, Agra, 1983
5. V.N Khanna– Major Political Systems, Chand and Chand company , Delhi
6. J.C Johari – Comparative Politics, sterling Delhi.
7. VidyaBhushan – Comparative Politics , Atlantic Publication and Distributers.
8. H,Denis Derbyshire, Ian Derbyshire – Political system of the world, Alied Publishers.Ltd.
9. D. Deol – Comparative Government and Poltics, sterling Publisher Pvt. Ltd
10. V.D. Mahajan- Select Modern Government, S Chand &Co.Ltd, New Delhi

- 11 लोटे रा.ज, तुलनात्मक शासन आणि राजकारण ,पिंपळापुरे ,नागपूर, 2015
- 12 गांधीजी राय ,तुलनात्मक शासन एवं राजनीती,भारती भवन पब्लिशर, 2017
- 13 जोहरी जे.सी.. तुलनात्मक राजनीती,स्टर्लिंग ,2008
- 14 गाबा ओमप्रकाश, तुलनात्मक राजनीती कि रूपरेखा, मयूर बुक्स, 2018
- 15 बिस्वाल तपन, तुलनात्मक राजनीती-संस्थाए और प्रक्रियाए,द ओरिएन्ट ब्लॉकस्वान, 2016
- 16 गर्ग सुषमा,तुलनात्मक शासन एवं राजनीती,अग्रवाल प्रकाशन ,2012
- 17 देशपांडे म.द., शासन राज्यपद्धती तौलनिक विचार,महाराष्ट्र विद्यापीठ ग्रंथ निर्मिती
- 18 घांगरेकर चि.ग.तुलनात्मक शासन आणि राजकारण
- 19 शास्त्री चंद्रशेखर ,प्रमुख देशांची शासन प्रणाली ,पायल,नागपूर
- 20 देशमुख अलका ,तौलनिक शासन आणि राजनीती,नाथ,नागपूर
- 21देवगावकर रा.गो.आधुनिक राजकीय व्यवस्था, साईनाथ नागपूर

Semester – V, Paper No. XI DSE E-80

Title of the Paper: Western Political Thought – I

Course Outcome :

- 1) Students will get acquainted with the western tradition from Plato to Rousseau.
- 2) Students will understand the evolution of western Political idea.
- 3) Students will be able to study historical aspects of western state and society.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit – 1. Plato	15	01
2.	Unit – 2. Aristotle	15	01
3.	Unit – 3. Machiavelli	15	01
4.	Unit – 4. Rousseau	15	01

Recommended Books:

- 1) Francis W. Coker - Recent Political Thought, The world Press Pvt. Ltd.
- 2) George H. Sabine - A History of Political theory, George G. Harrap&comoany Ltd. London.
- 3) C.L. Wayper - Political thought, S.T. Pauls, Honce Warwick lane London, Ec. 4
- 4) V.D. Mahajan & R.R. Seth, Recent Political Thought, Premier Publishing Co, Delhi.
- 5) William Ebenstein, Great Political Thinkers – Plato To the present Modern Political thought, The great Issues, IInd Edition, Oxford & IBH Publishing company.
- 6) Radhey Sham Chourasia, History of western Political thought – Volume I & II
- 7) Suda J.P., History of Political Thought, K.Nath, Meerut, Vol. 1 to 3, Reprint, 2017

- 8 शृंगारपुरे अरविंद, भारतीय तथा पाश्चिमात्य राजकीय विचार, मंगेश, नागपूर
- 9 भोळे भा.ल., भारतीय आणि पाश्चिमात्य राजकीय विचार, पिंपळापुरे, नागपूर
- 10 गर्दे दि.का., पाश्चिमात्य राजकीय विचार प्रवाह, महाराष्ट्र राज्य ग्रंथ निर्मिती, पुणे
- 11 डोळे ना.य., राजकीय विचारांचा इतिहास, कॉन्टीनेटल, पुणे
- 12 कुलकर्णी सुधाकर, निवडक राजकीय विचारवंत, विद्याभारती, लातूर

B. A. Part III – Political Science - Semester – VI
Semester VI, Paper No. XII DSE E- 201
Title of the Paper: Modern Political Concepts

Course Outcome

1. Student will know modern concepts such as Feminism, Multiculturalism, Environmentalism and Civil Society etc.
2. This will enable students to have comprehensive idea of contemporary scenario in political science.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit – 1. : Feminism I. Meaning, Origin and Development of Feminism. II. Characteristic of Feminism III. Theories of Feminism	15	01
2.	Unit – 2. Multiculturalism I. Meaning and Development of Multiculturalism II. Will Kymlicka's theory of Multiculturalism III. Nationalism and Multiculturalism	15	01
3.	Unit – 3. Environmentalism I. Origin and Causes of Environmentalism II. Characteristics of Environmentalism III. International Efforts for protection of Environment IV. Global Warming	15	01
4.	Unit – 4. Civil Society I. Meaning and Development of Civil Society II. Civil Society—Liberalism and Political Economy III. Locke, Hegel, Marx and Antonio Gramsci on Civil Society IV. Post Colonialism and Civil Society	15	01

Recommended Books:

- 1 Kymlika Will, Multicultural Citizenship :Liberal Theory of Minority Rights,Clarendon Press, 1995
- 2 Kymlika Will, Contemporary Political Philosophy, Oxford,2001
3. Bhargava Rajeev and Acharya Ashok, Political Theory : An Introduction, 1st. Edition, Pearson, New Delhi,2008
- 4 राठी शुभांगी डी.आधुनिक राजकीय विचारप्रणाली, अथर्व,धुळे, 2014
- 5 भार्गव राजीव ,आचार्य अशोक, (संपा.)राजकीय सिद्धांत परिचय (अनुवाद:हेमंतखानझोडे) पिअर्सन ,नवी दिल्ली, 2011
- 6 खेडेकर दिगंबर ,राजकीय सिद्धांतातील मुलभूत संकल्पना, चिन्मय ,औरंगाबाद,2009
- 7 भागवत वंदना ,संदर्भासहित स्त्रीवाद
- 8 भागवत विद्युत , स्त्रीवादी सामाजिक विचार : सहा महत्वाच्या विचारवंत स्त्रियांचा परिचय,डायमंड,पुणे,2008

Semester VI Paper N0. XIII DSE E- 202

Title of the Paper: Politics and Movements in Maharashtra

Course Outcome :

- 1) Student will know the Political System of Maharashtra.
- 2) They will understand the process of formation of Maharashtra State
- 3) Student will know the movements, pressure groups and political parties in Maharashtra.
- 4) This will provide comprehensive idea of contemporary politics of Maharashtra.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit -1 Samyukta Maharashtra a. Movement of Samyukta Maharashtra and formation of Maharashtra State b. Developments in Politics of Maharashtra after 1960 c. The Politics of Regional Imbalance – Cooperative Sector and Economy	15	01
2.	Unit – 2 Organization of State Government a. Executive: Governor, Chief Minister and Council of Ministers – Composition, Powers and Functions b. Legislature: Legislative Assembly and Legislative Council- Composition, Powers and Functions.	15	01
3.	Unit – 3. Politics of Maharashtra a. Major Political Parties in Maharashtra b. Regional Parties in Maharashtra c. Coalition Politics	15	01
4.	Unit – 4. Political and Social Movements in Maharashtra a. Peasant Movements b. Dalit Movements c. Superstition Eradication Movements d. Student Movements	15	01

References:

- 1- Usha Thakkar and Mangesh Kulkarni (Ed.) Politics in Maharashtra
- 2- M.S.A. Rao/Francis Frankel (Ed.) Politics in Maharashtra – Vol 2. Oxford Uni. Press, 1990.
- 3 Murugkar Lata, Dalit Panther Movement in Maharashtra :A Sociological Appraisal, South Asia Books, 1991
- 4 Shah Ghanshyam, Social Movements in India, Sage, 1991
- 5 जैन अशोक, महाराष्ट्राचे शासन आणि राजकारण, सेठ, मुंबई, 1998
- 6 पळशीकर सुहास आणि बिरमल नितीन, महाराष्ट्राचे राजकारण, प्रतिमा, पुणे, 2005
- 7 पळशीकर सुहास आणि कुलकर्णी सुहास, महाराष्ट्रातील सत्तासंघर्ष, समकालीन प्रकाशन, पुणे, 2007
- 8 भोळे भा.ल., यशवंतराव चव्हाण विचार व राजकारण, साकेत, औरंगाबाद, 2007

- 9 जाधव तुकाराम आणि इतर (संपादक), महाराष्ट्राचे राजकारण नव्या वळणावर? ,युनिक अकाडेमी, 2015
- 10 काळे भगवानराव, संयुक्त महाराष्ट्र:काल आणि आज ,1998
- 11 फडके य.दि.व्यक्ती आणि विचार, श्रीविद्या, पुणे
- 12 सुमंत यशवंत आन डी.डी.पुंडे (संपा.) महाराष्ट्रातील जातीव्यवस्थात्मक विचार,प्रतिमा ,पुणे
- 13 व्होरा राजेंद्र (संपा.) परंपरा आणि आधुनिकता, प्रतिमा ,पुणे
- 14 भोळे भा.ल., बेडकिहाळ किशोर (संपा.) बदलता महाराष्ट्र, आंबेडकर अकादमी,सातारा,2003
- 15 चौसाळकर अशोक , कॉ.श्रीपाद अमृत डांगे,कॉ.गोविंद पानसरे अमृत महोत्सव समिती,कोल्हापूर,2011

Semester VI Paper No. XIV DSE E- 203

Title: Foreign Policy of India

Course Outcome:

1. Student will understand, 'what is Foreign Policy and what are the objectives of Foreign Policy.
2. This will provide comprehensive idea of foundation of Indian Foreign Policy
3. Student will come to know India's relation with super powers and neighboring countries.
4. It will bring attention of the students towards the current national and international political situation and foreign policy.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Foreign Policy a) Meaning and Objectives of Foreign Policy. b) Determinants and Basic Principles of Indian Foreign Policy	15	01
2.	Unit – 2. India and Global Powers a) India – US Relations b) India – USSR and Russia Relations c) India – China Relations	15	01
3.	Unit – 3. India's Relations with her Neighbors a) India – Pakistan b) India – Bangladesh c) India – Shrilanka	15	01
4.	Unit – 4. Continuity and Change in India's Foreign Policy a) Foreign Policy of India in Cold War Era b) Foreign Policy of India in Post Cold War Era	15	01

Recommended Books :

1. Vinoy Kumar Malhotra - International Relation (New Delhi: Anmol Publication 1999)
2. Joshna Goldstein - International Relation (New York: Longman, 2003)
3. Hans Morgenthau - Politics Among Nation (New York: Alfred Knopf, 1985)
4. देवळाणकर शैलेंद्र, आंतरराष्ट्रीय संबंध, विद्या, औरंगाबाद, 2005
5. रायपूरकर वसंत, आंतरराष्ट्रीय संबंध, मंगेश, नागपूर, 2006
6. फादिया बी.एल. आंतरराष्ट्रीय राजनीती, साहित्यभवन, आग्रा, 2004
7. लोटे रा.ज, आंतरराष्ट्रीय संबंध, पिंपळापुरे, नागपूर, 2018
8. पाटील वा.भा., आंतरराष्ट्रीय संबंध, प्रशांत, जळगाव,
9. तोडकर बी.डी., आंतरराष्ट्रीय संबंध—महत्वाच्या संकल्पना, डायमंड, पुणे, 2012
10. वराडकर र.घ., आंतरराष्ट्रीय संबंध आणि राजकारण, विद्या, नागपूर
11. देवळाणकर शैलेंद्र, समकालीन जागतिक राजकारण व भारताचे परराष्ट्र धोरण, क्रोनिकॅल, 2012
12. देवळाणकर शैलेंद्र, भारत व जग, सकाळ, पुणे, 2014

13 देवळाणकर शैलेन्द्र, भारताचे परराष्ट्र धोरण : सातत्य व स्थित्यंतर , प्रतिमा पुणे, 2007

Title: Comparative Government (With special reference to UK & USA)**Course Outcome:**

1. To familiarizes students with composition, functions, and law making process of legislative bodies in UK and USA.
2. To introduce the students with execution process of laws in UK and USA
3. To introduce the Judicial System in UK and USA and procedure of adjudication
4. Students will understand the role of Pressure Groups in the Politics of UK and USA.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: Legislature a) Parliament of UK- Composition, Powers and Functions b) Congress of USA- Composition, Powers and Functions	15	01
2.	Unit – 2 Executive a) King, Prime Minister and Council of Minister in UK b) The President, Vice President, and Secretaries in USA	15	01
3.	Unit – Judiciary a) House of Lords and Supreme Court of Judicature in UK b) Supreme Court of USA- Composition, Powers and Functions	15	01
4.	Unit – 4 Political Party and Pressure Group a) Political Party system in UK- Conservative Party and Labour Party b) Political Party System in USA- Democratic and Republican Party c) Pressure Groups in UK and USA	15	01

Recommended Books :

1. **Harry Eckstein & David E. Apter-** Comparative Politics, A Reader (New York, The Free Press, 1969.
2. **J Blondel-** An Introduction to comparative Government, London, 1969.
3. **V.D. Mahajan-** Select Modern Government, S Chand & Co. Ltd, New Delhi
4. **Herman Finer-** The theory and Practice of Modern Government, Mathuen and Company, London 1969
5. **S. R Maheshwari –** Comparative Government and Politics ,Laxmi Narayan Agrwal, Agra, 1983
6. **V.N Khanna –** Major Political Systems, Chand and Chand company , Delhi
7. **J.C Johari –** Comparative Politics, sterling Delhi.
8. **Vidya Bhushan –** Comparative Politics , Atlantic Publication and Distributers.
9. **H,Denis Derbyshire, Ian Derbyshire –** Political system of the world, Alied Publishers.Ltd.
10. **D. Deol –** Comparative Government and Poltics, sterling Publisher Pvt. Ltd
11. लोटे रा.ज. तुलनात्मक शासन आणि राजकारण ,पिंपळापुरे ,नागपूर, 2015
12. गांधीजी राय ,तुलनात्मक शासन एवं राजनीती,भारती भवन पब्लिशर, 2017
13. जोहरी जे.सी.. तुलनात्मक राजनीती,स्टर्लिंग ,2008
14. गाबा ओमप्रकाश, तुलनात्मक राजनीती कि रूपरेखा, मयूर बुक्स, 2018

- 15 बिस्वाल तपन, तुलनात्मक राजनीती-संस्थाए और प्रक्रियाए, द ओरिएन्ट ब्लॉकस्वान, 2016
- 16 गर्ग सुषमा, तुलनात्मक शासन एवं राजनीती, अग्रवाल प्रकाशन, 2012
- 17 देशपांडे म.द., शासन राज्यपद्धती तौलनिक विचार, महाराष्ट्र विद्यापीठ ग्रंथ निर्मिती
- 18 घांगरेकर चि.ग. तुलनात्मक शासन आणि राजकारण
- 19 शास्त्री चंद्रशेखर, प्रमुख देशांची शासन प्रणाली, पायल, नागपूर
- 20 देशमुख अलका, तौलनिक शासन आणि राजनीती, नाथ, नागपूर
- 21 देवगावकर रा.गो. आधुनिक राजकीय व्यवस्था, साईनाथ नागपूर

Semester VI Paper No. XVI DSE E- 205**Title: Western Political Thought- II****Course Outcome:**

1. The students will understand Political views of J. S. Mill, Karl Marx, Gramsci & Hannah Arendt
2. The students will get acquainted with various aspects of state and society with western perspective.

Sr. No.	Unit No. and Title of the Unit	Teaching Hours	Credits
1.	Unit 1: J.S. Mill	15	01
2.	Unit – 2 Karl Marx	15	01
3.	Unit 3 – Antonio Gramsci	15	01
4.	Unit – 4 Hannah Arendt	15	01

Re commended Books :

- 1) Francis W. Coker - Recent Political Thought, The world Press Pvt. Ltd.
- 2) George H. Sabine - A History of Political theory, George G. Harrap & comoany Ltd. London.
- 3) C.L. Wayper - Political thought, S.T. Pauls, Honce Warwick lane London, Ec. 4
- 4) V.D. Mahajan & R.R. Seth, Recent Political Thought, Premier Publishing Co, Delhi.
- 5) William Ebenstein, Great Political Thinkers – Plato To the present Modern Political thought, The great Issues, IInd Edition, Oxford & IBH Publishing company.
- 6) Radhey Sham Chourasia, History of western Political thought – Volume I & II
- 7) Suda J.P., History of Political Thought, K.Nath, Meerut ,Vol. 1 to 3 ,Reprint,2017
- 8) Steve Buckler Hannah Arendt and Political Theory : Challenging the tradition, Edinburg University Press, 2011
- 9) Murray Forsyth and Muurice Keens- Soper The Political Classics : Green to Dworkin, OUP, 1996
- 10) Weisman Tama , Hannah Arendt and Karl Marx : On Totalitarianism and the Tradition of Western Political Thought
- 11 Buttigieg Joseph, (Ed.) Antonio Gramsci –Prision Notebooks, Columbia University Press,2011
- 12 Arendt Hannah, The Origins of Totalitarianism, Schocken Books,1951
- 13 शृंगारपुरे अरविंद, भारतीय तथा पाश्चिमात्य राजकीय विचार,मंगेश,नागपूर
- 14 भोळे भा.ल., भारतीय आणि पाश्चिमात्य राजकीय विचार, पिंपळापुरे, नागपूर
- 15 गर्दे दि.का., पाश्चिमात्य राजकीय विचार प्रवाह, महाराष्ट्र राज्य ग्रंथ निर्मिती , पुणे
- 16 डोळे ना.य.,राजकीय विचारांचा इतिहास,कॉनंटीनेटल,पुणे
- 17 कुलकर्णी सुधाकर ,निवडक राजकीय विचारवंत, विद्याभारती ,लातूर
- 18 देव विजय आणि इतर , पाश्च्यात्य राजकीय विचारवंत, डायमंड,पुणे,2012
- 19 चौसाळकर अशोक ,माक्सवाद –उत्तरमाक्सवाद,प्रतिमा,पुणे,2010

Ref. No./SU/BOS/Humanities/ 332

Date :19/09/2022

To,

The Principal,
All Concerenced Affiliated Colleges/Institutions,
Shivaji University, Kolhapur

Subject : Regarding syllabi of B. A. Part I (sem. I & II) degree programme
under the Faculty of Humanities as per National Education Policy, 2020 (NEP)

Sir/Madam,

With reference to the subject mentioned above I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi, equivalence and nature of question paper of B. A. Part I (Sem. I & II) under the Faculty of Humanities as per National Education Policy, 2020. (NEP)

Compulosry Subject		Optional Subject		
English	Hindi	Marathi.	Hindi	English
Kannada	Urdu	Sanskrit (L)	Sanskrit (H)	Urdu
Sanskrit	Marathi	Ardhamagadhi	Linguistics	Kannada
Ardhamagadhi	Scientific Method	Sociology	Philosophy	Economics
S. T. D.		Political Science	Psychology	History
Additional English		N.C.C. (Military Science)	N. S. S.	Defence Study (Entire)
		Geography		

This syllabi shall be implemented from the academic year 2022-23 onwards . A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

The question paper on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October/November 2022 & March/ April, 2023. These chances are available for repeater students, if any.

For students of Distance Education this syllabi be implemented from the academic yerar 2022-23.

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully

Dy. Registrar

Encl : As above

Copy to,

For Information and necessary action.

Dean, Faculty of Humanities.	Computer Center/I. T. Cell.
Co-Ordinetar, B.O.S./Ad-hoc Board under faculty of Humanities.	Eligibility Section.
Director, Board of Examinations & Evaluation	P. G. Seminar Section.
Appointment Section A & B	Distance Education Section.
B. A. Exam. Section.	Affiliation Section (T. 1 & T 2)
P. G. Admission Section.	

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited 'A' By NAAC

Revised Draft Syllabus For

**B.A.PART - I
SEM - I & II (SOCIOLOGY)**

Syllabus to be implemented from 2022-2023 onwards.

Draft Syllabus
B.A. PART – I SEM – I
DSC-B2, SOCIOLOGY – I (50 Marks 4 Credits)
INTRODUCTION TO SOCIOLOGY PAPER - I

Module-I The Nature of Sociology:

- A) Sociology : Definition and subject matter of sociology
- B) Origin and Development of Sociology : A Brief outline
- C) Importance of Sociology

Module –II Basic Concepts in Sociology:

- A) Social Interaction : Meaning and Types
- B) Society : a) Meaning and Characteristics of Human society
b) Types of Society

Module -III Social Institution:

- A) Social Institution : Meaning & Characteristics
- B) Importance of Social Institutions
- C) Social Institutions and their Functions (Family, Marriage, Religion, Education)

Module –IV Social Groups:

- A) Social Groups - Meaning and Characteristics
- B) Bases of Classification of Social Groups
- C) Primary and Secondary Groups

Books Recommended :

Brom, Leonard and Selznick Phillip : Sociology, Raw, Peterson and company, New York, 1957

Chinoy, Ely : Society - An Introduction to sociology, Random House, 1961.

David Dressler and Wills, W.M. : Sociology - The study of Human Interaction, Alfred A Knof, New York, 1976.

Davis, Knigsley : Human Society, Macmillan, New York, 1948.

Harlambos, M. and R.M. Heald : Sociology - Themes and perspectives, OxfordUniversity Press, New Delhi, 1994.

Horton and Hunt : Sociology, MacGraw Hill, Tokyo, 1976.

Inkeles Alex : What is Sociology? : Intlewood Cliffs, Inc., prentice Hall, New Delhi 1964

Johnson, Harry M : Society - An Introductory Analysis, Mac Millan & Co. Ltd., London, 1965.

Rawat, H. K. : Sociology, Rawat Publications Jaipur, 2007.

Tischler, H.L. Whitten, Phillip & Hunter, David E.K. : Introduction to sociology, Holt, Rinehart and Winston, 1983.

Salunkhe, Sarjero : Samajshstrateel Mulbhoot Sankapana, (in Marathi), Narendra Publication, Appa Balawant Chowk, Pune, 2006

Jadav, Ramesh : Samajshastra (in Marathi) , C.Jamanadas and Co. Mumbai, 1988.

Sangave, Vilas : Samajshastra (in Marathi), Popular Prakashan, Mumbai.

3

Nadgonde, Gurunath : Samajshastra chi Multatve (in Marathi), Continental Prakashan, Pune.

Bhandarkar, P.L. and Vaidya N.S. : Samajshastriya Siddhant, Maharashtra GranthNirmiti Mandal., Nagpur, 1986.

Equivalence

Sr. No.	Title of old paper	Title of New paper
1)	Introduction to Sociology Sem.- I Paper- I	Introduction To Sociology Sem.- I Paper- I

B.A.PART – I SEM – II
DSC-B16, SOCIOLOGY – II (50 Marks 4 Credits)
PRINCIPLES OF SOCIOLOGY PAPER - II

Module –I Culture

- A) Culture –Meaning and characteristics
- B) Elements of Culture
- C) Importance of Culture

Module –II Socialization

- A) Meaning and Stages in the Process of Socialization
- B) Agencies of Socialization
- C) Importance of Socialization

Module –III Social Control

- A) Social Control : Meaning and Nature
- B) Functions of Social Control
- C) Types of Social Control

Module –IV Social Change

- A) Social Change : Meaning and characteristics
- B) Factors of Social Change
- C) Obstacles of Social Change

Books Recommended :

Brom, Leonard and Selznick Phillip : Sociology, Raw, Peterson and company, New York, 1957

Chinoy, Ely : Society - An Introduction to sociology, Random House, 1961.

David Dressler and Wills, W.M. : Sociology - The study of Human Interaction, Alfred A Knof, New York, 1976.

Davis, Knigsley : Human Society, Macmillan, New York, 1948.

Harlambos, M. and R.M. Heald : Sociology - Themes and perspectives, OxfordUniversity Press, New Delhi, 1994.

Horton and Hunt : Sociology, MacGraw Hill, Tokyo, 1976.

Inkeles Alex : What is Sociology? : Intlewood Cliffs, Inc., prentice Hall, New Delhi 1964

Johnson, Harry M : Society - An Introductory Analysis, Mac Millan & Co. Ltd., London, 1965.

MacIver and Page : Society - An Introductory Analysis, Mac Millan & Co.Ltd., London, 1965.

Rawat, H. K. : Sociology, Rawat Publications Jaipur, 2007.

Tischler, H.L. Whitten, Phillip & Hunter, David E.K. : Introduction to Sociology, Holt, Rinehart and Winston, 1983.

Salunkhe, Sarjero : Samajshstrateel Mulbhoot Sankapana, (in Marathi), Narendra Publication, Appa Balawant Chowk, Pune, 2006

Jadav, Ramesh : Samajshastra (in Marathi) , C.Jamanadas and Co. Mumbai, 1988.

Sangave, Vilas : Samajshastra (in Marathi), Popular Prakashan, Mumbai.

Nadgonde, Gurunath : Samajshastra chi Multatve (in Marathi), Continental Prakashan,

Pune.

Bhandarkar, P.L. and Vaidya N.S. : Samajshastriya Siddhant, Maharashtra GranthNirmiti Mandal, Nagpur, 1986.

Equivalence

Sr. No.	Title of old paper	Title of New paper
1)	Applied Sociology Sem.- II – Paper- II	Principles Of Sociology Sem.- II – Paper- II



Estd. 1962

NAAC 'A' Grade

Faculty of Humanities

Syllabus for

B. A. Part II (Sem III & IV)

Sociology

(To be implemented from June, 2019-20)

Equivalence Table

B. A. Part – II (Sem-III)

Paper	Old Syllabus	Paper	New Syllabus
Paper – III	Indian Social Structure	DSC – D3 Paper No- III	Social Issues in India
Paper – IV	Social Problem in India	DSC – D4 Paper No- IV	Social Movement in India
IDS Paper - I	Rural Development	CGE Paper I	Rural Development
IDS Paper - I	Social Ecology	CGE Paper I	Social Ecology

B. A. Part – II (Sem-IV)

Paper	Old Syllabus	Paper	New Syllabus
Paper – V	Social Change in Indian Society	DSC – D31 Paper No- V	Gender and Violence
Paper – VI	Social Problem in Cotemporary India	DSC – D32 Paper No- VI	Sociology of Health
IDS Paper - II	Rural Development	CGE Paper II	Rural Development
IDS Paper - II	Social Ecology	CGE Paper II	Social Ecology

SYLLABUS - Choice Based Credit System

B.A. Part – II – DSC – D3

Semester - III, Paper No.III - Social Issues in India

Sociology Course - 3, June 2019 onwards

Course Objective:

This Course introduces students to Sociological study of Social Issues. This paper aim to draw attention of the students for to need to study 'Socio-Cultural, Economic,' and legal issues in India.

	Topic	Teaching Hours	Credits
Model - I	Social Issues A) Nature of Social Issues B) Classification of Social Issues C) Need for study for Social Issues	15	1
Model - II	Socio-Cultural Issues A) Communalism : Meaning, Causes and Remedies B) Female-Foeticide : Meaning, Causes and Remedies	15	1
Model - III	Socio-Economic Issues A) Poverty : Meaning, Causes and Remedies B) Unemployment : Meaning and Remedies	15	1
Model - IV	Socio-Legal Issues A) Human Rights : History, Fundamental Rights in Indian Constitution B) Cyber Crime : Meaning, Causes and Remedies	15	1

References :

1. जी.एल.शर्मा : सामाजिक मुद्दे, 2017, रावत पब्लिकेशन, जयपूर.
2. राम आहूजा : सामाजिक समस्या, 2000, रावत पब्लिकेशन, जयपूर.
3. राम आहूजा : सोशल प्रॉब्लेम्स इन इंडिया, 2014, रावत पब्लिकेशन, जयपूर.
4. भार्गव नरेश : वैश्विकरण : समाजशास्त्रीय परिपेक्ष्य, 2014, रावत पब्लिकेशन, जयपूर.
5. राजविवेक एस. : समकालीन भारतीय मुद्दे (समस्या एवं समाधान), 2013-14, सिव्हील सर्व्हीसेस, टाईम्स न्यू दिल्ली.
6. रावत हरिकृष्ण, उच्चतर समाजशास्त्र विश्वकोश, 2014, रावत पब्लिकेशन, जयपूर.

Equivalence of B.A.II Sociology

Sr.No.	Title of Old Paper	Title of New Paper
1.	Sem-III, Paper No.III Indian Social Structure	Sem-III, Paper No.III Social Issues in India

Shivaji University, Kolhapur
SYLLABUS - Choice Based Credit System

B.A. Part – II – DSC – D4

Semester - III, Paper No.IV - Social Movement in India

Sociology Course - 4, June 2019 onwards

Course Objectives :

This paper aims to draw attention to the variety of ideas and debates about India. Further, it critically engages with the multiple socio-political forces and ideologies which shape the terrain of the nation.

	Topic	Teaching Hours	Credits
Model - I	Social Movement A) Meaning and Characteristics of Social Movement B) Elements of Social Movements C) Importance of Social Movement.	15	1
Model - II	Peasant Movement A) Peasant Problems in India B) Major peasant Movement C) Impact of Peasant Movement	15	1
Model - III	Dalit Movement A) Dalit Problems in India B) Major Dalit Movement. C) Impact of Dalit Movement	15	1
Model - IV	Tribal Movement A) Tribal Problems in India B) Major Tribal Movement C) Impact of Tribal Movement	15	1

References :

1. Gandhi and Ambedkar, Ambedkar, B. R., 1971 [1936], Annihilation of Caste, Jullunder: Bheem Patrika
2. Dalit Politics, Shah, G., 2001, Dalit Identity and Politics, New Delhi: Sage Publications, Pp.17-43
3. Mobility and Change, Srinivas, M.N., 1956, 'A Note on Sanskritization and Westernization', The Far Eastern Quarterly, 15(4), Pp. 481-496
4. Women's Movement : Menon, N., (ed.) 1999, Gender and Politics in India, Delhi: Oxford University Press, pp.342-369.
5. Peasant Movements : Pouchepadass, J., 1980, 'Peasant Classes in Twentieth Century Agrarian Movements in India', in E. Hobsbawm (ed.) Peasants in History, Delhi: Oxford University Press, Pp.136-155
6. भारतातील दलित समाज : सुखदेव थोरात, 2009, सेज (Sage) पब्लिकेशन, न्यू दिल्ली.
7. समाजशास्त्रातील मुलभूत संकल्पना : सर्जेराव साळुंखे, निराली प्रकाशन, पुणे.
8. भारतातील सामाजिक चळवळी : घनश्याम शहा, 2014, सेज (Sage) पब्लिकेशन, न्यू दिल्ली.
9. सामाजिक चळवळी आणि सरकार : घनश्याम शहा, अनुवाद — योगिनी वेंगुर्लेकर, 2009, डायमंड पब्लिकेशन, पुणे.
10. भारतातील सामाजिक चळवळी : खंडेरावजी एस. साळुंखे, 2018, निर्मिती संवाद, कोल्हापूर.

Equivalence of B.A.II Sociology

Sr.No.	Title of Old Paper	Title of New Paper
1.	Sem-III, Paper No.IV Social Problem in India	Sem-III, Paper No.IV Social Movement in India

Shivaji University, Kolhapur
SYLLABUS - Choice Based Credit System

B.A. Part – II - DSC – D31

Semester - IV, Paper No.V - Gender and Violence

Sociology Course - 5, June 2019 onwards

Course Objectives :

Gendered violence is routine and spectacular, structural as well as situated. This course attempts to provide an understanding of the logic of that violence, awareness of its most common forms and tries to equip the students with a sociologically informed basis for making pragmatic, ethical and effective choices while resisting or intervening in the context of gendered violence.

	Topic	Teaching Hours	Credits
Module - I	Gender and Violence A) Meaning of Gender B) Nature of Gender Violence C)Major Gender Issues.	15	1
Module - II	Domestic Violence A) Meaning of Domestic Violence B) Dowry : Causes and Remedies C) Divorce : Causes and Remedies	15	1
Module - III	Violence Against Women A) Tribal Women : Nature and Remedies B) Rural Women :Nature and Remedies C) Urban Women : Nature and Remedies	15	1
Module - IV	Womens' Harassment at workplace A) Nature of Womens' Harassment B) Types of Womens' Harassment C) Remedies and Vishakha Guidelines Acts, 2013	15	1

Reference :

1. Kimmel, Michael S. *The Gendered Society*. New York: Oxford University Press, 2011. Chapter 13. Gender of Violence, Pp. 381-407
2. Wies, Jennifer R. *Anthropology at the Front Lines of Gender-Based Violence*.
3. Nashville, Tenn.: Vanderbilt Univ. Press, 2011. Chapter 1. *Ethnographic Notes from the Frontlines of Gender Based Violence*, Pp. 1-18
4. Kannabiran, Vasanth and Kalpana Kannabiran, *Caste and Gender: Understanding Dynamics of Power and Violence*, *Economic and Political Weekly*, Vol. 26, No. 37 (Sep. 14, 1991), pp. 2130-2133.
5. Irudayam, Aloysius, Jayshree P Mangubhai, and Joel G Lee. *Dalit Women Speak Out*. Chapters. 1, 3, 4, 13 and 14.
6. Karlekar, Malavika. *Domestic Violence*, *Economic and Political Weekly*, Vol. 33, No. 27 (Jul. 4-10, 1998), pp. 1741-1751
7. Agnes, Flavia, *'My Story, Our Story: Building Broken Lives'* Mumbai: Majlis. 1984.
8. Chowdhry, Prem. *Enforcing Cultural Codes: Gender and Violence in Northern India*, *Economic and Political Weekly*, Vol. 32, No. 19 (May 10-16, 1997), pp. 1019-1028
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11. MacKinnon, Catharine A. *Only Words*. Cambridge, Mass.: Harvard University Press, 1993. Chapter II *Racial and Sexual Harassment*. Pp. 43 – 68.
12. Tejani, Sheba. *Sexual Harassment at the Workplace: Emerging Problems and Debates*, *Economic and Political Weekly*, Vol. 39, No. 41 (Oct. 9-15, 2004), pp. 4491-4494

13. Box, Steven. *Power, Crime, and Mystification*. London: Routledge, 1989. Chapter 4. Rape and Sexual Assaults on Women Pp. 120 - 165
14. Scully, Diana and Joseph Marolla. "Riding the Bull at Gilley's": Convicted Rapists Describe the Rewards of Rape, *Social Problems*, Vol. 32, No. 3 (Feb., 1985), pp. 251- 263
15. Menon, Nivedita. *Recovering Subversion: Feminist Politics beyond the Law*. Ranikhet: Permanent Black. 2004. Chapter 3. Sexual Violence: Escaping the Body. Pp. 106 - 156
16. Omvedt, Gail, *Violence Against Women: New Movements and New Theories in India*. Delhi: Kali for Women, 1990. Pp. 1-40
17. Das, Veena & Kim Turcot DiFruscia. Listening to Voices: An Interview with Veena Das, *Altérités*, vol. 7, no 1, 2010 : 136-145.
18. Naquvi, Farah. This Thing called Justice: Engaging Laws on Violence against Women In India, in Bishakha Dutta (ed.), *Nine Degrees of Justice: New Perspectives on Violence Against Women in India*. Delhi: Zuban, 2010.
19. Wall, Liz. 'Gender equality and violence against women what's the connection?' The Australian Center for the study of Sexual Assault Research Summary. 2014.
20. Welchman, Lynn, and Sara Hossain. "Honour". London: Zed Books, 2005. Chapter 2. 'Crimes of Honour': Value and Meaning Pp. 42-64
21. Loy, Pamela Hewitt, and Lea P. Stewart. 'The Extent and Effects of the Sexual Harassment of Working Women'. *Sociological Focus* 17.1 (1984): 31-43.
22. Pickup, Francine, *Ending Violence against Women: A Challenge for Development and Humanitarian Work*, London: Oxfam, 2001. Chapter 5. Direct support to the survivors of violence & Chapter 8. Challenging the State.

23. United Nations Division for the Advancement of Women, 'Good Practices in Legislation on Violence against Women' 2008. Part III, Framework for Legislation on Violence against Women.
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25. जी.एल.शर्मा : सामाजिक मुद्दे, 2016, रावत पब्लिकेशन, जयपूर.
26. रचना सुचिन्मयी : समसामायिक – राजनितीक मुद्दे, 2016, रावत पब्लिकेशन, जयपूर.

Equivalence of B.A.II Sociology

Sr.No.	Title of Old Paper	Title of New Paper
1.	Sem-IV, Paper No.V Social change in Indian Society	Sem-IV, Paper No.V Gender and Violence

Shivaji University, Kolhapur
SYLLABUS - Choice Based Credit System
 B.A. Part – II - DSC – D32
 Semester - IV, Paper No.VI - Sociology of Health
Sociology Course - 6, June 2019 onwards

Course Objectives :

The course introduces students to the sociology of health, illness and medical practice by highlighting the significance of socio-cultural dimensions in the construction of illness and medical knowledge. Theoretical perspectives examine the dynamics shaping these constructions. Negotiations of health and illness are explored through ethnographies.

	Topic	Teaching Hours	Credits
Model - I	Introduction to Sociology of Health A) Meaning and Nature of Sociology of Health B) Subject Matter of Sociology of Health C) Importance of Sociology of Health	15	1
Model - II	Major Diseases in India A) Diabetes - Causes and Remedies B) Heart Diseases - Causes and Remedies C) Cancer - Causes and Remedies	15	1
Model - III	Lifestyle and Health A) Traditional Lifestyle and Health B) Modern Lifestyle and Health C) Remedies on Health Problems	15	1
Model - IV	Health Policy in India A) Health Policy for Children and Women B) Health Policy for Old Age C) Health Policy for People Below Poverty Line(BPL)	15	1

Reference :

1. Turner, Bryan, S. (1995) *Medical Power and Social Knowledge*. London, Sage, Chapters 1 and 2 and 3. Pages (1-54).
2. Boorse, Christopher (1999) On the distinction between Disease and Illness. In (eds.) James Lindermann Nelson and Hilde Lindermann Nelson, *Meaning and Medicine: A Reader in the Philosophy of Healthcare*, New York: Routledge. (Pages 16-27)
3. Kleinman, Arthur (1988) *The Illness Narratives: Suffering, Healing and the Human Condition*. New York : Basic Books Inc. Publishers. Chapter (Pages 3-30).
4. Fruend, Peter E.S., McGuire, Meredith B. and Podthurst, Linda S. (2003) *Health, Illness and the Social Body*, New Jersey: Prentice Hall. Chapter 9 (Pages 195-223)
5. Morgan, Lynn. Morgan (1987) *Dependency Theory and the Political Economy of Health: An Anthropological Critique*. *Medical Anthropology Quarterly*, New Series, Vol.1, No.2 (June, 1987) pp. 131-154.
6. Talcott Parsons (1951) *The Social System*, London: Routledge & Kegan Paul Ltd. Chapter 10, (Pages 428-479).
7. Foucault, Michel (1994) *The Birth of the Clinic: An Archaeology of Medical Perception*, New York: Vintage Books. Chapter-1 and Conclusion. (Pages 3-20 and 194-199).
8. Turner, Bryan, S. (1995) *Medical Power and Social Knowledge*, London: Sage. Chapter 5. (Pages.86-108).
9. Patel, Tulsi (2012) *Global Standards in Childbirth Practices*. In (eds.) V. Sujatha and Leena Abraham *Medical Pluralism in Contemporary India*. New Delhi: Orient BlackSwan. (Pages 232-254).
10. Evans- Pritchard, E.E. (2010) *The Notion of Witchcraft Explains Unfortunate Events*. In (eds.) Byron J.Good, Micheal M. J. Fischer, Sarah S. Willen and Mary-Jo Del Vecchio *Good A Reader in Medical Anthropology : Theoretical Trajectories , Emergent Realities*, Oxford : Wiley- Blackwell, Chapter-2 (Pages 18-25).

11. Baer, Hans A., Singer, Merrill and Susser, Ida (1994) Medical Anthropology and the World System, Westport: Praeger. Chapters 10 and 11 (Pages 307-348)
12. Gould, Harold A. (1965) Modern Medicine and Folk Cognition in Rural India in Human Organization, No. 24. pp. 201- 208.
13. Leslie, Charles (1976) Asian Medical Systems: A Comparative Study, London: University of California Press, Introduction. (Pages 1-12) .
14. Inhorn, Marcia (2000). Defining Women's health: Lessons from a Dozen Ethnographies, Medical Anthropology Quarterly, Vol. 20(3): 345-378.
15. Nichter, Mark and Mimi Nichter (1996) Popular Perceptions of Medicine: A South Indian Case Study. In Anthropology and International Health. Amsterdam : OPA. Chapter7 (Pages 203-237)
16. Das, Veena, R.K. Das and Lester Coutinho (2000) Disease Control and Immunization: A Sociological Enquiry. In Economic and Political Weekly, Feb. 19-26. Pages 625-632.
17. Qadeer, Imrana (2011) Public Health In India, Delhi: Danish Publishers, Part III, (Pages 221-252).
18. Good, Byron (1994) Medicine, Rationality and Experience: An Anthropological Perspective. Cambridge: Cambridge University Press. Chapter 6. (Pages 135- 165).
19. Annandale, Ellen (1988) The Sociology of Health and Medicine, Cambridge: Polity Press.
20. Banerji, Debabar (1984) The Political Economy of Western Medicine in Third World Countries. In (ed.) John McKinlay Issues in the Political Economy of Healthcare. New York: Tavistock.

Equivalence of B.A.II Sociology

Sr.No.	Title of Old Paper	Title of New Paper
1.	Sem-IV, Paper No.VI Social Problem in Cotemporary India	Sem-IV, Paper No.VI Sociology of Health

Shivaji University, Kolhapur

SYLLABUS

Choice Based Credit System

B.A.II (I.D.S.)

Semester - III

Rural Development (I.D.S.)

Paper No.I - Introduction to Rural Development

Implemented from academic Year 2019-2020.

Objective :

- 1) To understand the importance of Rural Development.
- 2) To create the Rural Development awareness.

	Topic	Teaching Hours	Credits
Model - I	Concept of Rural Development A) Nature B) Characteristics C) Objectives	15	1
Model - II	Role of Government Agencies and NGO's A) Government Agencies : Zilla Parishad, Panchayat Samiti and Grampanchayat B) NGO's	15	1
Model - III	Rural Social Problems A) Poverty B) Problem of Indebtedness C) Problem of Agriculture Labour	15	1
Model - IV	Impact of Stigs Education and Co-operative in Rural Development A) Self Help Groups B) Education C) Co-operatives	15	1

Reference Books :

1. Desai A.R. : Rural Sociology in India, Popular prakashan, Mumbai 1997.
2. Desai Vasant : Rural Development programme and strategies - Vol. I to VI, Himalaya Publishing House, Mumbai, 1988.
3. Dube S.C. : Indian Village
4. Dube S.C. : India's Changing Villages, Allied Publishers Pvt. Ltd., Mumbai 1967.
5. Baviskar B.S. : Politics of Development, Oxford University Press.
6. पंडीत नलिनी : जागतिकीकरण आणि भारत : लोकवाङ्मय, मुंबई.
7. योजना : महाराष्ट्र शासन, मुंबई.
8. लोकराज्य : महाराष्ट्र शासन, मुंबई.
9. कुरुक्षेत्र : भारत सरकार, नवी दिल्ली.
10. खंडागळे चंद्रकांत : ग्रामीण समाजशास्त्र, प्रकाशिका सौ.मायादेवी खंडागळे, सांगली 2005.
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Shivaji University, Kolhapur
SYLLABUS
Choice Based Credit System
B.A.II (I.D.S.)
Semester - IV
Rural Development (I.D.S.)
Paper No.II - Rural Development in India
Implemented from academic Year 2019-2020.

Objective :

- 1) To understand the importance of Rural Development.
- 2) To create the Rural Development awareness.

	Topic	Teaching Hours	Credits
Model - I	Government and Rural Development Programmes A) Mahatma Gandhi National Rural Employment Guarantee Act. B) Education and Adult Education. C) Health and Sanitation with Nirmal Gram in Maharashtra.	15	1
Model - II	Role of Jawaharlal Nehru and Yashwantrao Chavan in Rural Development A) Jawaharlal Nehru: Thoughts and Contribution B) Yashwantrao Chavan: Thoughts and Contribution.	15	1
Model - III	Globalization and its impact on Agriculture A) Meaning and Scope B) Advantage and Disadvantages.	15	1

	C) Impact of Globalization in Agriculture.		
Model - IV	Remedies of Rural Development A) Remedies at Rural Development level. B) Uses of Income Distribution C) Concept of Rural Poverty and it's Remedies.	15	1

Reference Books :

1. Desai A.R. : Rural Sociology in India, Popular prakashan, Mumbai 1997.
2. Desai Vasant : Rural Development programme and strategies - Vol. I to VI, Himalaya Publishing House, Mumbai, 1988.
3. Dube S.C. : Indian Village
4. Dube S.C. : India's Changing Villages, Allied Publishers Pvt. Ltd., Mumbai 1967.
5. Baviskar B.S. : Politics of Development, Oxford University Press.
6. पंडीत नलिनी : जागतिकीकरण आणि भारत : लोकवाङ्मय, मुंबई.
7. योजना : महाराष्ट्र शासन, मुंबई.
8. लोकराज्य : महाराष्ट्र शासन, मुंबई.
9. कुरुक्षेत्र : भारत सरकार, नवी दिल्ली.
10. खंडागळे चंद्रकांत : ग्रामीण समाजशास्त्र, प्रकाशिका सौ.मायादेवी खंडागळे, सांगली 2005.
11. कट्यारसिंह-अनिल शिशोदिया (2016) ग्रामीण विकास, सेज पब्लिकेशन, न्यू दिल्ली.

Equivalence of B.A.II Rural Development (I.D.S.)

Sr. No.	B.A.II (Old)	Sr. No.	B.A.II (New)
1)	Introduction to Rural Development Sem.III	1)	Introduction to Rural Development Sem.III
2)	Rural Development in India Sem. IV	2)	Rural Development in India Sem. IV

Shivaji University, Kolhapur

SYLLABUS
Choice Based Credit System
B.A.II (I.D.S.)
Semester - III

SOCIAL ECOLOGY (I.D.S.) PAPER - I
Implemented from academic Year 2019-2020 onwards.

Objective :

- 1) To understand the importance of social ecology.
- 2) To create environmental awareness.
- 3) To control and try to ride over the environmental Problems, facing present generation.

	Topic	Teaching Hours	Credits
Unit - 1	Social Ecology A) Subject Matter of Social Ecology B) Ecosystem C) Importance of Social Ecology	15	1
Unit - 2	Biodiversity and its Conservation A) Meaning of Biodiversity B) Threats to Biodiversity C) Conservation of Biodiversity	15	1
Unit - 3	Environmental Pollution A) Water Pollution B) Air Pollution C) Noise Pollution	15	1
Unit - 4	Environmental Ethics A) Meaning of Environmental Ethics B) Need of Environmental Ethics C) People's Participation and Protection of Environment.	15	1

Reference Books :

1. Marten Gerald G 'Human Ecology'-Basic concepts for sustainable development, Earthscan Publication London, 2001.
2. Mukherji Radhakamal 'A study in social ecology' Popular Prakashan Bombay.
3. Dunlap Riley E and Michelson William 'Handbook of environmental Sociology' Rawat Publication, Jaipur 2008.
4. Agarwal S.K. 'Environmental scenario for 21st century' A P H publishing corporation New Delhi, 2003.
5. Swarup R., Mishra S., Jauhari V.P. 'Encyclopaedia of Ecology environment and pollution control An introduction to man his environment Mittal Publications, New Delhi, 1992.
6. प्रा.प्रकाश सावंत, 'पर्यावरण अभ्यास' फडके प्रकाशन, कोल्हापूर, 2005.

Shivaji University, Kolhapur

SYLLABUS

Choice Based Credit System

B.A.II (I.D.S.)

Semester - IV

SOCIAL ECOLOGY (I.D.S.) PAPER - II

Implemented from academic Year 2019-2020 onwards.

Objective :

- 1) To understand the importance of social ecology.
- 2) To create environmental awareness.
- 3) To control and try to ride over the environmental Problems, facing present generation.

	Topic	Teaching Hours	Credits
Unit - 1	Human Ecology A) Subject Matter of Human Ecology B) Population Growth and Degradation of Environment. C) Relationships Between Man and his Environment	15	1
Unit - 2	Types of Human Settlement A) Tribal Settlement B) Rural Settlement C) Urban Settlement.	15	1
Unit - 3	Problem of Global Warming A) Meaning of Global Warming B) Causes of Global Warming C) Measures to Control Global Warming	15	1
Unit - 4	Environmental Movements A) Types of Environmental Movements. B) Role of NGO's in Protection of Environment. C) Environmental Protection Act's	15	1

Reference Books :

1. Marten Gerald G 'Human Ecology'-Basic concepts for sustainable development, Earthscan Publication London, 2001.
2. Mukherji Radhakamal 'A study in social ecology' Popular Prakashan Bombay.
3. Dunlap Riley E and Michelson William 'Handbook of environmental Sociology' Rawat Publication, Jaipur 2008.
4. Agarwal S.K. 'Environmental scenario for 21st century' A P H publishing corporation New Delhi, 2003.
5. Swarup R., Mishra S., Jauhari V.P. 'Encyclopaedia of Ecology environment and pollution control An introduction to man his environment Mittal Publications, New Delhi, 1992.
6. प्रा.प्रकाश सावंत, 'पर्यावरण अभ्यास' फडके प्रकाशन, कोल्हापूर, 2005.

Equivalence of B.A.II Social Ecology (I.D.S.)

Sr.No.	Title of Old Paper	Title of New Paper
1.	Social Ecology (IDS)	Sem-III Social Ecology Paper - I
		Sem-IV Social Ecology Paper - II

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.A. Part-III

Sociology

Syllabus to be implemented from

June, 2020 onwards.

Shivaji University, Kolhapur.

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – V, DSE – E66 SOCIOLOGY – VII

WESTERN SOCIOLOGICAL THINKERS

(June, 2020 onwards)

A) Course Objectives

Objective of teaching sociological Thinkers to undergraduate students is to enable them to apply theory to their own everyday life experiences.

This requires that students develop their sociological imagination and the capacity to read each situation sociologically and then to think about it theoretically.

To this end, it is imperative that sociological theory courses demonstrate the applicability of theory to students.

B) Course Learning Outcomes:

1. Understanding the grand foundational themes of sociology.
2. Application of theories and concepts from classical sociological theories to develop intellectual openness and curiosity.
3. Appreciation of the classical concepts and theories to develop awareness of the limits of current knowledge.

C) Course Content:

Module	Topic and Sub-Topic	Teaching Hours	Credits
Module -I	AUGUSTE COMTE A) Law of Three Stages B) Concept of Positivism. C) Social Statics and Social Dynamics.	15	1
Module -II	KARL MARX A) Dialectical Materialism B) Theory of Class Conflict C) Theory of Alienation	15	1

Module -III	EMILE DURKHEIM A) The Study of Social Facts B) Theory of Division of Labour C) Theory of Suicide	15	1
Module -IV	MAX WEBER A) The Ideal Type B) Theory of Social Action C) Types of Authority.	15	1

D) Teaching Learning Process:

1. The students are encouraged to read the original texts and the teacher often participates in the reading process. Thereby the teacher engages in active, rather than passive, pedagogy.
2. It is important that the classroom sessions, initiated either by the student or the teacher, would encourage teamwork and draw students towards learning, yet there are other means available now which add to that. The use of digital/ICT generated techniques (audio-visual aids).

E) Assessment Methods:

1. Class assignments/term papers, theme(s) of which are chosen following teacher student discussion, is one of the ways of assessing the subject and writing skill of the students.
2. Tutorial discussion oral presentations and viva-voce, short individual/team led field studies/projects and seminars/workshops are other modes of assessment. These are included in the Internal Assessment (IA) system.
3. Mid-semester examination is another mode of assessment. Here again, the topic(s) on which the students are to be examined are chosen through teacher-student consultation. Mid-semester examination tests the students on the grasp of the topic(s) in particular and the discipline in general.
4. The end-semester examination is conducted by the university and the student is tested and evaluated on the basis of the entire paper (syllabus). S/he is expected to have a full knowledge of the paper and prescribed readings.

NOTE: Visit to University Library

F) REFERENCES:

1. Abraham Francis Modern sociological Theory, Delhi Oxford University press,1982
2. Abraham Francis 'Sociological Thought', Madras Macmillan,1991
3. Aron Raymond Main Currents In Sociological Thought,Vol.I & II
4. Coser A.Lewis 'Masters of Sociological Thought' Rawat publications Jaipur 1996
5. Delaney Tim 'Contemporary Social Theory,Investigation and Application'
6. Haralambos & Holborn Sociology : Themes and Perspectives Published by
Harper Collins Publishers Ltd.London W6 8JB 2008
7. Ritzer George Classical Sociological Theory, 4th edition,Nework, Mc-grawhill
publication. 1996.

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – V, DSE – E67 SOCIOLOGY– VIII

METHODS OF SOCIAL RESEARCH (Part-I)

(June, 2020 onwards)

A) Course Objective:

1. The course is a general introduction to the methodologies of sociological research. It will provide the student with elementary knowledge of the complexities and philosophical underpinnings of research.

B) Course Learning Outcomes:

1. Students are introduced to the concept of conducting research, which is inclusive of formulating research designs, methods and analysis of data. Some knowledge of elementary statistics is also provided to the students to acquaint them with quantification of data.

2. The thrust of the course is on empirical reasoning, understanding and analysis of social reality, which is integral to the concepts of quantitative research. Students learn to differentiate between qualitative and quantitative aspects of research in terms of collection and subsequent analysis of data.

3. Through the competing theoretical perspectives and methodologies, students are able to understand that social reality is multi-faceted, heterogeneous and dynamic in nature.

4. By imparting the knowledge of theory and praxis of research, students are prepared to arrive at a critical understanding of the course. It also equips them with necessary skills for employment in any social research organization.

C) Course Content:

Module	Topic and Sub- Topic	Teaching Hours	Credits
Module-1	Introduction to social Research a. Philosophy of social science b. Meaning and objectives of social research c. Scientific Steps in Social Research d. Relation between theory and fact	15	01
Module -2	Research Design a. Meaning and Nature of Research Design b. Explorative c. Descriptive d. Experimental	15	01
Module -3	Basic Elements of Social Research a. Concepts-meaning and characteristics		

	b. Variable- meaning and Types c. Hypothesis- meaning and Sources	15	01
Module -4	Modes of Enquiry a. Quantitative Research : meaning and characteristics b. Qualitative Research: meaning and characteristics c. Importance of Quantitative and Qualitative Research	15	01

D) Teaching - learning process:

- a. A research methods course will require a robust class room discussion on various aspects of the course leading to a clearer understanding of concepts and research methods and the production of knowledge.
- b. Interactive classroom sessions contribute to the development of group skills including listening, brainstorming, communicating and negotiating with peers.

E) Assessment Methods: Assessment for this course will be based on written assignments, projects, project designs and presentations.

<p>NOTE: Organise One Day Workshop on Research Methodology</p>

F) Reference Book :

Durkheim, E. 1958, The Rules of Sociological Method, New York: The Free Press

Weber, Max. 1949, The Methodology of the Social Sciences, New York: The Free Press

Radcliffe-Brown, A.R. 1958, Methods in Social Anthropology, Delhi: Asia Publishing Corporation

Beitelle, A. 2002, Sociology: Essays on Approach and Method, New Delhi

Goode, W. E. and P. K. Hatt. 1952. Methods in Social Research. New York: McGraw Hill.

Srinivas, M.N. et al 2002(reprint), The Fieldworker and the Field: Problems and Challenges in Sociological Investigation, New Delhi

Bryman, Alan. 2004, Quantity and Quality in Social Research, New York: Routledge

Merton, R.K. 1972, Social Theory & Social Structure, Delhi: Arvind Publishing House

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – V, DSE – E68 SOCIOLOGY – IX

POLITICAL SOCIOLOGY

(June, 2020 onwards)

A) Course Objective:

This course aims to acquaint the students with the major concepts, theoretical approaches and perspectives of political sociology. It seeks to prepare the students to apply these concepts and approaches to the understanding of the nature of the political processes and institutions in India. The course also exposes the students to the emerging perspective on the polity-society relationship in contemporary times.

B) Course Learning Outcomes:

1. An ability to comprehend the embeddedness of political and the social in each other.
2. Familiarity with different theoretical and conceptual issues in political sociology and a capacity to use them to grasp political phenomena in a cross-cultural and comparative perspective
3. Be able to understand and appreciate the diversity of ways in which politics operates historically and spatially to generate a more expansive notion of the realm of the political.
4. Be able to understand the relationship between state and society in shaping politics in India both historically and analytically.
5. Be able to generate hypotheses and research questions within the theoretical perspectives and ethnographic contexts in political sociology.

C) Course Content:

	Topic and Sub- Topic	Teaching Hours	Credits
Module - I	Nature of Political Sociology A) Definition and Subject Matter of Political Sociology B) Emergence of Political Sociology C) Importance of Political Sociology	15	1

Module - II	Basic Concepts in Political Sociology A) Power: Meaning and Nature B) State: Meaning and Nature C) Civil Society: Meaning and Nature	15	1
Module - III	Study of Perspectives to Political Sociology A) Perspectives on Power: Weberian, Marxist and Ambedkarian B) Perspectives on State: Liberal, Pluralist, Power-elite, Post-modernist	15	1
Module - IV	Political parties in India A) Political parties: characteristics and social composition. B) Pressure groups and Interest groups: characteristics and political significance. C) Major Political Parties and Their Principles	15	1

D) Teaching-Learning Process:

Teaching learning process in this paper has to be interactive and reflective as majority of students are more often disinterested in questions concerning the political. Teachers should encourage students to read the daily newspaper and peruse electronic journals which would animate the conceptual and analytical aspects of the course with real socio-political events from the students' immediate contexts. Use of audio-visual resources, mainly documentaries will be made an integral part of learning in this course.

E) Assessment Methods:

Assessment in this paper will be in the form of written assignments, book reviews, film reviews, class presentations, projects, and class test.

F) Keywords:

Power, Authority, Resistance, Politics, Elite, State, Democracy, Citizenship, Rights, Para-Political Systems, Post-Colonialism

NOTE: 1) Visit to Vidhansabha / Vidhanparishad

2) Visit to any Gram Sachivalaya / Corporation

G) Reference Book(s)

1. Bendix, R. and S. M. Lipset (Eds.). *Class, Status and Power*. London: RKP, 1966.
2. Bhargava, R. *Secularism and its Critics*. New Delhi: OUP, 1999.
3. Bottomore, T. *Elites and Society*. Harmondsworth: Penguin, 1966.
4. Chakravarty, A. *Contradiction and Change*. Delhi: OUP, 1975.
5. Dahl, R. *Who Governs?* New Haven: Yale University P, 1961.
6. Desai, A.R. *State and Society in India: Essays in Dissent*. Bombay: Popular Publication, 2000
7. Gerth, H.H. and C.W. Mills (Eds.). *From Max Weber: Essays in Sociology*. London: RKP, 1948.
8. Key, V.O. *Politics, Parties and Pressure Groups*. NY: Crowell, 1964.
9. Kohli, A. *India's Democracy: An Analysis of Changing State-Society Relations*. Princeton: Princeton University P, 1990.
10. Kohli, A. *The State and Poverty in India: The Politics of Reform*. Cambridge: Cambridge University P, 1999.
11. Kothari, R. *Caste in Indian Politics*. Delhi: Orient Blackswan, 2008.
12. Laclau, E. *Politics and Ideology in Marxist Theory*. London: Verso, 2012.
13. Miller, D. *On Nationality*. Oxford: Clarendon Press, 1995.
14. Mills, C.W. *The Power Elite*. NY: OUP, 2000.
15. Nash, K. *Contemporary Political Sociology*. Massachusetts: Blackwell Publishers, 2000.
16. Robinson, M. S. *Local Politics: the Law of the Fishes*. Delhi: OUP, 1988.
17. Runciman, W.G. *Social Science and Political Theory*. Cambridge: CUP, 1969.
18. Taylor, G. *The New Political Sociology: Power, Ideology and Identity in an Age of Complexity*. London: Palgrave Macmillan, 2010.
19. Vora, R. and S. Palshikar (Ed.) *Indian Democracy*, Delhi: Sage, 2004.
20. Weber, M. *Economy and Society*. Berkeley: University of California P, 1978.

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – V, DSE – E69 - SOCIOLOGY – X

HUMAN RIGHTS

(June 2020 onwards)

A) OBJECTIVES:-

- 1.To Provide the conceptual understanding about the human rights.
2. To understand the nature and role of Human Rights in India.
3. To understand violation of Human Rights in India.

B) Course Learning Outcomes:

After completion of program students will able to-

- 1)Conceptual understanding about the Human Rights
- 2)Identify issues and problems relating to the realization of human rights
- 3)Understand the nature & role of human rights in India
- 4) Contribute to the resolution of human rights issues and problems
- 5)Educate the society about the human rights and duties in order to create responsible citizenry

C) Course Content:

	Topic and Sub- Topic	Teaching Hours	Credits
Model - I	HUMAN RIGHTS A) Meaning and Characteristics of Human Rights B) History of Human Rights in India (Ancient Period to After Independent Period) C) Perspectives of Human Rights. (Sociological Perspective and Modern Perspectives -Jeromi J.Shestoak)	15	1
Model - II	UNITED NATIONS ORGANIZATIONS AND HUMAN RIGHTS A)Universal Declaration of Human Rights,1948 B)International Covenant on Economic ,Social and cultural Rights,1966 C) International Covenant on civil and Political Rights,1966	15	1
Model - III	HUMAN RIGHTS IN INDIA A)Indian Constitutions and Human Rights B) National Human Rights Commission in India (Structure and Role) C) Function of National Scheduled Castes and Scheduled Tribe commission in India	15	1
Model - IV	VIOLATION OF HUMAN RIGHTS IN INDIA A)Human Trafficking B)Mob Lynching C)Honor Killing	15	1

D) Teaching-Learning Process:

Teaching learning process in this paper has to be interactive and reflective as majority of students are more often disinterested in questions concerning the human rights. Teachers should encourage students to read the daily newspaper and peruse electronic journals which would animate the conceptual and analytical aspects of the course with real sociological Perspective events from the students' immediate contexts. Use of audio-visual resources, mainly documentaries will be made an integral part of learning in this course.

E) Assessment Methods:

Assessment in this paper will be in the form of written assignments, book reviews, film reviews, class presentations, projects, and class test, Seminar .

F) Keywords:

Human Rights, Castes ,Tribe ,Political Rights, Violation ,Human Trafficking
Moab Lynching, Honor Killing
S

NOTE: 1) Visit to Old Age Home, Orphanage, etc

G) REFERENCE :

Anthony M.J	Social action through courts ,ISI ,New Delhi ,1997.
Bhatia K.L	Law and social change Towards 21 st Century, Deep and Deep ,New Delhi ,1994
Bose A.B	Social Security for the old myth and reality ,Center for Public& Governance Institute of applied Manpower Research by Concept Pub. Company .New Delhi,2006
Crampton Helen M.	Social welfare :Institution and Process,Random and Keiser Keneth K. House Inc ,New York,1970
	Social Policy and Social Development in India
Kulkarni P.D	Social Policy and social Development in India,ASSWI,Madras,1979
Pathak s.	Social;An Evolutionary and Development Perspective,Welfare McMillan ,Delhi,1981.
Patil	The Economics of Social Welfare in India, Somayya, Bombay,1978
कोतापल्ले लक्ष्मण	भारतातील सामाजिक कल्याण, प्रशासन आणि समाज कार्य, विद्या प्रकाशन, औरंगाबाद
जी.एल.शर्मा	सामाजिक मुद्दे, रावत पब्लिकेशन्स, २०१५
य.च.म.मु.वि.नाशिक	मानवी हक्क आणि भारतीय राज्यघटना
य.च.म.मु.वि.नाशिक	मानवी हक्क आणि अंमलबजावणी यंत्रणा

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – V, DSE – E70 SOCIOLOGY – XI

SOCIOLOGY OF RELIGION

(June, 2020 onwards)

A) COURSE OBJECTIVE

1. This course exposes students to the distinctiveness of the sociological approach to the study of religion.
2. The individual and the group encounter religion and/or religious phenomenon in myriad ways be it through custom, ritual, beliefs or other practices. Students will be familiarized with the basic theoretical and methodological perspectives on the study of religion and also exposed to ethnographic texts on various aspects of religious phenomenon.
3. The last section of the course touches upon some aspects of religion in contemporary times such as secularization and multiculturalism.

B) COURSE LEARNING OUTCOMES:

1. Students will be acquainted with representative texts that symbolize the development of knowledge in the field of Sociology of Religion. They will be able to identify different theories, approaches and concepts that make up the study of religion, distinguish between them and also use terms specific to the field in specific context.
2. Students will be able to make a link between texts and paraphrase their arguments and use these to communicate their ideas in research papers, projects and presentations.
3. By encompassing contemporary developments the course enables students to think about linkages between religion and society at various levels.

C) Course Content:

Module	Topic and Sub-Topic	Teaching Hours	Credits
Module -I	Understanding Religion A) Sociology of Religion: Meaning , Scope and Subject matter B) Religion : Definition and Characteristics C) Basic Concepts in Religion 1) Belief and Rituals 2) The Sacred and Profane	15	1
Module -II	Perspectives to Study of Religion A) Perspectives of Religion: Durkheim and Weber B) Perspectives of Religion in India: Mahatma Phule and Dr. B. R. Ambedkar	15	1

Module -III	Religions in India A) Hinduism, Islam B) Buddhism, Christianity C) Jainism, Sikhism D) Satya Dharma and Shiv Dharm	15	1
Module -IV	Religion and Social Change A) Socio- Religious Movements B) Religion and Violence C) Religion and Commercialization D) Secularism and National Integration	15	1

D)Teaching -Learning Process:

Teaching learning process in this paper has to be interactive and reflective. Teacher should encourage students to utilize print and electronic media for acquiring knowledge regarding recent status and trends of religion.

E) Assessment Methods:

Assessment in this paper will be from of written assignments, seminars and class test.

F)Key Words;

Religious Belief, Rituals, Sacred, Profane, Magic, Violence, Secularism, National Integration.

NOTE: Visit to Any Religious place and Understand its Structure and Functioning

G)Reference Books

1. Baird, Robert D. "Religion in Modern India". Manohar, Delhi, 1995.
2. Madan, T.N.(Ed), Religion in India", Oxford University Press, New Delhi, 1992.
3. Muzumdar, H.T. "India's Religious Heritage", Allied New Delhi, 1996.
4. Roberts, Keith A. "Religion in Sociological Perspective", Donsey Press, New Delhi, 1984.
5. Prabhu, Pandharinath H. "Hindu Social organization: A Study in Socio-Psychological and ideological Foundations", Popular Prakashan, Bombay, 1963.
6. Dsouza, Leela. "Sociology of Religion".
7. Pias, Richard. "Sociology of Religion".
8. Salve, R.N. "Buddhism and Education", Shruti, Jaipur, 2008.
9. डॉ. विधाधार पुंडलिक .” धर्माचे समाजशास्त्र” कॉन्टीनेटल प्रकाशन २००३,
10. डॉ. प्रदीप आगलावे . “ समाजशास्त्र संकल्पना आणि सिद्धांत “ साईनाथ प्रकाशन नागपूर २००९
11. डॉ. दा . धो . काचोळे . “ भारतीय समाजरचना “ कैलाश प्रकाशन औरंगाबाद १९९८
12. डॉ. बी . एम . कऱ्हाडे “ समाजशास्त्र मुलभूत संकल्पना “ पिंपळापुरे प्रकाशन , नागपूर २०११
13. मंगला आठलेकर “धर्म आणि हिंसा “राजहंस प्रकाशन पुणे २०१७
14. डॉ. ज्योती डोईफोडे “ भारतीय समाज “विद्या प्रकाशन औरंगाबाद

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – VI, DSE – E191 SOCIOLOGY – XII

INDIAN SOCIOLOGICAL THINKERS

(June 2020 onwards)

A) Course Objectives

Objective of teaching Indian Sociological Thinkers to undergraduate students is to enable them to apply theory to their own Indian Social life experiences. This requires that students develop their sociological imagination and the capacity to read each situation sociologically and then to think about it theoretically. To this end, it is imperative that sociological theory courses demonstrate the

applicability of theory to students.

B) Learning Outcomes:

1. Understanding the characteristics and dynamics of the social world, and how postclassical sociologists attempt to understand the social world.
2. Appreciating the relevance and limits of the contemporary theories or theoretical approaches to make sense of social reality.
3. Understanding the basic methodological approaches of the thinkers, through some original texts and their role in building sociological knowledge.

C) Course Content:

Module	Topic and Sub-Topic	Teaching Hours	Credits
Module -I	G.S.GHURYE A) Ideas on National Unity and Interaction B) Study on Caste C) Study on Indian Tribes	15	1
Module -II	A.R.DESAI A) Study of Village Structure in India B) Study of Indian Nationalism C) Analysis of Indian Society through Marxian Perspective	15	1

Module -III	M. N. SRINIVAS A) Concept of Sanskritization B) Concept of Westernization C) Concept of Dominant Caste	15	1
Module -IV	IRAWATI KARVE A) Concept of Kinship Relations B) Hindu Culture: An Interpretation C) Views on Maharashtra	15	1

D)Teaching learning process:

The students are encouraged to read the original texts and the teacher often participates in the reading process. Thereby the teacher engages in active, rather than passive, pedagogy.

It is important that the classroom sessions, initiated either by the student or the teacher, would encourage teamwork or draw students towards learning, yet there are other means available now which add to that. The use of digital/ICT generated techniques (audio-visual aids).

E)Assessment Methods:

1. Class assignments/term papers, theme(s) of which are chosen following teacherstudent discussion, is one of the ways of assessing the subject and writing skill of the students.
2. Tutorial discussion oral presentations and viva-voce, short individual/team led field studies/projects and seminars/workshops are other modes of assessment. These are included in the Internal Assessment (IA) system.
3. Mid-semester examination is another mode of assessment. Here again, the topic(s) on which the students are to be examined are chosen through teacher-student consultation. Mid-semester examination tests the students on the grasp of the topic(s) in particular and the discipline ingeneral.
4. The end-semester examination is conducted by the university and the student is tested and evaluated on the basis of the entire paper (syllabus). S/he is expected to have a full knowledge of the paper and prescribed readings.

NOTE: Visit to University Library

F) REFERENCES:

1. Nagala B.K. 'Indian Sociological Thought' '
2. V.S.Upadhyay and Gaya Pandey 'History of Anthropological Thought'
3. Narendra K. Singh 'Theory and Ideology in Indian Sociology'
4. T. K. Ommen and P.N. Mukharjee 'Indian Society: Reflections and Introspections'
5. A.R. Desai 'Social Background Of Indian Nationalism'
6. A.R. Desai 'Rural India In Transition'
7. T. N. Madan 'Western Sociologists on Indian Society'
8. Yogendra Singh 'Indian Sociology : Social Conditioning and Emerging Concerns'
9. S.K. Pramanik 'Sociology of G.S. Ghurye'
10. Devdas Pillai 'Indian Sociology Through Ghurye : A Dictionary'
11. A.R. Momin 'The Legacy Of G.S. Ghurye'
12. M.N. Srinivas 'Social Change In Modern India'

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – VI, DSE – E192 SOCIOLOGY – XIII

METHODS OF SOCIAL RESEARCH (Part-II)

(June, 2020 onwards)

A) Course Objectives

1. The course provides an introductory, yet comprehensive engagement with social research.
2. Through theoretical and practical knowledge students are acquainted with the different stages of the research process like creation of research design, methods of data collection and analysis.
3. The imparted knowledge and training will enable students to develop a sound understanding of both quantitative and qualitative research.

B) Course Learning Outcomes:

1. Students are introduced to the concept of conducting research, which is inclusive of formulating research designs, methods and analysis of data. Some knowledge of elementary statistics is also provided to the students to acquaint them with quantification of data.
 2. The thrust of the course is on empirical reasoning, understanding and analysis of social reality, which is integral to the concepts of quantitative research. Students learn to differentiate between qualitative and quantitative aspects of research in terms of collection and subsequent analysis of data.
 3. Through the competing theoretical perspectives and methodologies, students are able to understand that social reality is multi-faceted, heterogeneous and dynamic in nature.
 4. By imparting the knowledge of theory and praxis of research, students are prepared to arrive at a critical understanding of the course. It also equips them with necessary skills for employment in any social research organization.
3. Periodic tests/mid-semester examination of the covered syllabus is also undertaken by the students during the academic session. End-semester examination is conducted by the University of Shivaji.

C) Course Content:

Module	Topic and Sub- Topic	Teaching Hours	Credits
Module -1	Sampling and Data collection a. Meaning and Purpose of Sampling b. Types of sampling c. Advantages and Limitation of Sampling d. Primary and secondary Data collection	15	01
Module -2	Observation a. Observation: Meaning and characteristics b. Types of Observation c. Advantages and limitations of observation	15	01

Module -3	Interview and Questionnaire a. Interview-meaning and Types b. Advantages and limitations of interview c. Questionnaire- meaning and Types d. Advantages and limitations of Questionnaire	15	01
Module -4	Data Analysis and Report Writing a. Use of computer in data analysis b. Statistical methods c. Report Writing	15	01

D) Teaching-Learning Process:

1. Classroom lectures interlink the sociological theories previously taught with the methods and techniques of data collection. Students are encouraged to construct questionnaires and conduct interviews, use technology like online surveys to develop practical research skills.
2. The use of statistics enables the students to understand both qualitative and quantitative aspects of social research.
3. Alternative pedagogical techniques like outdoor learning through field trips and research projects, audio-visual technology in classrooms provides them with both research related knowledge and experience.

E) Assessment Methods:

1. Tutorials are given regularly to students after the completion of a topic. The objective is to assess the understanding of the student regarding the covered topic.
2. Students are expected to submit individual/team project reports, along with making oral presentations of the same in class.

**NOTE: Organise Guest Lecture/Seminar on Social Research
Methodology**

F)Books for References:

- Ahuja Ram:** Research Methods, Rawat Publication, Jaipur 2015
- Ghosh B.N.:** Scientific Methods and Social Research, Sterling Publishers, New Delhi, 1982
- Kothari C.R.:** Research methodology: Methods and Techniques, Wiely Eastern, New Delhi, 1992
- Lal Das D.K:** Designs of social Research, Rawat Publication, Jaipur, 2008
- Young P.V.:** Scientific Social Surveys and Research, Prentice -Hall of India, New Delhi, Fourth edition fifteen Reprint, 2003

संदर्भा साठी ग्रंथ (मराठी)

आगलावे प्रदीप : संशोधन पद्धती: शास्त्र व तंत्रे, विद्या प्रकाशन, नागपूर
घाटोळे.ना.: सामाजशास्त्रीयसंशोधन -पद्धती आणि तत्त्वे, मंगेश प्रकाशन
नागपूर,

बोधनकर सुधीर : सामाजिक संशोधन पद्धती,साईनाथ प्रकाशन,नागपूर
रानडे पुष्पा : प्राथमिक सांख्यिकी आणि संशोधन पद्धती,डायमंड प्रकाशन, पुणे,

२०१५

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – VI, DSE – E193 SOCIOLOGY – XIV

SOCIAL ANTHROPOLOGY

(June, 2020 onwards)

-
1. To provide the conceptual understanding about anthropology
 2. To understand the social aspects of tribal's in India.

	Topic	Teaching Hours	Credits
Model - I	INTRODUCTION TO SOCIAL ANTHROPOLOGY A) Social Anthropology: Meaning and Characteristics B) Relation Between Social Anthropology and Sociology C) Field work Method and its Characteristics D) Importance of Social Anthropology	15	1
Model – II	TRIBAL SOCIETY IN INDIA A) Tribal Society : meaning and Characteristics B) Social life : Family ,and Marriage - Characteristics C) Economic Life : Characteristics D) Religious Life : Beliefs and practices	15	1
Model – III	TRIBAL PROBLEMS A) Poverty and Indebtedness B) Land Alienation C) Illiteracy and Exploitation D) Religious Crisis	15	1
Model - IV	Tribal Community in Maharashtra: Pardhi A) Socio-Cultural life : Tradition and Change B) Economic life : Tradition and Change C) Religious life : Tradition and Change D) Social Movements for Development of Pardhi Community	15	1

NOTE: Visit to Any Tribal and Nomadic Tribe Community

REFERENCE:-

Vidyarthi L.P. Tribal Culture of India, Concept Publishers, New Delhi, 1976.
E.E. Evans Pritchard Social Anthropology and Other Essays, The free Press, New York, 1962.
Mujumdar D.N. and Madam T.N An Introduction to Social Anthropology, Asia Publishing House, Bombay, 1973.
संगवे विलास सामाजिक मानवशास्त्र, पॉप्युलर प्रकाशन, मुंबई, १९६९.
नाडगोडे गुरुनाथ भारतीय आदिवासी, कॉन्टिनेंटल प्रकाशन, पुणे, १९९८.
संगवे विलास आदिवासींचे सामाजिक जीवन ए पॉप्युलर प्रकाशन, मुंबई
K. S. Tribal Situation in India, Indian Institute of Advanced Study, Simla, 1972.
S.L. Doshi & P. C. Jain
Social Anthropology Rawat Publication, 2001.
Mane Lximan, Vimuktayan, Yashvantrav chavan prakashan, Satara 1994 (Marathi)
Prabhune Girish, Pardhi, Rajhans Prakashan, Pune. 2006 (Marathi)

Pawar Deepak, Pardhi Samajache Antrang,
Shree Sainath Prakashan, Nagapur. 2014 (Marathi)
Chavan Ramnath, Bhatakya vimuktantanchi Jatpanchayat, Deshmukh ani company
Pune. 2006 (Marathi)

Journals:

i) हाकारा (Hakara)
ii) Social Change (New Delhi)
iii) Man in India (Ranchi)
iv) Tribal research bulletin (Marathi and English)
Tribal Research Institute Pune.
v) Human Ecology : Journal of manenvironmental relationship Kamalraj,
Enterprises Delhi.
Ritzer George Sociological Theory, Tata Mcgraw Hill, 1996
Morrison, Ken Marx,
Durkheim, Weber
Formation of Modern Social Thoughts, Sage London 1995.

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – VI, DSE – E194 SOCIOLOGY – XV

RURAL SOCIOLOGY

(June, 2020 onwards)

A) Course Objectives:

1. To communicate Agriculture as the foundational material practices at the heart of the formation of social collectivities and make sense of South Asian societies agrarian formations.
2. To familiarize students with rural situation past and present with the help of necessary theories and categories.
3. To make sense of rural communities, their structure, transformation and trials and tribulations in modern world.
4. To introduce students to the rich legacy of theoretical and empirical work in rural sociology and its continued relevance.

A) Course Learning Outcomes:

1. An empathy for and ability to engage rural communities as living societies and understand grasp they condition as human condition.
2. An appreciation of rural world and familiarity with the trajectory of theoretical conversation on rural issues and their social, political and policy implications.
3. An understating of emerging as well as enduring issues of concern in Indian rural society
4. To be ready for a range of academic and professional roles that may require a knowledge of rural societies.

C) Course Content:

Module	Topic and Sub- Topic	Teaching Hours	Credits
Module -1	Introduction to Rural Sociology A) Meaning of Rural Sociology B) Origin, Scope and Subject Matter of Rural Sociology C) Importance of Rural Sociology with the reference of India	15	01
Module-2	Indian Rural Community A) Village studies in India B) Classification of Indian Villages C) Changing Nature of Rural Community in India	15	01

Module -3	Social Institutions in Rural Society A) Marriage, Family and kinship Institution B) Caste and Balutedari C) Political life : structure and change	15	01
Module-4	Changing Indian Agrarian Society A) Rural Cooperative and Rural Industry B) Markets, Land Reforms and Green Revolution C) The Agrarian Issues	15	01

D) Teaching Learning Process:

The teaching learning for this course involves lectures, tutorial conversations around contemporary issues of concern for agrarian societies and extensive usage of imaginative literature and films that makes the lived world of peasantry and rural communities come alive to the students.

E) Assessment Methods:

Recommended evaluation would be an assignment that tests the conceptual grasp of the students and a project that prompts students to engage in research about a historical or contemporary rural issue.

NOTE: Visit to village and Grampanchayat and Understand its Structure and Rural Development Programs

F) References:(English)

Beteille Andre: Caste, Class and Power, Oxford University press, (India), New Delhi, (2012).

Beteille Andre: 'The Study of Agrarian Systems: An Anthropological Approach', from Marxism and Class Analysis, New Delhi: Oxford. 2007.

Bandopadhyay : 'Reflections on Land Reform in India since Independence' from T. V. Satyamurthy (Ed.) Industry and Agriculture in India Since Independence, Delhi: Oxford University Press.

Desai A.R.: Rural Sociology in India Popular Prakashan, Bombay, (1969 reprint 2009) .

Dhanagare, D. N.: 'Green Revolution and Social Inequalities in Rural India' from, Economic and Political Weekly, Vol. 22, No. 19/21, Annual Number (May, 1987),

Dube SC: Indian Village, Routledge, New York, (Second edition 2018)

Mukherjee Ramkrishna: The Dynamics of a Rural Society, Akademie -Verlag, Berlin, (1957)

Oommen T.K.: Green Revolution and Agrarian Conflicts, Economics and Political weekly, Vol.-6, Issue-26 (1971)

Shah, A.M.: Changes in the Indian Family: An Examination of Some Assumptions', in The Family in India: Critical Essays, New Delhi: Orient Longman (1998)

Srinivas M.N.: India: Social Structure, Hindustan Publishing Corporation, Delhi (1980)

मराठी ग्रंथ

जयपूर (२००९).

REVISED SYLLABUS OF B. A. III SOCIOLOGY

Choice Based Credit System (CBCS)

Semester – VI, DSE – E195 SOCIOLOGY – XVI

URBAN SOCIOLOGY

(June,2020 onwards)

A)Course Objectives:

1. Urbanization is an important aspect of modern society. This course is will provide an Exposure to key theoretical perspectives for understanding urban phenomena in historical and contemporary contexts.
2. It also reflects on vital concerns of urban living while narrating the subjective experiences of urban communities. With case studies from India and other parts of the world this course will help students understand and relate to the complexities of urban living.
3. The course seeks to evolve critical thinking and develop a policy perspective on the urban.

B)Course Learning Outcomes:

1. To appreciate the significance of the city and the process of urbanization and its Consequences across the globe, through cross disciplinary texts and ethnographic studies.
2. To understand the urban in the historical as well as modern contexts - the idea of Urbanism and urban space and the intersections in these of institutions, processes and Identities. This is to be achieved by exposing students to critical theoretical debates which help them to gain a deeper understanding of city life and urban environment which can Also help them understand their own social environment better.
3. To learn about key urban processes such as migration, displacement and urban slums, as

Well as critical contemporary issues such as resettlement and rehabilitation and also engage in issues of public policy, urban transformation and change. Knowledge of such Themes will help students pursue further studies in academic areas such as development and also engage in research on public policy, urban transformation and change.

4. To develop critical thinking and a reflective perspective through exposure to multicultural Thought; to enhance disciplinary knowledge, research-related skills and develop a problem-solving competence.

C) Course Content:

Module	Topic and Sub- Topic	Teaching Hours	Credits
Module I	Introduction to Urban Sociology A) Definition, Meaning & Nature of Urban Sociology. B) Subject Matter of Urban Sociology. C) Importance of the Study of Urban Sociology	15	01
Module II	Major Concepts in Urban Sociology. A)Urban Community. B)Urbanism. C)Rural- Urban differences- continuum	15	01
Module III	Process of Urbanization A) Meaning and Nature of Urbanization	15	01

	<p>B) Causes of Urbanization.</p> <p>C) Consequences of Urbanization</p>		
Module IV	<p>Urban Social Structure.</p> <p>A) Urban Family : Characteristics and Change</p> <p>B) Urban Social stratification: Caste & Class.</p> <p>C) Urban Occupations: Characteristics and Change</p>	15	01

D) Teaching Learning Process:

The sociology of the urban is simultaneously theoretical and yet deeply experiential. The teaching learning for this course necessarily has to be deliberative, drawing from the multicultural exposure to city living. There will be an emphasis on blended learning supported by debates and discussions. Classroom lectures shall be supplemented by power point presentations and film screenings on various contemporary urban issues. Invited lectures by policy makers, activists, practitioners and other stake holders would be integral to the curriculum. Students would be encouraged to set out into the field to grasp issues with greater clarity. City walks will be encouraged to enrich the experiential understanding of the urban. Learning would also involve a multi-disciplinary perspective, collaborating with other social sciences that engage with the urban as well as the disciplines of urban planning and architecture, in order to enhance problem solving and critical thinking ability.

E) Assessment Methods:

Assessment for this paper would be in the form of tests, written assignments, projects' reports and presentations.

F) Key Words:

Urban, Urbanism, Urbanisation, City, Migration, Settlement, Space, Ecology.

NOTE: 1) Visit to any Slum Area in City and Understand their Problems

2) Visit to any City and Observe its Ecosystem

G) References:-

1. Wilson R.A & Schlutz David : Urban Sociology, Prentice Hall, England, 1978
2. Rao M.S.A. : Urban Sociology in India, Orient Longman
New Delhi, 1974.
3. D Souza Alfred : The Indian city: Poverty Ecology and Urban
Development, Manohar, New Delhi, 1978.
4. Dube K.K. and Singh A.K. : Urban Environment in India, Inter India, New Delhi
1980.
5. Mitra, Ashok et.al. : Indian cities, abhinav, New Delhi, 1980.
6. Berge E.E. : Urban Sociology, Free Press, New York, 1962
7. Bose, Ashish : Studies in India's Urbanisation, Tata McGraw Hill,
New Delhi, 1973
8. Singh Pramod : Ecology and Urban India, Vol.II Ashish, New
Delhi, 1987.
9. Urban Sociology : Rajendra K. Sharma Atlantic Publishers &
Distributors, New Delhi, 1997
10. Urbanization : Concept & Growth: A.K. Shrivastava,
H.K. Publishers and Distributors, New Delhi, 1989

B.A. Sociology Outcome

Sociology is the most contemporary and versatile of the Social Sciences. It trains students to grasp social structures, understand social processes map the dynamics of social change, decipher social interactions and make sense of individual and collective experiences in their social, historical and cultural context. Sociology is at once critical and constructive; conceptual and applied; theoretical and empirical. It is a science that cohabits comfortably with literary flair, speculative sensibility, historical imagination and statistical rigour. It is incessantly reflexive about its methods, demanding about its research techniques and standards of evidence. Sociology is ever so subtle about the conceptual distinctions it draws and zealous about its disciplinary boundaries and identity. At the same time, sociology is the most open and interdisciplinary of social sciences. The Pursuit of sociology is a systematic effort at recovering, mapping and making sense of our kaleidoscopic collective self under the sign of modernity. It is both historical and comparative. Sociology as an academic discipline is committed to the ideal of generating public knowledge and fostering public reason. It embodies best of enlightenment virtues: scientific reason, tolerance of diversity, humanistic empathy and celebration of democratic ideals. It is the science of our times.

Teaching Learning Process

Multiple pedagogic techniques are used in imparting the knowledge both within and outside the classrooms. Listed below are some such techniques:

- Lectures
- Tutorials
- Power-point presentations
- Project work
- Documentary Films on relevant topics
- Debates, Discussions, Quiz
- Talks /workshops

- Interaction with experts
- Academic festivals
- Classics and other sociologically meaningful films
- Excursions and walks within the city
- Visit to the museums
- Outstation study tours Survey designs
- Internships

A note on Assessment Methods

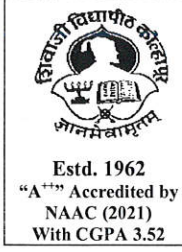
Besides the formal system of University exams held at the end of each semester as well as mid-semester and class tests that are held regularly, the students are also assessed on the basis of the following:

- Written assignments
- Projects Reports
- Presentations
- Participation in class discussions
- Ability to think critically and creatively to solve the problems
- Application of classroom concepts during fieldwork
- Reflexive Thinking
- Engagement with peers
- Participation in extra and co-curricular activities
- Critical assessment of Films /Books etc.

**A note on career trajectories for Sociology Graduates and (for)
Prospective employers:**

Students with a grounding in Sociology have contributed immensely to the following fields :

- Academics
- Bureaucracy
- Social Work
- Law
- Journalism both print and visual
- Management
- Policy Making
- Developmental Issues
- Designing and Conducting surveys
- Human Resource Development
- Competitive Examinations
- Advocacy
- Performing Arts
- Research in contemporary issues of Gender, Development, Health, Urban Studies, Criminology etc.



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शिवाजी विद्यापीठ, कोल्हापूर - ४१६ ००४, महाराष्ट्र
दूरध्वनी - ईपीएबीएक्स - २६०९०००, अभ्यासमंडळे विभाग - ०२३१-२६०९०९४



जा.क्र./शिवाजी वि./अ.मं./भूगोल/६८
प्रति,

दि.१०/११/२०२२

मा. प्राचार्य/संचालक,
सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,
शिवाजी विद्यापीठ, कोल्हापूर

विषय : बी. ए. भाग १ एस. टी. डी. विषयाच्या अभ्यासक्रमाबाबत..
संदर्भ : या कार्यालयाचे पत्र क्र.३३२ दि.१९/०९/२०२२.

महोदय,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, शैक्षणिक वर्ष २०२२-२३ पासून लागू करण्यात आलेल्या बी. ए. भाग १ एस. टी. डी. विषयाच्या अभ्यासक्रमामध्ये किरकोळ दुरुस्ती करण्यात आलेली आहे. सोबत सदर अभ्यासक्रमाची प्रत जोडली आहे. तसेच विद्यापीठाच्या www.unishivaji.ac.in (Online Syllabus) या संकेतस्थळावर ठेवण्यात आला आहे.

सदर अभ्यासक्रम सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावी ही विनंती.

कळावे,

आपला विश्वासू,

उपकुलसचिव

सोबत : अभ्यासक्रमाची प्रत.

- प्रत : १. अधिष्ठाता, विज्ञान व तंत्रज्ञान विद्याशाखा.
२. समन्वयक, भूगोल अभ्यास मंडळ.
३. संचालक, परीक्षा व मूल्यमापन मंडळ कार्यालयास.
४. परिक्षक नियुक्ती ए व बी विभागास.
५. बी. ए. परीक्षा विभागास.
६. संगणक केंद्र/आय. टी. सेल विभागास.
७. दूरस्थ व ऑनलाईन शिक्षण विभाग.
माहितीसाठी व पुढील कार्यवाहीसाठी.

SHIVAJI UNIVERSITY, KOLHAPUR



Accredited By NAAC with 'A++' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B. A. Part - I

Science, Technology and Development (S.T.D.)

(Syllabus to be implemented from June, 2022 onwards)

Shivaji University, Kolhapur

PROGRAM /COURSE STRUCTURE and SYLLABUS

as per the Choice Based Credit System (CBCS) designed in accordance with

Learning Outcomes-Based Curriculum Framework (LOCF)

of National Education Policy (NEP) 2020

for B. A. Part - I Degree (Basic/Honours)

w.e.f. Academic Year 2022-23 and onwards

PREAMBLE

This paper is specially designed to cater to foundation building of the students by imparting knowledge about the science, technology and development. STD students of B. A. Part-I can better understand all latest concepts in Science, Technology and Development in brief but in adequate manner. The objective of this course is to introduce the latest concepts in Science, Technology and Development, specifically fundamental concepts in scientific thinking, contribution of eminent scientists, non-conventional power resources of India, human health, disaster management, communication and information technology, space and ocean research, defense and agriculture.

ELIGIBILITY FOR ADMISSION

Candidates who have passed any PUC Science, Commerce, Arts examinations in Maharashtra State or any other States in India with equal qualifications are eligible for admission to the course.

DURATION OF THE COURSE

The duration of the B.A./B.Sc. Geography Program shall extend over 8 semesters (four academic years) of 16 weeks or more, each with a maximum of 90 actual working days of instruction in each semester.

MEDIUM OF INSTRUCTION:

The medium of instruction shall be Marathi and English.

PROGRAM OUTCOMES

GENERAL OBJECTIVES OF THE COURSE

- 1) To study the fundamental concepts of science, technology and development.
- 2) To study the contribution of eminent scientist in the development of science and technology.
- 3) To study non-conventional power resources of India.
- 4) To study impact of science and technology on human health.
- 5) To study various types of disasters and its management.
- 6) To study means of communication and information technology.

- 7) To study science technology in space and ocean research.
- 8) To study space technology in India's defence and agriculture.

COURSE OUTCOMES

- 1) Student should be able to understand in-depth about the concepts of science, technology and development.
- 2) Students should be able to understand contribution of eminent scientists in the development of science and technology.
- 3) Students should be able to study non-conventional power resources in the country.
- 4) Students should understand impact of science and technology on human health.
- 5) Students should understand types of disasters and its management.
- 6) Students should understand means of communication and information technology.
- 7) Students should be able to understand science technology in space and ocean research.
- 8) Students should understand technology in India's defence and agriculture.

SCHEME OF EXAMINATION:-

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks (as applicable to the course)
- The Theory paper shall carry internal 10 marks (as applicable to the course)
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

Continuous Evaluation Methods (40 Marks):

- Q. 1: Multiple Choose Question (05)
- Q. 2: Write short notes (any three) (15)
- Q. 3: Write detail answers on any two (20)

Internal Evaluation 10 Mark

- B.A.-I Semester-I - Home Assignment / Unit Test / Case Study
- B.A.-I Semester-II – Home Assignment / Unit Test / Case Study

Generic Elective for B. A. Part – I Semester I
Science Technology and Development (STD)
(THEORY)

Title of the Course: Science, Technology and Development

Code: CGE-1B

Number of Theory Credits	Number of lecture hours/ semester	Number of Theory Classes per week
04	60	04

Semester – I

	No. of Lectures	Credits
Module–I Introduction to Science and Technology	15	01
1.1 Science and Technology: Definitions, Nature and Scope		
1.2 Fundamental Concepts in Scientific Thinking		
1.3 Stages in the Study of Science Observation, Experiment, Analysis, Result and Hypothesis.		
1.4 Science and Superstitions		
1.5 Development of Science and Technology		
1.6 Impact of Science and Technology on Society		
Module-II Contribution of Eminent Scientist in the Development of Science and Technology	15	01
2.1 Louis Pasteur		
2.2 Albert Einstein		
2.3 Thomas Alva Edison		
2.4 Dr. Homi Bhabha		
2.5 Dr. M. S. Swaminathan		
2.6 Dr. A. P. J. Abdul Kalam		
Module–III Non-Conventional Power Resources of India	15	01
3.1 Resource: Concept and Importance		
3.2 Classification of Resources		
3.3 Non-Conventional Power Resources		
3.3.1 Solar Energy		
3.3.2 Wind Energy		
3.3.3 Nuclear Energy		

3.3.4 Bio Energy

3.3.5 Geo –Thermal Energy

3.3.6 Tidal Energy

Module–IV Science, Technology and Human Health

15

01

4.1 Impact of Science and Technology on Human Health

4.2 Human Blood–Blood Groups, Importance of Matching Blood Groups in Human Health

4.3 Addiction Social Problems, types, Causes, Effects and Solution

4.4 AIDS–A Challenge before World, Facts, Figures, Causes, Effects, Treatment, Social Outlook.

4.5 Need of Cleanliness: Swachh Bharat Abhiyan

Reference Books

1. Annual Review of Information Science and Technology (ARIST) 39. By Blaise Cronin, Information Today, 2004.
3. Encyclopedia of Computer Science and Technology (Facts on File Science Library) – Import, 15 Jan 2009
4. Encyclopedia of Space Science and Technology, Wiley Online Library.
5. Indian Ocean Research Volumes: Geopolitical Orientations, Regionalism and Security in the Indian Ocean (Routledge Revivals), Dennis Rumley, Sanjay Chaturvedi (Editor) 2015
6. Disaster Management in India, Kadambari Sharma and Chiranjeev Avinash, Jnanda Prakashan, 2010.
7. Bagila A.V. (Ed) Science and Society, Lavani Publication House, 1972.
8. Bose D.M (Ed), A Concise History Science in India, Indian National Science Academy, 1971.
9. Butle J.A.V, Science and Human Life, Pergamon Press, London. (Year)
10. Encyclopaedia Britannica.
11. Flower W.S, The Development of Scientific Method, Pergamon Press, London, 1962.

मराठी पुस्तके

1. विज्ञानाचा समाज धारणेवरील परिणाम - दीक्षित कमलाकर, समाज प्रबोधन संस्था
2. शास्त्रीय विचार पद्धती - अ.भि. शहा, समाज प्रबोधन संस्था
3. जीवनाभिमुख विज्ञान - शिवाजी विद्यापीठ प्रकाशन

4. वैज्ञानिक अभ्यासाची गाथा - शिवाजी विद्यापीठ प्रकाशन
5. विज्ञान, तंत्रज्ञान आणि प्रगती - डॉ. पवार जयसिंगराव, प्रा. सूर्यवंशी निशांत फडके प्रकाशन कोल्हापूर
6. विज्ञान, तंत्रज्ञान आणि प्रगती - प्रा. पाटील हरिश्चंद्र, प्रा. घस्ते अनिल , प्रा. पाटील अरुण, प्रा. माने देशमुख रामराजे, निराली प्रकाशन, पुणे
7. मराठी विश्वकोश

Websites:

e-PG Pathshala: <https://epgp.inflibnet.ac.in/>

MOOCS - NPTEL: <https://nptel.ac.in/>

MOOCS - SWAYAM: <https://swayam.gov.in/>

National Digital Library of India: <https://ndl.iitkgp.ac.in/>

Shivaji University Library (E-Resources): <http://www.unishivaji.ac.in/library/E-Resources>

**Generic Elective for B. A. Part – I Semester II
Science Technology and Development (STD)
(THEORY)**

Title of the Course: Science, Technology and Development

Code: CGE-2B

Number of Theory Credits	Number of lecture hours/ semester	Number of Theory Classes per week
04	60	04

Semester – II

	No. of Lectures	Credits
Module-I Disaster Management	15	01
1.1 Disaster: Concept and Types		
1.2 Earthquake		
1.3 Flood		
1.4 Drought		
1.5 Fire		
1.6 Accident		
1.7 Crowd		
Module-II Means of Communication and Information Technology	15	01
2.1 A Brief History of Communication		
2.2 Origin, Development and Importance of Computer		
2.3 Computer Network		
2.4 Internet		
2.5 Computer Viruses		
2.6 Information Technology		
Module-III Science and Technology in Space, Defense and Ocean Research	15	01
3.1 Artificial Satellite –Types and Usages		
3.2 Indian Space Research Organization		
3.3 Introduction of: a) Geographical Information System (GIS)		
b) Global Navigation Satellite System (GNSS)		
3.4 Science and Technology in National Defense		
3.5 Defense Research and Development Organization(DRDO)		
3.6 Importance of Ocean Study		
3.7 National Institute of Oceanography		

- 4.1 Introduction to Agriculture
- 4.2 Modern Tools and Techniques in Agriculture
- 4.3 Fertilizer: Chemical and Bio Fertilizers
- 4.4 Issues and Challenges in Modern Agriculture
- 4.5 Sustainable Agriculture

Reference Books

1. Annual Review of Information Science and Technology (ARIST) 39. By Blaise Cronin, Information Today, 2004.
3. Encyclopedia of Computer Science and Technology (Facts on File Science Library) – Import, 15 Jan 2009
4. Encyclopedia of Space Science and Technology, Wiley Online Library.
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7. मराठी विश्वकोश

Websites:

e-PG Pathshala: <https://epgp.inflibnet.ac.in/>

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MOOCS - SWAYAM: <https://swayam.gov.in/>

National Digital Library of India: <https://ndl.iitkgp.ac.in/>

Shivaji University Library (E-Resources): <http://www.unishivaji.ac.in/library/E-Resources>

-Notice-

All the concern faculties and departments of the concern course is hereby informed that following changes are made in the previous syllabus of B. A. Part-I Science, Technology and Development (STD) and the corrected syllabus of same course is as above to be implemented from June, 2022 onwards.

Do needful changes according to following:

Old / Previous	New or Revised
Semester I Module – III Non-Conventional Power Resources of India 15 01 3.1 Resource: Concept and Importance 3.2 Types of Power Resource 3.3 Non-Conventional Power Resources 3.3.1 Solar Energy 3.3.2 Wind Energy 3.3.3 Hydel Power Energy 3.3.4 Nuclear Energy 3.3.5 Bio Energy 3.3.6 Geo-Thermal Energy 3.3.7 Tidal Energy 3.4 Carbon Credit	Semester I Module – III Non-Conventional Power Resources of India 15 01 3.1 Resource: Concept and Importance 3.2 Classification of Resources 3.3 Types of Power Resource 3.4 Non-Conventional Power Resources 3.4.1 Solar Energy 3.4.2 Wind Energy 3.4.3 Nuclear Energy 3.4.4 Bio Energy 3.4.5 Geo-Thermal Energy 3.4.6 Tidal Energy
Semester II Module – III Science Technology in Space and Ocean Research 15 01 3.1 Artificial Satellite – Types and Usages 3.2 Indian Space Research Organisation 3.3 Introduction of: a) Geographical Information System (GIS) b) Global Navigation Satellite System (GNSS)	Semester II Module – III Science and Technology in Space, Defense and Ocean Research 15 01 3.1 Artificial Satellite – Types and Usages 3.2 Indian Space Research Organization 3.3 Introduction of: a) Geographical Information System (GIS) b) Global Navigation

3.4 Importance of Ocean Study 3.5 National Institute of Oceanography Module – IV Science Technology in India's Defence and Agriculture 15 01 4.1 Science Technology in National Defence 4.2 Defence Research and Development Organization (DRDO) 4.3 New Technology in Irrigation System 4.4 Chemical and Bio Fertilizers 4.5 Modern equipment's in agriculture 4.6 Plant Protection Methods	Satellite System (GNSS) 3.4 Science Technology in National Defense 3.5 Defense Research and Development Organization (DRDO) 3.6 Importance of Ocean Study 3.7 National Institute of Oceanography Module – IV Science and Technology in Agriculture 15 01 4.1 Introduction to Agriculture 4.2 Modern Tools and Techniques in Agriculture 4.3 Fertilizer: Chemical and Bio Fertilizers 4.4 Issues and Challenges in Modern Agriculture 4.5 Sustainable Agriculture
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Shivaji University, Kolhapur



Accredited By NAAC with 'A' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus For

B.A. Part - I

Economics

(Syllabus to be implemented from June, 2022 onwards.)

Choice Based Credit System
B.A. Part - I
Economics Course – 1
June 2022 onwards
Indian Economy - I

Preamble :

This paper intends to acquaint the students with various dimensions of, as also the challenges, confronting the Indian economy. It endeavors to provide useful insights to the students about the present economic standing and composition of the Indian economy, the major sectors and their relative importance in the Indian economy and the major challenges faced by it.

Course Outcome:

1. Acquaint the students with Structure of the Indian economy and changes taking place therein.
2. Understanding population Problem of Indian Economy
3. Awareness regarding challenges before the Indian economy.
4. Able to formulate the strategy for economic development

Semester - I	Teaching Hours	Credits
Module – I Economic Development Since Independence	15	01
1.1 Major Features of the Indian Economy at Independence		
1.2 Structural Changes in Indian Economy		
1.3 Indian Economy and Inclusive growth		
1.4 Sustainable Development		
Module – II Demographic status of India	15	01
2.1 Size and Causes of growth of population India		
2.2 Broad features of Indian Population		
2.3 Impact of population growth on Economic development		
2.4 Population Policy 2000		
Module – III Challenges before Indian Economy - I	15	01
3.1 Poverty - Meaning and Types		
3.2 Poverty - Causes and measures		
3.3 Unemployment - Meaning and Types		

3.4 Unemployment - Causes and Measures

Module – IV Challenges before Indian Economy - II

15

01

4.1 Economic Inequality- Nature, Causes & Remedies

4.2 Social Inequality – Nature, Causes & Remedies

4.3 Regional Imbalance – Nature, Causes & Remedies

4.4 Human Development Index – Concept, Indicators and Trends

REFERENCE BOOKS

1. Puri V.K., Misra S.K. (Latest Edition) Indian Economy, Himalaya Publishing House, Mumbai.
2. Agrawal A.N. (Latest Edition) Indian Economy, New Age International Publishers, New Delhi.
3. Datt and K.P.M. Sundharam, (Latest Edition) Indian Economy, S.Chand and Company Ltd., New Delhi.
4. Chatterjee and Mani N. (2012-13), Economic Survey of India its states, New Century Publications, New Delhi.
5. Desai Mutalik and Bhalerao Nirmal (Latest Edition) Bharatiya Arthvyavasta, Nirali Prakashan, Pune.(In Marathi Language)
6. Dr.Wavare and Dr. Ghatage (2010), Bharatiya Arthvyavasta, Nirali Prakashan, Pune.(In Marathi Language)
7. India 2014-15.
8. Handbook of Indian Statistics - 2015.
9. Economic Survey of India - Various issues
10. World Development Report - Various issues

B.A.-I
Economics Course – 2
June 2018 onwards
Indian Economy - II

Preamble:

This paper intends to acquaint the students with various dimensions of, as also the challenges, confronting the Indian economy. It endeavors to provide useful insights to the students about the present economic standing and composition of the Indian economy, the major sectors and their relative importance in the Indian economy and the major challenges faced by it.

Course Outcomes:

1. Acquaint with the policies and performance of major sectors in Indian Economy.
2. Understanding the nature, scope, challenges and opportunities of economic reforms.
3. Awareness regarding causes of agrarian distress and remedies.
4. Understanding policy reforms regarding the industry and service sector.

Semester – II	Teaching Hours	Credits
Module – I Policies and Performance in Agriculture	15	01
1.1 Changing role of agriculture in Indian Economy		
1.2 Agricultural productivity: concepts, causes of low agricultural productivity and its measures.		
1.3 Green Revolution: Causes, Success and failure, Need of 2 nd Green Revolution.		
1.4 Agricultural Pricing and Procurement		
Module - II Policies and Performance in Industry	15	01
2.1 Need of Industrialization		
2.2 Industrial Policy since 1991		
2.3 Problems and prospects of Cottage and Small scale Industries		
2.4 Foreign Investment Policies since 1991		
Module – III Service Sector in India	15	01
3.1 Growing importance of service sector		
3.2 Significance of Banks, financial Institutions and Insurance		
3.3 Importance of IT, Transport, Communication.		
3.4 Importance of Tourism.		
Module – IV Economic Reforms	15	01

4.1 Liberalization: Concept, Implementation and Impact on Indian Economy.

4.2 Privatization: Concept, Implementation and Impact on Indian Economy.

4.3 Globalization: Concept, Implementation and Impact on Indian Economy.

4.4 Recent export promotion policy.

REFERENCE BOOKS

1. Puri V.K., Misra S.K.(Latest Edition) Indian Economy, Himalaya Publishing House, Mumbai.
2. Agrawal A.N. (Latest Edition) Indian Economy, New Age International Publishers, New Delhi.
3. Datt and K.P.M.Sundharam, (Latest Edition) Indian Economy, S.Chand and Company Ltd., New Delhi.
4. Chatterjee and Mani N. (2012-13), Economic Survey of India its states, New Century Publications, New Delhi.
5. Desai Mutalik and Bhalerao Nirmal (Latest Edition) Bharatiya Arthvyavasta, Nirali Prakashan, Pune.(In Marathi Language)
6. Dr. Wavare and Dr. Ghatage (2010), Bharatiya Arthvyavasta, Nirali Prakashan, Pune.(In Marathi Language)
7. India 2014-15.
8. Handbook of Indian Statistics - 2015.
9. Economic Survey of India - Various issues 10. World Development Report - Various issues

NATURE OF QUESTION PAPER AND SCHEME OF MARKING

B.A. Part- I (Semester-I) Examination -----

Economics Paper -----

Title -----

Sub code -----

Day & Date :

Time:

Total Marks : 40

- Instructions
1. All questions are Compulsory
 2. Figures to right indicates full marks
 3. Draw neat diagram wherever necessary

Q 1 Complete the following sentences by choosing correct alternatives (05)

- 1.
- 2.
- 3.
- 4.
- 5.

Q 2 Write short notes (any three) (15)

- A.
- B.
- C.
- D.
- E.

Q 3 Write detail answers on any two of the following (20)

- A.
- B.
- C.

Internal Evaluation 10 Mark

B.A.-I Semester-I - Home Assignment

B.A.-I Semester-II – Unit Test

Shivaji University ,Kolhapur
Revised Syllabus of B.A. Part II
Semester III
Labour Welfare
(I.D.S. Paper No.I)
From June 2019

Preamble : Labour Welfare is one of the Important branches of Economics . Labour is being considered as most important productive factor in economy. The study of labour welfare helps in understanding the labour welfare and problems, searching policy means to maximize the labour welfare. The students will understand nature, scope and problems associated with labour welfare with special reference to India.

Unit I : Introduction to Labour Welfare. (15 Lectures)

- 1.1 Definition and Meaning.
- 1.2 Nature and Scope
- 1.3 Objectives of Labour Welfare
- 1.4 Difference between labour Welfare and Social work

Unit II : Issues in Labour Welfare (15 Lectures)

- 2.1. Importance of Labour Welfare
- 2.2. Classification of Labour Problems.
- 2.3. Problems of Child Labour
- 2.4. Problems of Female Labour.

Unit III : International Labour Organization (ILO) and India. (15 Lectures)

- 3.1. Objectives, Structure and Governance of ILO
- 3.2. Achievements of ILO – Conventions, Resolutions
- 3.3. International Labour Standards
- 3.4. ILO and Indian Labour Welfare – Youth Development Policy of HRD

Unit IV : Trade Union and Labour Welfare (15 Lectures)

- 4.1. Definition, Meaning and Objectives of Trade Union.
- 4.2. Importance and Functions of Trade Union.
- 4.3. Role of Trade Union in Labour Welfare.
- 4.4. Problems of Trade Union Movement.

Reference Books

1. Kannapon, S.C, (1993), Employment Problems and Urban Labour Markets in Development Economy, Vol-I &II, Macmillan, London
2. Papola, T.S and Sharma A.N. 9Eds) (1999), Gender and Employment in India, Vikas Publishing House, New Delhi
3. Deshpande L.K and Sandesara J.C (Eds), (1970), Wage Policy and wages determination in India, Bombay University Press, Bombay
4. Memoria, C.B. (1966), Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad
5. Punekar, S.D. (1978), LAbour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay
6. Singh, V.B. (Ed), Industrial Labour in India, Population Prakashan, Bombay
7. Misra, L (2000), Child Labour in India, Oxford University Press, New Delhi
8. Riveros L, (1990), Labour Market Policies and Labour Market Reforms in Socialist Economics, World Bank, Washington D.C
9. Indian Society for Labour Economics (ISLE) journals
10. Dr. T. N. Bhagoliwala : Economics of Labour and Industrial Relations, Sahitya publication, Agra.
11. Government of India : India Labour year Book, (Ministry of Labour)
12. Yoder Dale : Labour economic and Labour Problems
13. Pant S.C: Indian Labour Problems.
14. Sacheva and Gupta : Labour and Social welfare AjantaPrakashan Delhi.
15. Indian Journal of Labour Economics
16. Indian Journal of Human Resources
17. NSSO Reports on Employment and Unemployment

Shivaji University ,Kolhapur
Revised Syllabus of B.A. Part II
Semester IV
Labour Welfare (I.D.S. Paper No.II)
From June 2019

Preamble : Labour Welfare is one of the Important branches of Economics . Labour is being considered as most important productive factor in economy. The study of labour welfare helps in understanding the labour welfare and problems, searching policy means to maximize the labour welfare. The students will understand nature, scope and problems associated with labour welfare with special reference to India.

Unit I :Labour Efficiency (15 Lectures)

- 1.1 Concept and Meaning of Labour Efficiency
- 1.2. Determinants of Social Security
- 1.3.Measurementof Labour Efficiency
- 1.4.Measures to Improve Labour Efficiency

Unit II . Social Security (15. Lectures)

- 2.1. Meaning & Objectives of Social Security
- 2.2. Need for Social Security
- 2.3. Components of Social Security
- 2.4. Social Insurance, Social Assistance and Social Security.

Unit III . Labour Welfare Programmes in India (15Lectures)

- 3.1. Brief Review of Labour Welfare Programmes
- 3.2. New Economic Policy after 1991and Labour Welfare.
- 3.3. Labour Welfare Problems of Organized Sector
- 3.4. Labour Welfare Problems of UnorganizedSector.

Unit 4. Social Security Legislations in India (15Lectures)

- 4.1. Genesis of Social Security legislation in India
- 4.2 Workers Compensation Act 1923.
- 4.3. Employees Provident Fund Act 1952.
- 4.4 Child Labour (Prohibition & Regulation) Act 1986 - Maternity Benefit Act 1961 - New amendment 2017

Reference Books

1. Kannapon, S.C, (1993), Employment Problems and Urban Labour Markets in Development Economy, Vol-I &II, Macmillan, London
2. Papola, T.S and Sharma A.N. 9Eds) (1999), Gender and Employment in India, Vikas Publishing House, New Delhi
3. Deshpande L.K and Sandesara J.C (Eds), (1970), Wage Policy and wages determination in India, Bombay University Press, Bombay
4. Memoria, C.B. (1966), Labour Problems and Social Welfare in India, Kitab Mahal, Allahabad
5. Punekar, S.D. (1978), Labour Welfare, Trade Unionism and Industrial Relations, Himalaya Publishing House, Bombay
6. Singh, V.B. (Ed), Industrial Labour in India, Population Prakashan, Bombay
7. Misra, L (2000), Child Labour in India, Oxford University Press, New Delhi
8. Riveros L, (1990), Labour Market Policies and Labour Market Reforms in Socialist Economics, World Bank, Washington D.C
9. Indian Society for Labour Economics (ISLE) journals
10. Dr. T. N. Bhagoliwala: Economics of Labour and Industrial Relations, Sahitya publication, Agra.
11. Government of India : India Labour year Book, (Ministry of Labour)
12. Yoder Dale : Labour economic and Labour Problems
13. Pant S.C: Indian Labour Problems.
14. Sacheva and Gupta: Labour and Social welfare Ajanta Prakashan Delhi.
15. Indian Journal of Labour Economics
16. Indian Journal of Human Resources

SHIVAJI UNIVERSITY, KOLHAPUR
REVISED SYLLABUS OF B.A. PART II

Principles of Co-operation

Course – I GE (IDS)

To be introduced from June 2019

Semester III

PREAMBLE:

The objective of this paper is to create awareness about the working of co-operatives in Rural and Urban area. The Co-operative movement has been considered as the third important sector in the economy followed by private and public sector. The principles of co-operation and the values of the co-operative institutions need to be studied in Indian Context.

UNIT I: INTRODUCTION OF CO-OPERATION (15 Lectures)

- 1.1 Meaning and Definition of Co-operation
- 1.2 Features and Importance of Co-operation
- 1.3 Principles of Co-operation- Development and Manchester Co-operative Principles
- 1.4 International Co-operative Alliance (ICA) – Organization and Functions

UNIT II: CO-OPERATION AS A FORM OF ORGANIZATION (15 Lectures)

- 2.1: Capitalism – Features, Merits and Demerits
- 2.2: Socialism – Features, Merits and Demerits
- 2.3: Co-operation – A Golden mean between Capitalism and Socialism
- 2.4: Role of Co-operation in Mixed Economy

UNIT III: ROLE OF STATE IN CO-OPERATION (15 Lectures)

- 3.1: Role of State in the development of Co-operative movement
- 3.2: Co-operative Judicial System
- 3.3: Role of Co-operative Registrar
- 3.4: Effects of Globalization in Co-operative Movement

UNIT IV: CO-OPERATIVE AUDIT (15 Lectures)

- 4.1: Meaning and Need of Cooperative Audit
- 4.2: Need and Types of Co-operative Audit
- 4.3: Role of Co-operative Auditor

4.4: Merits and Demerits of Co-operative Audit System

REFERENCES:

1. Bedi R.D – Theory, history and practice of Co-operation. Loyal Book Depot, Meerut
2. Datta and Sundaram – Indian Economy, S. Chand and Company, New Delhi
3. Dr. C. N. Sontakki – Co-operative Development, Sheth Publication Mumbai
4. Hajela T. N – Principles, Problems and Practice of Co-operation, ShivalalAgarwal Publication, Agra
5. Mathur B.S – Co-operation in India, SahityaBhavan, Agra
6. Mukhi H. R. –Co-operation in India and Abroad, R. B. Publications
7. Dr. Memoria C.B &Saksena R. D – Co-operation in India, KitabMahal Allahabad
8. Karve D.G – Co-operative Principles and Substance
9. Kamat G. S – Principles, Practice and Management of Co-operation

SHIVAJI UNIVERSITY, KOLHAPUR
REVISED SYLLABUS OF B.A. PART II
CO-OPERATIVES IN INDIA

Course – II GE (IDS)

From June 2019

Semester IV

PREAMBLE:

The objective of this paper is to create awareness about the working of co-operatives on Rural and Urban area. The Co-operative movement has been considered as the third important sector in the economy followed by private and public sector. The principles of co-operation and the values of the co-operative institutions need to be studied in Indian Context.

UNIT I: CO-OPERATIVE CREDIT IN INDIA (15 Lectures)

- 1.1: Primary Agricultural Credit Co-operative Societies - Functions, Importance and Problems
- 1.2: District Central Co-operative Banks- Functions, Importance and Problems
- 1.3: State Co-operative Bank – Functions, Importance and Problems
- 1.4: Urban Co-operative Banks – Functions, Problems and Remedies

UNIT II: CO-OPERATIVE MARKETING IN INDIA (15 Lectures)

- 2.1: Need and Importance
- 2.2: Structure of Co-operative Marketing

2.3: Problems and Remedies of Co-operative Marketing

2.4: NAFED – Objectives and Functions

UNITIII: CO-OPERATIVE PROCESSING SOCIETIES IN INDIA (15 Lectures)

3.1: Role of Co-operative processing societies in rural Development

3.2: Sugar Co-operatives - Problems and Remedies

3.3: Dairy Co-operatives - Problems and Remedies

3.4: Women Empowerment through Co-Operative Processing

UNITIV: ROLE OF NATIONAL INSTITUTIONS IN CO-OPERATION (15 Lectures)

4.1: National Bank for Agricultural and Rural Development (NABARD)

4.2: National Co-operative Development Corporation (NCDC)

4.3: National Co-operative Union of India (NCUI)

4.4: 97th Constitutional Amendment and main changes in Maharashtra Co-operative Societies Act

REFERENCES:

1. Bedi R.D – Theory, history and practice of Co-operation. Loyal Book Depot, Meerut
2. Datta and Sundaram – Indian Economy, S. Chand and Company, New Delhi
3. Dr. C. N. Sontakki – Co-operative Development, Sheth Publication Mumbai
4. Hajela T. N – Principles, Problems and Practice of Co-operation, Shivalal Agarwal Publication, Agra
5. Mathur B.S – Co-operation in India, Sahitya Bhavan, Agra
6. Mukhi H. R. – Co-operation in India and Abroad, R. B. Publications
7. Dr. Memoria C.B & Saksena R. D – Co-operation in India, Kitab Mahal Allahabad
8. Karve D.G – Co-operative Principles and Substance
9. Kamat G. S – Principles, Practice and Management of Co-operation
10. Singh L.P – Co-operative Marketing
11. Sahakar Jagat – Various Issues

Shivaji University, Kolhapur
Revised Syllabus of B.A. II
To be introduced from June, 2019
Money and Banking Paper No. - IV
(Semester III)

Preamble:

To create the awareness among the students and Job Prospects in Banks and Financial Sector. Clear understanding of the operation of banks and financial institutions to the students with practical inputs.

Unit I: Introduction to Banking

15 Lectures

- 1.1 Meaning and Functions of Commercial Banks
- 1.2 Types of Banks - Public, Private, Foreign and Cooperative
- 1.3 Principles and Investment Policy of Commercial Banks - Balance Sheet of banks
- 1.4 Processes of Credit Creation and its Limitations

Unit II: Practical Banking

15 Lectures

- 2.1 Types and features of Bank Accounts
- 2.2 Opening, KYC, Operating and Closing of an Account
- 2.3 Banker's and Customer's Rights and Obligations
- 2.4 Negotiable Instruments: Main Features

Unit III: Reserve Bank of India

15 Lectures

- 3.1 History and Organizational Structure
- 3.2 Functions of RBI - Traditional and Developmental
- 3.3 Monetary Policy - Meaning and Objectives
- 3.4 Instruments of Credit Control

Unit IV: Banking Practices in India

15 Lectures

4.1 Bank Ombudsman Scheme- Meaning, Power and Duties

4.2 Meaning, Process and Importance of Credit (Loan) Appraisal

4.3 Advantages and Disadvantages of Bank Mergers

4.4 Meaning, Causes and Remedies of NPA

Suggested Additional Readings:

1. Bhole L.M. (2009), Financial Institutions and Market, Tata McGraw Hill, New Delhi
2. BhasinNitin(2010), Financial Institutions and Financial Markets in India :Functioning and Reforms. New Century Publications, New Delhi
3. Berg Braam van den (2015),Understanding Financial Markets & Instruments, Academy of Financial Market, <https://eagletraders.com/books/afm/afm4.php>
4. Cade, Eddie (1998) Managing Banking Risks, Woodhead Publishing Ltd., in association with The Chartered Institute of Bankers, England.
5. Gupta, L.C (1997),Stock Exchange Trading in India; Society for Capital Market Research and Development
6. Sethi Jyotsna and Bhatia Nishwan (2003),Elements of Banking and Insurance, Prentice Hall of India,New Delhi
7. National Stock Exchange (2015), Securities Market (Basic) Module, NCFM, National Stock Exchange of India Limited
8. Joshi Vasant C. and Joshi Vinay V (1998), Managing Indian Banks: The Challenges Ahead, Response Books, New Delhi.
9. Vasant Desai, "Bank and Institutional Management", Himalaya Publishing House.
10. Dr. P. K. Srivastava, "Banking Theory and Practices", Himalaya Publishing House
11. GordenNatrajan “Banking Theory law and practices” Himalaya publishing Houses.
12. M.Y. Khan, “Indian Financial System”, Tata McGraw Hill.

Shivaji University, Kolhapur
Revised Syllabus of B.A. II
To be introduced from June, 2019
Banks and Financial Markets Paper No. - VI
(Semester- IV)

Preamble:

To create the awareness among the students and Job Prospects in Banks and Financial Sector. Clear understanding of the operation of banks and financial institutions to the students with practical inputs.

Unit I: Financial System in India

15 Lectures

- 1.1 Structure and Importance of Financial System
- 1.2 Features and Structure of Money Market in India
- 1.3 Features and Structure of Capital Market in India and Role of SEBI
- 1.4 Functions of Stock Market in India

Unit II: Indian Financial Institutions

15 Lectures

- 2.1 Non-Bank Financial Institutions: Concept and Growth
- 2.1 Loan companies in India, Functioning and problem
- 2.3 Functions of EXIM Bank
- 2.4 Mutual Funds: Meaning, Types and Importance

Unit III: Banking Reform

15 Lectures

- 3.1 Recommendation of the Narasimham Committee (1991)
- 3.2 Recommendation of the Narasimham Committee (1998)
- 3.3 Foreign Direct Investment in Banking
- 3.4 Concept of Payment Bank and Small Finance Bank

Unit IV: E-Banking Service

15 Lectures

4.1 E-Banking – Meaning, Features and Types

4.2 Features of Credit and Debit card

4.3 NEFT and RTGS, Cheque Truncation System

4.4 Cyber Crimes in Banking – Meaning, Types and Precaution

Suggested Additional Readings:

1. Bhole L.M. (2009), Financial Institutions and Market, Tata McGraw Hill, New Delhi
2. BhasinNitin(2010), Financial Institutions and Financial Markets in India: Functioning and Reforms. New Century Publications, New Delhi
3. Berg Braam van den (2015),Understanding Financial Markets & Instruments, Academy of Financial Market, <https://eagletraders.com/books/afm/afm4.php>
4. Cade, Eddie (1998) Managing Banking Risks, Wood head Publishing Ltd., in association with The Chartered Institute of Bankers, England.
5. Gupta, L.C (1997),Stock Exchange Trading in India; Society for Capital Market Research and Development
6. Sethi Jyotsna and Bhatia Nishwan (2003),Elements of Banking and Insurance, Prentice Hall of India,New Delhi
7. National Stock Exchange (2015), Securities Market (Basic) Module, NCFM, National Stock Exchange of India Limited
8. Joshi Vasant C. and Joshi Vinay V (1998), Managing Indian Banks: The Challenges Ahead, Response Books, New Delhi.
9. Vasant Desai, "Bank and Institutional Management", Himalaya Publishing House.
10. Dr. P. K. Srivastava, "Banking Theory and Practices", Himalaya Publishing House
11. Gorden Natarajan “Banking Theory law and practices” Himalaya publishing Houses.
12. M.Y. Khan, “Indian Financial System”, Tata McGraw Hill.
13. Reserve Bank of India,Report on Trend and progress of Banking in India.

Shivaji University Kolhapur

B.A. Part II Economics

Macro Economics -I (Paper-III) (Sem-III)

Preamble: The purpose of teaching this paper is to introduce the basic primary and analytically important concepts, theories and policies in the working of the economy to the learners. It attempts to enable the students to apply various concepts in the process of policy making, planning of measures to ensure and achieve the fundamental objectives of macroeconomic policy.

Unit 1: Introduction to Macro Economics (Periods -15)

- 1.1 Meaning, Definitions, Nature and Scope
- 1.2 Difference between Micro and Macro Economics
- 1.3 Importance and Limitations
- 1.4 Macro Economic Variables

Unit 2: National Income (Periods -15)

- 2.1 Meaning and Definitions
- 2.2 Different concepts: GDP, GNP, NNP, GDP at market prices and at factor cost, Per Capita Income, Personal Income, Disposable Income.
- 2.3 Methods of Measuring National Income: Product, Income and Expenditure.
- 2.4 Difficulties in the measurement of National Income, Importance of National Income Data.

Unit 3: Money and Value of Money (Periods -15)

- 3.1 Definitions and Functions of Money.
- 3.2 Value of Money: Quantity Theory of Money - Transaction Approach, Cash Balance Approach.

3.3 Index Number: Meaning and Types, Construction of Simple and Weighted Index Numbers.

3.4 Importance of Index Number.

Unit 4: Output and Employment

(Periods -15)

4.1 Say's Law of Market.

4.2 Keynesian Theory of Employment.

4.3 Consumption Function: Average Propensity to Consume (APC), Marginal Propensity to Consume (MPC), Factors affecting Consumption function.

4.4 Investment Function, Concept of Multiplier.

Reference Books:

- 1.Jhingan M.L., Macro Economic Theory, Vrinda Publication, Delhi.
- 2.Mithani D.M., Monetary Theory, Vota and Company, Mumbai.
- 3.Mithani D.M., Macro Economics, Himalaya Publishing House.
- 4.Dewett K.K., Modern Economic Theory, S. Chand & Co., Ltd., New Delhi.
- 5.Ackley G, Macro Economics: Theory and Policy, Macmillan, New York.
- 6.keynes J.M., General Theory of Employment, Interest and Money, Macmillan and Co. London.
- 7.Seth M.L., An Introduction to Keynesian Economics, Lakshmi Narain Agarwal, Agra.
- 8.Fisher Irving, The purchasing power of money, Macmillan New York.
- 9.Shaprio Edward, Macro Economic Analysis, Galgotia Publication's New Delhi.
10. Dwivedi D. N (2017) Macro Economics – Theory and Policy; Mc Graw Hill Education
11. Ahuja H. L (2017) Advanced Economic Theory; S. Chand & Company, New Delhi

12. Ahuja H. L (2016) Macro Economics Theory and Practices; S. Chand & Company, New Delhi.
13. प्रा. रामदेशमुख, आधुनिकस्थूलअर्थशास्त्र, विद्याप्रकाशननागपूर.
14. जी. एन. झामरे, स्थूलअर्थशास्त्र, पिंपळापुरेअँडकंपनीपब्लिशर्सनागपूर.
15. पाटील जे. एफ. (२०१४) साकलिक अर्थशास्त्र, फडके प्रकाशन, कोल्हापूर.

Shivaji University Kolhapur

B.A. Part II Economics

Macro Economics - II (Paper-V) (Sem - IV)

Preamble: Macro Economics is aggregative economics which examines the interrelations among the various aggregates. Macro Economics is not only scientific method of analyses, but also a body of empirical economic knowledge. This paper equips the students to understand the basic theoretical framework underling in the field of macro economics.

Unit :1 Inflation

(Periods -15)

- 1.1 Meaning, Definitions and Types
- 1.2 Causes of Inflation
- 1.3 Effects of Inflation
- 1.4 Remedies of Controlling Inflation

Unit :2 Trade Cycles

(Periods -15)

- 2.1 Meaning and Features.
- 2.2 Phases of Trade Cycles.
- 2.3 Theories of Trade Cycles: Hawtrey, Schumpeter.
- 2.4 Control of Trade Cycles.

Unit :3 Public Finance – I

(Periods -15)

3.1 Meaning, Nature and Scope.

3.2 Principle of Maximum Social Advantage.

3.3 Taxation: Direct and Indirect Taxes-Meaning, Merits and Demerits.

3:4 Budget: Budgetary process

Unit: 4 Public Finance-II

(Periods -15)

4.1 Public Expenditure: Meaning and Causes of growth of Public Expenditure.

4.2 Public Debt: Meaning, Sources and Effects.

4.3 Deficit Financing: Meaning, types and Methods.

4.4 Fiscal Policy: Meaning, Objectives and Instruments.

Reference Books:

1.Jhingan M.L., Macro Economics Theory,Vrinda Publication, Delhi.

2.Mithani D.M., Monetary Theory,Vota and Company, Mumbai.

3.Mithani D.M., Macro Economics, Himalaya Publishing House.

4.Dewett K.K., Modern Economic Theory,S.Chand & Co., Ltd., New Delhi.

5.Ackley G, Macro Economics: Theory and Policy, Macmillan, New York.

6.keynes J.M., General Theory of Employment, Interest and money, Macmillan and Co.London.

7.Seth M.L., An Introduction to Keynesian Economics, Lakshmi Narain Agarwal,Agra.

8.Fisher Irving, The purchasing power of money, Macmillan New York.

9.Shaprio Edward, Macro Economic Analysis,Galgotia Publication's New Delhi.

10. Ahuja H. L (2017) Advanced Economic Theory; S. Chand & Company, New Delhi
11. Ahuja H. L (2016) Macro Economics Theory and Practices; S. Chand & Company, New Delhi.
12. Lekhi R. L. (2013) Public Finance; Kalyani Publisher New Delhi.
13. प्रा. रामदेशमुख, आधुनिकस्थूलअर्थशास्त्र, विद्याप्रकाशननागपूर.
14. जी. एन. झामरे, स्थूलअर्थशास्त्र, पिंपळापुरेअँडकंपनीपब्लिशर्सनागपूर.
15. पाटील जे. एफ. (२०१४) साकलिक अर्थशास्त्रब, फडके प्रकाशन, कोल्हापूर.

SHIVAJI UNIVERSITY, KOLHAPUR



Revised syllabus for
Bachelor of Arts (Part – III)

SEMESTER V & VI

ECONOMICS

Syllabus to be implemented from June 2020 onwards

Equivalence B.A.III Economics Sem- V

Sem No.	Paper No.	Title of Old Paper	Sem No.	Discipline	Title of New Paper
V	VII	Micro Economics	V	Economics Course - 7	Principles of Micro Economics- I
V	VIII	Research Methodology in Economics (Part I)	V	Economics Course- 10	Research Methodology in Economics- I
V	IX	History of Economic Thoughts (Part I)	V	Economics Course - 11	History of Economic Thoughts- I
V	X	Economics of Development	V	Economics Course - 8	Economics of Development
V	XI	International Economics (Part I)	V	Economics Course - 9	International Economics- I

Equivalence B.A.III Economics Sem- VI

Sem No.	Paper No.	Title of Old Paper	Sem No.	Economics Course	Title of New Paper
VI	XII	Market and Pricing	VI	Economics Course- 12	Principles of Micro Economics- II
VI	XIII	Research Methodology in Economics (Part II)	VI	Economics Course- 15	Research Methodology in Economics- II
VI	XIV	History of Economic Thoughts (Part II)	VI	Economics Course- 16	History of Economic Thoughts- II
VI	XV	Economics of Planning	VI	Economics Course- 13	Economics of Planning
VI	XVI	International Economics (Part II)	VI	Economics Course- 14	International Economics- II

Structure of Course
Revised syllabus of B.A. Part III (Economics)

Sr. No.	Semester	Title of the Paper	Discipline	Distribution of Credit	Workload	Total Credits	Theory Marks	Term work seminar
1	V	Principles of Micro Economics- I	Economics Course- 7	4	4 Lectures / week	20	40	10
2	V	Economics of Development	Economics Course- 8	4	4 Lectures / week		40	10
3	V	International Economics- I	Economics Course- 9	4	4 Lectures / week		40	10
4	V	Research Methodology in Economics- I	Economics Course- 10	4	4 Lectures / week		40	10
5	V	History of Economic Thoughts- I	Economics Course- 11	4	4 Lectures / week		40	10
Sr. No.	Semester	Title of the Paper	Discipline	Distribution of Credit	Workload	Total Credits	Theory Marks	Term work Group Project
6	VI	Principles of Micro Economics- II	Economics Course- 12	4	4 Lectures / week	20	40	10
7	VI	Economics of Planning	Economics Course- 13	4	4 Lectures / week		40	10
8	VI	International Economics- II	Economics Course- 14	4	4 Lectures / week		40	10
9	VI	Research Methodology in Economics- II	Economics Course- 15	4	4 Lectures / week		40	10
10	VI	History of Economic Thoughts- II	Economics Course- 16	4	4 Lectures / week		40	10

B. A. III Economics (Semester V) (CBCS Pattern)

Principles of Micro Economics- I

(Elective Course- 7)

Course Outcomes: After successful completion of this course, the students will be able to:

- Explain what economics is and explain why it is important
- Understand consumer decision making and consumer behaviour
- Define the concept of utility and satisfaction
- Derive revenue and cost figures as well as curves
- Understand producer decision making and producer behaviour

Module- I Introduction to Micro Economics

(Teaching Hours- 15, Credits- 01)

- 1.1 Meaning, nature and scope
- 1.2 Importance and limitations
- 1.3 The Economic Problem- Scarcity and Choice; concept of opportunity cost
- 1.4 Framework of economic analysis- Concept, module, parameters

Module- II Consumer's Behaviour

(Teaching Hours- 15, Credits- 01)

- 2.1 Utility- concept, total and marginal utility
- 2.2 Cardinal utility approach: law of diminishing marginal utility
- 2.3 Ordinal utility approach: meaning and properties of indifference curve
- 2.4 Consumer's equilibrium and consumer's surplus

Module- III Demand and Supply Analysis

(Teaching Hours- 15, Credits- 01)

- 3.1 Law of demand, demand function, determinants of demand
- 3.2 Elasticity of demand: price, income, cross and substitution
- 3.3 Measurement and importance
- 3.4 Law of supply, supply function and elasticity

Module- IV Theory of Production

(Teaching Hours- 15, Credits- 01)

- 4.1 Law of variable proportions and law of returns to scale
- 4.2 Economies and diseconomies of scale
- 4.3 Revenue- total, marginal and average revenue
- 4.4 Cost concepts and their relationship, cost curves- short run and long run

BASIC READING LIST:

1. Dominic Salvator (2012) – Principles of Micro Economics, 5th edition, Oxford University Press, Oxford.
2. John B. Taylor & Akila Weerapana, (2011) 'Principles of Economics', 7th Edition, Cengage Learning, India, New Delhi.

3. Koutsoyiannis, A. (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
4. Lipsey Richard G., (latest edition), An Introduction to Positive Economics, Weidenfeld & Nicolson, London.
5. Lipsey, R.G. and K.A. Chrystal (latest edition), Principles of Economics (IX Ed.), Oxford University Press, Oxford.
6. Mankiw, N. Gregory (2008), Principles of Microeconomics, 5th Edition, Cengage Learning India, New Delhi.
7. Mansfield, E (latest edition), Microeconomics (9th Ed) W.W. Norton and Company, New York.
8. Pindyck and Rubinfeld (latest edition)- Micro Economics, Pearson Education, New Delhi.
9. Ray, N.C. (latest edition), An introduction to Microeconomics, Macmillan company of India Ltd.
10. Samuelson, P.A. and W.D. Nordaus (latest edition), Economics, Tata McGraw Hill, New Delhi.
11. Stonier, A.W. and D.C. Hague (latest edition), A Textbook of Economic Theory, ELBS and Logman Group, London.
12. Varian, Hall (1992): Microeconomic Analysis, Third Edition, W. W. Norton & Company, Inc, New York.

B. A. III Economics (Semester VI) (CBCS Pattern)

Principles of Micro Economics- II

(Elective Course- 12)

Course Outcomes: After successful completion of this course, the students will be able to:

- Identify the market structure
- Analyse the economic behaviour of individual firms and markets
- Analyse a firm's profit maximising strategies under different market conditions
- Understand the factor pricing

Module- I Perfect Competition

(Teaching Hours- 15, Credits- 01)

- 1.1 Meaning and characteristics
- 1.2 price and output determination under perfect competition
- 1.3 Equilibrium of the firm and industry in the short run
- 1.4 Equilibrium of the firm and industry in the long run

Module- II Monopoly

(Teaching Hours- 15, Credits- 01)

- 2.1 Meaning and characteristics
- 2.2 Price discrimination and degrees
- 2.3 Equilibrium of a monopoly firm in the short run and long run
- 2.4 Monopoly and capacity loss

Module- III Imperfect Competition**(Teaching Hours- 15, Credits- 01)**

- 3.1 Meaning and characteristics
- 3.2 Price- output determination
- 3.3 Product differentiation
- 3.4 Oligopoly and duopoly- meaning and characteristics

Module- IV Factor Pricing**(Teaching Hours- 15, Credits- 01)**

- 4.1 Marginal productivity theory
- 4.2 Modern theory of rent
- 4.3 Classical and Keynesian theory of interest
- 4.4 Risk and uncertainty theory of profit

BASIC READING LIST:

1. Dominic Salvator (2012) – Principles of Micro Economics, 5th edition, Oxford University Press, Oxford.
2. John B. Taylor & Akila Weerapana, (2011) ‘Principles of Economics’, 7th Edition, Cengage Learning, India, New Delhi.
3. Koutsoyiannis, A. (1979), Modern Microeconomics, 2nd Edition, Macmillan Press, London.
4. Lipsey Richard G., (latest edition), An Introduction to Positive Economics, Weidenfeld & Nicolson, London.
5. Lipsey, R.G. and K.A. Chrystal (latest edition), Principles of Economics (IX Ed.), Oxford University Press, Oxford.
6. Mankiw, N. Gregory (2008), Principles of Microeconomics, 5th Edition, Cengage Learning India, New Delhi.
7. Mansfield, E (latest edition), Microeconomics (9th Ed) W.W. Norton and Company, New York.
8. Pindyek and Rubinfeld (latest edition)- Micro Economics, Pearson Education, New Delhi.
9. Ray, N.C. (latest edition), An introduction to Microeconomics, Macmillan company of India Ltd.
10. Samuelson, P.A. and W.D. Nordaus (latest edition), Economics, Tata McGraw Hill, New Delhi.
11. Stonier, A.W. and D.C. Hague (latest edition), A Textbook of Economic Theory, ELBS and Logman Group, London.
12. Varian, Hall (1992): Microeconomic Analysis, Third Edition, W. W. Norton & Company, Inc, New York.

B. A. III Economics (Semester V) (CBCS Pattern)
Economics of Development
 (Elective Course- 8)

Course Outcomes: After successful completion of this course, the students will be able to:

- Identify the dimensions of development
- Distinguish the fundamental and contemporary development debate
- Know the theories of economic development
- Realise the role of state in economic development

Module- I: Basic concepts of economic development (Teaching Hours- 15, Credits- 01)

- 1.1 Meaning of economic development- Distinction between economic development and growth
- 1.2 Indicators of economic development
- 1.3 Obstacles to economic development
- 1.4 Sustainable and green development

Module- II: Developing and developed countries (Teaching Hours- 15, Credits- 01)

- 2.1 Underdevelopment and characteristics
- 2.2 Factors affecting economic development
- 2.3 Features of economic growth
- 2.4 Developmental status of Indian economy

Module- III: Theories of economic development (Teaching Hours- 15, Credits- 01)

- 3.1 Classical approach to development- Ricardian Theory
- 3.2 Myrdal's theory of economic development
- 3.3 Rostow's stages of economic growth
- 3.4 Theory of balanced and unbalanced growth

Module- IV: Resources for economic development (Teaching Hours- 15, Credits- 01)

- 4.1 Capital formation, Technology and economic development
- 4.2 Human capital and economic development
- 4.3 FDI, FIIs, Portfolio and Aid
- 4.4 Role of state in economic development

BASIC READING LIST:

1. Adelman, Irma (1962), *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
2. Behrman, S. and T.N. Srinivasan (1995), *Handbook of Development Economics*, Vol. 1 to 3, Elsevier, Amsterdam. Economics 31
3. Ghatak, Subrata (1986), *Introduction to Development Economics*, Allen and Unwin, London.
4. Hayami, Yujiro and Yoshihisa Godo (1997), *Development Economics*, Oxford University Press, New York.
5. Higgins, Benjamin (1980), *Economic Development*, Norton, New York.

6. Kindleberger, C.P. (1965), *Economic Development*, 3e, McGraw Hill, New York.
7. Meier, Gerald M. and James E. Rauch (2005), *Leading Issues in Economic Development*, 6e, Oxford University Press, New Delhi.
8. Myint, Hla (1965), *The Economics of Underdeveloped Countries*, Preager, New York.
9. Myint, Hla (1971), *Economic Theory and Under Developed Countries*, Oxford University Press, New York.
10. Thirlwal, A.P. (1999), (6th Edition), *Growth and Development*, Macmillan, London.
11. Bhagwati, J. and P. Desai (1970), *India : Planning for Industrialization*, Oxford University Press, London.
12. Boserup, Ester (1981), *Population and Technological Change : A Study of Long Term Change*, Chicago University Press, Chicago.
13. Brahmananda, P.R. and C.N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
14. Puri V. K. And S. K. Misra (2016), *Economics of Development and Planning*, Himalaya Publishing House.
15. Datta Gaurav and Ashwini Mahajan (2016), *Indian Economy*, S. Chand Publishing, New Delhi
16. Todaro Michael P. And Stephen C. Smith (2017), *Economic Development*, Pearson Education.
17. Chakravarti, Sukhamoy (1982), *Alternative Approaches to the Theory of Economic Growth*, Oxford University Press, Delhi.
18. Chakravarty, Sukhamoy (1987), *Development Planning : The Indian Experience*, Clarendon Press, Oxford.
19. Jhingan, M.L. (2005) *The Economics of Development and Planning* , Vrinda Publications Ltd. Delhi
20. Lekhi, R.K. (2005) *Economics of Development and Planning*, Kalyani Publishers, Delhi.
21. Patil, J. F. (et al) (2005) *Economics of Growth and Development* (Marathi) , Phadake Publishers, Kolhapur.
22. Patil, J.F. & Tamhankar, P.J. (1990) *Economics of Development and Planning* (Marathi), Continental Publishers, Pune.
23. Kavimandan (1975), *Economics of Development and Planning* (Marathi), Mangesh Prakashan , Nagpur

B. A. III Economics (Semester VI) (CBCS Pattern)

Economics of Planning

(Elective Course- 13)

Course Outcomes: After successful completion of this course, the students will be able to:

- Get acquainted with economic planning and its importance in development
- Get acquainted with development of planning and planning machinery in India
- Evaluate sectoral performance of the Indian economy
- Compare and analyse Indian models of economic development

Module- I: Introduction to economic planning

(Teaching Hours- 15, Credits- 01)

- 1.1 Meaning, Case for and against economic planning
- 1.2 Genesis of planning
- 1.3 Types of planning
- 1.4 Conditions of success of planning

Module- II: Issues in economic planning (Teaching Hours- 15, Credits- 01)

- 2.1 The choice of techniques: labour and capital intensive
- 2.2 Capital output ratio: Importance and factors affecting COR
- 2.3 Input output analysis
- 2.4 Project evaluation

Module- III: Planning in India- I (Teaching Hours- 15, Credits- 01)

- 3.1 Evolution of planning in India
- 3.2 Objectives and evaluation of planning
- 3.3 Planning Commission and National Development Council
- 3.4 NITI Ayog- Need for establishment, organization, objectives and work

Module- IV: Planning in India- II (Teaching Hours- 15, Credits- 01)

- 4.1 Plan models in Indian plans
- 4.2 Agricultural development under plans
- 4.3 Industrial development under plans
- 4.4 Services sector development under plans

BASIC READING LIST:

1. Behrman, S. and T.N. Srinivasan (1995), *Handbook of Development Economics*, Vol. 1to 3, Elsevire, Amsterdam. Economics 31
2. Hayami, Yujiro and Yoshihisa Godo (1997), *Development Economics*, Oxford University Press, New York.
3. Kindleberger, C.P. (1965), *Economic Development*, 3e, McGraw Hill, New York.
4. Meier, Gerald M. and James E. Rauch (2005), *Leading Issues in Economic Development*, 6e, Oxford University Press, New Delhi.
5. Myint, Hla (1971), *Economic Theory and Under Developed Countries*, Oxford University Press, New York.
6. Thirlwal, A.P. (1999), (6th Edition), *Growth and Development*, Macmillan, London.
7. Bhagwati, J. and P. Desai (1970), *India : Planning for Industrialization*, Oxford University Press, London.
8. Brahmananda, P.R. and C.N. Vakil (1956), *Planning for an Expanding Economy*, Vora and Co., Bombay.
9. Puri V. K. And S. K. Misra (2016), *Economics of Development and Planning*, Himalaya Publishing House.
10. Datta Gaurav and Ashwini Mahajan (2016), *Indian Economy*, S. Chand Publishing, New Delhi
11. Chakravarty, Sukhamoy (1987), *Development Planning : The Indian Experience*, Clarendon Press, Oxford.
12. Jhingan, M.L. (2005) *The Economics of Development and Planning* , Vrinda Publications Ltd. Delhi
13. Lekhi, R.K. (2005) *Economics of Development and Planning*, Kalyani Publishers, Delhi.
14. Patil, J. F. (et al) (2005) *Economics of Growth and Development (Marathi)* , Phadake Publishers, Kolhapur.
15. Patil, J.F. & Tamhankar, P.J. (1990) *Economics of Development and Planning (Marathi)*, Continental Publishers, Pune.

B. A. III Economics (Semester V) (CBCS Pattern)
International Economics- I
 (Elective Course- 9)

Course Outcomes: After successful completion of this course, the students will be able to:

- Explain international trade
- Understand the measurement of gains from international trade
- Distinguish different rates of exchange
- Measure the terms of trade

Module- I: Trade and Trade Theories

(Teaching Hours- 15, Credits- 01)

- 1.1 Importance of the study of International Economics
- 1.2 Inter-regional and international trade: similarities and dissimilarities.
- 1.3 Ricardian theory of international trade
- 1.4 Hecksher – Ohlin Theory

Module- II: Gains from International Trade

(Teaching Hours- 15, Credits- 01)

- 2.1 Gains from international trade and their measurement
- 2.2 Trade as an engine of economic growth.
- 2.3 Terms of trade: meaning, concepts and application
- 2.4 Factors affecting terms of trade

Module- III: Exchange Rate

(Teaching Hours- 15, Credits- 01)

- 3.1 Meaning of exchange rate, Purchasing Power Parity theory
- 3.2 Fixed Exchange Rate – meaning, merits and demerits
- 3.3 Flexible Exchange Rate – meaning, merits and demerits
- 3.4 Floating Exchange Rate – meaning, merits and demerits

Module- IV: Tariffs and Quotas

(Teaching Hours- 15, Credits- 01)

- 4.1 Free Trade: meaning, arguments for and against
- 4.2 Trade Protection Policy: meaning, arguments for and against.
- 4.3 Tariffs: meaning, types and effects
- 4.4 Quotas: meaning, types and effects.

BASIC READING LIST:

- 1 Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- 2 Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass.
- 3 Crockett. A. (1982), International Money: Issue and Analysis, ELBS and Nelson, London.

- 4 Greenaway. D. (1983), International Trade Policy, MacMillan Publishers Ltd., London.
- 5 Heller, H. R. (1968), International Monetary Economics, Prentice Hall. India.
- 6 Joshi V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2001, Oxford
- 7 Kenan, P.B. (1994), The International Economy, Cambridge University Press, London.
- 8 Kindlberger, C. P. (1973), International Economics, R.D. Irwin, Homewood.
- 9 Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
- 10 Mithani D.M. (Reprint-2009) International Economics, Himalaya Publishing House, New Delhi.
- 11 Nayyar, D. (1976) : India's Exports and Export Policies in the 1960s, Cambridge University Press, Cambridge.
- 12 Panchmukhi, V. R. (1978), Trade Policies of India: A Quantitative Analysis, Concept University Press, Delhi.
- 13 Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press Ltd., India.
- 14 Ruddar Datt & K.P.M. Sundaram, (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi
- 15 Salvatore, D. L. (1997), International Economics, Prentice- Hall, Upper Saddle River, N. J.
- 16 Singh, M. (1964), India Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, Oxford.
- 17 Sodersten, Bo (1991), International Economics, MacMillan Press Ltd. London

B. A. III Economics (Semester VI) (CBCS Pattern)

International Economics- II

(Elective Course- 14)

Course Outcomes: After successful completion of this course, the students will be able to:

- Distinguish between balance of trade and balance of payments
- Analyse the balance of payments
- Understand the various types of foreign capital
- Analyse the impact of international institutions on Indian economy

Module- I: Balance of Trade and Balance of Payments (Teaching Hours- 15, Credits- 01)

- 1.1 Balance of Trade and Balance of Payments
- 1.2 Importance of Balance of Payments
- 1.3 Disequilibrium in Balance of Payments: Causes and Consequences
- 1.4 Measures to correct disequilibrium in Balance of Payments

Module- II: Foreign Trade of India since 1991 (Teaching Hours- 15, Credits- 01)

- 2.1 Volume, composition and direction
- 2.2 Exim Policy of 2014-19
- 2.3 Trade administration of India
- 2.4 Convertibility of Rupee: Meaning and types.

Module- III: Foreign Capital in India (Teaching Hours- 15, Credits- 01)

- 3.1 Need for Foreign Capital
- 3.2 Types of Foreign Capital
- 3.3 Foreign Capital Policy of Government of India
- 3.4 Trends in Foreign Direct Investment in India

Module- IV: International Institutions and India (Teaching Hours- 15, Credits- 01)

- 4.1 IMF: Objectives and Functions
- 4.2 IBRD: Objectives, Functions
- 4.3 ADB: Objectives, Functions
- 4.4 WTO: Objectives, Functions

BASIC READING LIST:

- 1 Aggarwal, M. R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
- 2 Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge University Press, Mass.
- 3 Crockett. A. (1982), International Money: Issue and Analysis, ELBS and Nelson, London.
- 4 Greenaway. D. (1983), International Trade Policy, MacMillan Publishers Ltd., London.
- 5 Heller, H. R. (1968), International Monetary Economics, Prentice Hall. India.
- 6 Joshi V. and I.M.D. Little (1998), India's Economic Reforms, 1999-2001, Oxford
- 7 Kenan, P.B. (1994), The International Economy, Cambridge University Press, London.
- 8 Kindlberger, C. P. (1973), International Economics, R.D. Irwin, Homewood.
- 9 Krugman, P. R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foresman.
- 10 Mithani D.M. (Reprint-2009) International Economics, Himalaya Publishing House, New Delhi.
- 11 Nayyar, D. (1976) : India's Exports and Export Policies in the 1960s, Cambridge University Press, Cambridge.
- 12 Panchmukhi, V. R. (1978), Trade Policies of India: A Quantitative Analysis, Concept University Press, Delhi.
- 13 Patel, S. J. (1995), Indian Economy Towards the 21st Century, University Press Ltd., India.
- 14 Ruddar Datt & K.P.M. Sundaram, (2018), Indian Economy, S. Chand & Co. Ltd., New Delhi
- 15 Salvatore, D. L. (1997), International Economics, Prentice- Hall, Upper Saddle River, N. J.
- 16 Singh, M. (1964), India Export Trends and the Prospects for Self-sustained Growth, Oxford University Press, Oxford.
- 17 Sodersten, Bo (1991), International Economics, MacMillan Press Ltd. London

B. A. III Economics (Semester V) (CBCS Pattern)

Research Methodology in Economics- I

(Elective Course- 10)

Course Outcomes: After successful completion of this course, the students will be able to:

- Get acquainted with the basic concepts of research and its methodologies.
- Select and define appropriate research problem and parameters.

Module- I: Introduction to research in economics (Teaching Hours- 15, Credits- 01)

- 1.1 Meaning, definitions and objectives of research
- 1.2 Types of research
- 1.3 Significance of research
- 1.4 Areas of economic research

Module- II: Literature review and research design (Teaching Hours- 15, Credits- 01)

- 2.1 Literature review- meaning, need, how to carry out a literature review?
- 2.2 Research design- steps in research design
- 2.3 Features of good research design
- 2.4 Importance of research design

Module- III: Hypothesis and concept (Teaching Hours- 15, Credits- 01)

- 3.1 Meaning and definition, kinds of hypothesis
- 3.2 Features of hypothesis
- 3.3 Importance of hypothesis
- 3.4 Concept- meaning, conceptualization, formal and operational definition of concept

Module- IV: Data collection (Teaching Hours- 15, Credits- 01)

- 4.1 Primary and secondary data
- 4.2 Primary data collection methods- observation, questionnaire, interview
- 4.3 Sources of secondary data
- 4.4 Importance of data collection

BASIC READING LIST:

1. Goode and Hatt (1981), Methods in Social Research, McGraw Hill International Book Company, New Delhi.
2. Kerliger F.N. (1983), Foundation of Behavioural Research, Surjeet Publication, Delhi.
3. Young P. V. (1960), Scientific Social Survey and Research, Asia Publication House, Mumbai.
4. Kothari C.R. (1993), Research Methodology-Methods and Techniques, Wiley Eastern Ltd., New Delhi.
5. Lundbrg G.A. (1960), Social Research, Longmans Green and Company, New York.

6. Herekar P.M. (2019), Research Methodology and Project Work, Phadake Prakashan, Kolhapur.
7. Settiz Claire, Jahoda Marie and Others (1959), Research Methods in Social Research, Dryden New York.
8. Takur Dvendra (1997), Research Methodology in Social Sciences, Deep and Deep Publication, New Delhi.
9. Gupta S.P. and Gupta M.P. (2005), Business Statistics, Sultan Chand & Sons, New Delhi
10. Gupta C.B. (1996), An Introduction to Methods, Vikas Publication House, New Delhi.
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- 12- ikVhy t-Qk-] iBk.k ds-th-] rkEg.kdj ih-ts-] larks"k ;kno ¼2012½ % ^vFkZ'kkL=h; la'kks/kukph rkSaMvksG[k*] ¼lq/kkfjr vko`Rrh½] dkWfUVusaVy izdk'ku] iq.ks-
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B. A. III Economics (Semester VI) (CBCS Pattern)

Research Methodology in Economics- II

(Elective Course- 15)

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the sampling techniques as a method of data collection
- Use techniques of data analysis in research
- Write a research report and thesis
- Write a research proposal (grants)

Module- I: Sampling

(Teaching Hours- 15, Credits- 01)

- 1.1 Meaning and nature
- 1.2 Types of sampling
- 1.3 Criteria of good sampling
- 1.4 Optimum size of sampling

Module- II: Processing and representation of data

(Teaching Hours- 15, Credits- 01)

- 2.1 Classification of data
- 2.2 Tabulation of data
- 2.3 Percentage
- 2.4 Graphs and diagrams

Module- III: Techniques of data analysis**(Teaching Hours- 15, Credits- 01)**

- 3.1 Need and importance of data analysis
- 3.2 Measures of central tendency: mean, mode, median (direct method)
- 3.3 Measures of variation: range, standard deviation (direct method)
- 3.4 Correlation- meaning and importance, Karl Pearson's coefficient of correlation

Module- IV: Interpretation of data and report writing**(Teaching Hours- 15, Credits- 01)**

- 4.1 Interpretation of data: meaning
- 4.4 Report writing: meaning, steps, precautions
- 4.5 Properties of good report writing
- 4.4 Writing a good research proposal

BASIC READING LIST:

1. Goode and Hatt (1981), Methods in Social Research, McGraw Hill International Book Company, New Delhi.
2. Kerlinger F.N. (1983), Foundation of Behavioural Research, Surjeet Publication, Delhi.
3. Young P. V. (1960), Scientific Social Survey and Research, Asia Publication House, Mumbai.
4. Kothari C.R. (1993), Research Methodology-Methods and Techniques, Wiley Eastern Ltd., New Delhi.
5. Lundberg G.A. (1960), Social Research, Longmans Green and Company, New York.
6. Herekar P. M. (2019), Research Methodology and Project Work, Phadake Prakashan, Kolhapur.
7. Settiz Claire, J ahoda Marie and Others (1959), Research Methods in Social Research, Dryden New York.
8. Takur Dvendra (1997), Research Methodology in Social Sciences, Deep and Deep Publication, New Delhi.
9. Gupta S.P. and Gupta M.P. (2005), Business Statistics, Sultan Chand & Sons, New Delhi
10. Gupta C.B. (1996), An Introduction to Methods, Vikas Publication House, New Delhi.
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B. A. III Economics (Semester V) (CBCS Pattern)

History of Economic Thoughts- I

(Elective Course- 11)

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the basic economic ideas of various economic thinkers of the world
- Understand the development of economic thoughts

Module-I: Origin of Economic Thoughts (Teaching Hours- 15, Credits- 01)

- 1.1 Early economic thought, rise of mercantilism, features of Mercantilism
- 1.2 Meaning and causes of emergence of Physiocracy
- 1.3 The concept of natural order and primacy of agriculture
- 1.4 Tableau economique

Module- II: Classical Economic Thoughts (Teaching Hours- 15, Credits- 01)

- 2.1 Adam Smith: Division of labour, theory of value and canons of taxation
- 2.2 David Ricardo: Theory of Value and views on distribution
- 2.3 Thomas Malthus: Theory of Population
- 2.4 Theory of Gluts

Module- III: Economic Thoughts of Fredrick List (Teaching Hours- 15, Credits- 01)

- 3.1 Criticism on Classical School
- 3.2 Stages of Economic growth
- 3.3 Concept of Nationalism
- 3.4 Theory of Protectionism

Module- IV: Economic Thoughts of Karl Marx (Teaching Hours- 15, Credits- 01)

- 4.1 The Concept of Scientific Socialism and Materialist approach
- 4.2 The Theory of Value
- 4.3 Theory of Surplus Value
- 4.4 Concept of Falling rate of profit

BASIC READING LIST:

1. Dandekar V.M.and N.Nath (1971), Poverty in India, Indian school of political Economy, Pune.
2. Ganguli B. N. (1977): Indian Economic Thought - A 19th Century Perspectives, Tata Mc Grow Hill, New Delhi.
3. Rath Nilkanth(1995) V.M.Dandekar Social Scientist with a Difference : Journal of Indian School of Political Economy.Oct-Dec.1995, Vol-7 No-4.
4. Seshadri G.B.(1997): Economic Doctrines, Publishing Corporation, New Delhi.

5. चा.भ.खैरमोडे (१९७८) – डॉ.भीमराव रामजी आंबेडकर, खंड १ ला , खंड २ रा खंड ७ वा, प्रताप प्रकाशन.
6. गांधी मो.क.(१९९७) -मराठी अनुवाद सीताराम पुरोषोत्तम पटवर्धन'सत्याचे प्रयोग अथवा आत्मकथा पाचवी आवृत्ती.
7. डॉ.जे.एफ.पाटील (२०१५)– आर्थिक विचारांचा इतिहास, फडके प्रकाशन, कोल्हापूर.
8. इंगळे बी.डी. (२०११) आर्थिक विचारांचा इतिहास, अरुणा प्रकाशन, लातूर.
9. प्रा.रायखेलकर,डॉ.दामजी (२०११) – आर्थिक विचारांचा इतिहास, विद्या बुक पब्लिशर्स,औरंगाबाद.
10. प्रा.डॉ.अनिलकुमार वावरे, प्रा.संजय धोंडे, व डॉ.अनिल सत्रे (२०१४)– आर्थिक विचारांचा इतिहास, एज्युकेशनल पब्लिशर्स अँड डिस्ट्रिब्युटर्स,औरंगाबाद.
11. प्रा.रा.म.गोखले - आर्थिक विचारांचा इतिहास
12. डॉ.विजय कविमंडन - आर्थिक विचारांचा इतिहास

B. A. III Economics (Semester VI) (CBCS Pattern)

History of Economic Thoughts- II

(Elective Course- 16)

Course Outcomes: After successful completion of this course, the students will be able to:

- Understand the economic concepts and theories of Neo-Classical and Indian thinkers.
- Understand the development of economic thoughts

Module- I: Neo- Classical Economic Thought – Alfred Marshall

(Teaching Hours- 15, Credits- 01)

- 1.1 Theory of Value
- 1.2 The concept of representative firm
- 1.3 Consumer's surplus, elasticity of demand
- 1.4 Quasi rent

Module- II: Indian Economic Thought

(Teaching Hours- 15, Credits- 01)

- 2.1 Mahatma Phule: Views on agriculture and education
- 2.2 Rajarshi Shahu Maharaj: Policy for agriculture development and co-Operation
- 2.3 Dr. Babasaheb Ambedkar: Views on money, agriculture and development policy
- 2.4 Dadabhai Nauroji: Drain theory

Module- III: Mahatma Gandhi

(Teaching Hours- 15, Credits- 01)

- 3.1 Concept of village development
- 3.2 Importance of decentralization
- 3.3 Basic principle of development: swadeshi
- 3.4 Concept of Gram Swarajya

Module- IV: Economic Thoughts of Modern Indian Economist

(Teaching Hours- 15, Credits- 01)

- 4.1 Gopal Krishna Gokhale's views on public finance
- 4.2 D. R. Gadgil: Views on co-operative development and decentralization of power, co-operative commonwealth
- 4.3 V. M. Dandekar: Views on poverty
- 4.4 Amartya Sen: Concept of social choice, choice of techniques, Sen's views on poverty and public action

BASIC READING LIST:

1. Dandekar V.M.and N.Nath (1971), Poverty in India, Indian school of political Economy, Pune.
 2. Ganguli B. N. (1977): Indian Economic Thought - A 19th Century Perspectives, Tata Mc Grow Hill, New Delhi.
 3. Rath Nilkanth(1995) V.M.Dandekar Social Scientist with a Difference : Journal of Indian School of Political Economy.Oct-Dec.1995, Vol-7 No-4.
 4. Seshadri G.B.(1997): Economic Doctrines, Publishing Corporation, New Delhi.
 5. चा.भ.खैरमोडे (१९७८) – डॉ.भीमराव रामजी आंबेडकर, खंड १ ला , खंड २ रा खंड ७ वा, प्रताप प्रकाशन.
 6. गांधी मो.क.(१९९७) -मराठी अनुवाद सीताराम पुरोषोत्तम पटवर्धन'सत्याचे प्रयोग अथवा आत्मकथा पाचवी आवृत्ती.
 7. डॉ.जे.एफ.पाटील (२०१५)– आर्थिक विचारांचा इतिहास, फडके प्रकाशन, कोल्हापूर.
 8. इंगळे बी.डी. (२०११) आर्थिक विचारांचा इतिहास, अरुणा प्रकाशन, लातूर.
 9. प्रा.रायखेलकर,डॉ.दामजी (२०११) – आर्थिक विचारांचा इतिहास, विद्या बुक पब्लिशर्स,औरंगाबाद.
 10. प्रा.डॉ.अनिलकुमार वावरे, प्रा.संजय धोंडे, व डॉ.अनिल सत्रे (२०१४)– आर्थिक विचारांचा इतिहास, एज्युकेशनल पब्लिशर्स अँड डिस्ट्रिब्युटर्स,औरंगाबाद.
 11. प्रा.रा.म.गोखले - आर्थिक विचारांचा इतिहास
 12. डॉ.विजय कविमंडन - आर्थिक विचारांचा इतिहास
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Ref. No./SU/BOS/Humanities/ 332

Date :19/09/2022

To,

The Principal,
All Concerenced Affiliated Colleges/Institutions,
Shivaji University, Kolhapur

Subject : Regarding syllabi of B. A. Part I (sem. I & II) degree programme
under the Faculty of Humanities as per National Education Policy, 2020 (NEP)

Sir/Madam,

With reference to the subject mentioned above I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi, equivalence and nature of question paper of B. A. Part I (Sem. I & II) under the Faculty of Humanities as per National Education Policy, 2020. (NEP)

Compulosry Subject		Optional Subject		
English	Hindi	Marathi.	Hindi	English
Kannada	Urdu	Sanskrit (L)	Sanskrit (H)	Urdu
Sanskrit	Marathi	Ardhamagadhi	Linguistics	Kannada
Ardhamagadhi	Scientific Method	Sociology	Philosophy	Economics
S. T. D.		Political Science	Psychology	History
Additional English		N.C.C. (Military Science)	N. S. S.	Defence Study (Entire)
		Geography		

This syllabi shall be implemented from the academic year 2022-23 onwards . A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

The question paper on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October/November 2022 & March/ April, 2023. These chances are available for repeater students, if any.

For students of Distance Education this syllabi be implemented from the academic yerar 2022-23.

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully

Dy. Registrar

Encl : As above

Copy to,

For Information and necessary action.

Dean, Faculty of Humanities.	Computer Center/I. T. Cell.
Co-Ordinetar, B.O.S./Ad-hoc Board under faculty of Humanities.	Eligibility Section.
Director, Board of Examinations & Evaluation	P. G. Seminar Section.
Appointment Section A & B	Distance Education Section.
B. A. Exam. Section.	Affiliation Section (T. 1 & T 2)
P. G. Admission Section.	

Shivaji University, Kolhapur



Accredited By NAAC with 'A ++' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

B.A. Part - I (Semester I and II)

HISTORY

(Syllabus to be implemented from June, 2022 onwards.)

Choice Based Credit System
B.A. Part - I
History Course – 1
(June 2022 onwards)

Semester I, Paper I: Rise of the Maratha Power (1600-1707)

(Objectives: The period from 1600 to 1707 was an important epoch in the history of Marathas. Chhatrapati Shivaji Maharaj established the Maratha state. Later, Chhatrapati Sambhaji, Chhatrapati Rajaram and Maharani Tarabai led the Maratha struggle of independence against the Mughal rule. The primary aim of this course is to introduce students to the history of the rise of Maratha power with main emphasis on life and work of Chhatrapati Shivaji Maharaj. The course is also expected to apprise the students with the sacrifices made by Maratha leaders and people to protect freedom and sovereignty of the region)

Module 1- Chhatrapati Shivaji Maharaja's achievement till 1664

- a. Background of the Rise of Maratha Power
- b. Early activities upto 1659; Afzalkhan Episode and Siege of Panhala
- c. Shahistekhan Episode and Attack on Surat

Module 2-Chhatrapati Shivaji Maharaja's achievement till 1680

- a. Treaty of Purandar and Visit to Agra
- b. Coronation
- c. Expedition to Karnataka

Module 3- Maratha War of Independence (1681-1707)

- a. Chhatrapati Sambhaji Maharaj
- b. Chhatrapati Rajaram Maharaj
- c. Maharani Tarabai

Module 4-Importance of Sources for understanding Maratha history

- a. Sources (Sanskrit and Marathi): *Shivbharat*, *Adnyapatra*
- b. Persian sources: *Tarikh-i-Dilkusha*, *Muntakhab-ul-Lubab*
- c. Foreign records and accounts: English and Portuguese

List of References:

Khafi Khan Muhammad Hashim, Muntakhab-ul-lubab in *The History of India as Told by Its Own Historians*, Vol. 7, Elliot and Dowson (eds.), Second Edition, Calcutta, 1952.
English Records on Shivaji (1959-1682), Shiva Charatira Karyalaya, Poona, 1931.
Patwardhan R. P., and H.G. Rawlinson, *Source Book of Maratha History- to the Death of Shivaji*, Vol.1, Bombay, 1929
Gordon, Stewart, *The Marathas 1600-1818*, Cambridge University Press, 1993.
Kulkarni, A. R. *Medieval Maratha Country*, Diamond Publications, 2008.
Kulakarni, A. R., *The Marathas*, Diamond Publications, 2008.
Pagdi, Setumadhava Rao, *Shivaji*, National Book Trust, India, 1993.
Ranade, M. G. *Rise of the Maratha Power* (Classic Reprint), Publications Division Ministry of Information & Broadcasting (ebook), 2017
Sarkar, Jadunath, *Shivaji and His Times*, Orient Blackswan, 1992.

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सरदेसाई, गो. स., *मराठी रियासत, खंड १ ते ८*, पॉप्युलर प्रकाशन, मुंबई, १९८८ ते १९९२
कुलकर्णी, अ. रा., खरे ग. ह., *मराठ्यांचा इतिहास, खंड १ ते ३*, कॉन्टिनेंटल प्रकाशन, पुणे, १९८४, १९८५, १९९३
काळे द. वि., *छत्रपती शिवाजी महाराज*, पुणे विद्यापीठ, पुणे, १९५९
दिवेकर स. म., (संपा.) *कवींद्र परमानंदकृत श्री शिवभारत*, भारत इतिहास संशोधक मंडळ, पुणे, १९२७
आठवले सदाशिव, *शिवाजी व शिवयुग*, मेहता पब्लिशिंग हाउस, पुणे, १९९२
जोशी प्र. न., (संपा) *आज्ञापत्र*, व्हीनस प्रकाशन, पुण, १९९७
बेंद्रे वा. सी., श्री *छत्रपती शिवाजी महाराज यांचे चिकित्सक चरित्र*, साहित्य सहकार मुद्रणालय, कुलाबा, १९७२
कुलकर्णी अ. रा., (संपा) *आज्ञापत्र*, डायमंड पब्लिकेशन, पुणे, २००७
पवार जयसिंगराव , *शिवाजी व शिवकाळ*, फडके प्रकाशन, १९९३
पवार जयसिंगराव, *मराठेशाहीचा उदय आणि अस्त*, मंजुश्री प्रकाशन, कोल्हापूर, १९९३
पवार जयसिंगराव, *मराठेशाहीचा उदय*, फडके प्रकाशन, कोल्हापूर, २००५
पगडी सेतुमाधवराव, *मराठ्यांचे स्वातंत्र्ययुद्ध* (खाफीखानाचा साधनग्रंथ), पुणे, १९६२
पगडी, सेतूमाधवराव, *मोगल आणि मराठे* (तारीके दिलकुशा) , पहिली आवृत्ती, पुणे, १९६२
पगडी सेतूमाधवराव, *शिवचरित्र - एक अभ्यास*, शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१२
पगडी सेतु माधवराव, *छत्रपती शिवाजी*, नॅशनल बुक ट्रस्ट, इंडिया नवी दिल्ली, २००४

पवार जयसिंगराव (प्रमुख संपादक), *छत्रपती शिवाजीमहाराज स्मृतिग्रंथ*, महाराष्ट्र राज्य पाठ्यपुस्तक निर्मिती व अभ्यासक्रम संशोधन मंडळ, पुणे, २०११.

जयसिंगराव पवार, *छत्रपती संभाजी स्मारक ग्रंथ*, रिया पब्लिकेशन्स, कोल्हापूर, १९९०

पवार जयसिंगराव, *शिवपुत्र छत्रपती राजाराम*, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०१७

पवार जयसिंगराव, *शिवछत्रपती एक मागोवा*, सुमेरू प्रकाशन, डोंबिवली, २००५

खोबरेकर वि.गो., *मराठा अंमलाचे स्वरूप*, शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, १९८८

पित्रे का.ग., *मराठ्यांचा युद्धेतिहास १६०० - १८१८*, कॉन्टिनेंटल प्रकाशन, पुणे, २००४

कुलकर्णी अ. रा, *अशी होती शिवशाही*, राजहंस प्रकाशन, पुणे, २००७

पठाण इस्माईल हुसेनसाहेब, *छत्रपती शिवाजी महाराज*, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०२१

पठाण इस्माईल हुसेनसाहेब, *छत्रपती संभाजी महाराज*, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०१८

Semester II, Paper II: Polity, Society and Economy under the Marathas (1600-1707)

(Objectives: 1600 to 1707 was a period of rapid change in the history of Marathas. Chhatrapati Shivaji Maharaj established the Maratha state and initiated fundamental changes in the political, socio-economic and cultural life of the people. The course is designed to acquaint the students with the political, socio-economic and religious life of the people during the 1600-1707 period. It will educate the students about the policy and contribution of Chhatrapati Shivaji Maharaj)

Module 1- Polity

- Civil administration: administrative structure, Ashtapradhan
- Judicial administration: judicial structure, gotsabha, divya
- Military administration: forts and navy

Module 2- Economy

- Agriculture: types of land and crops, revenue settlement, irrigation
- Industry: local craftsmen and major Industries
- Trade: trade centers, trade routes, transport and communications

Module 3- Society and Religion

- Village communities: Vatandar, Mirasdar, Balutedar-Alutedar and Upare

b. Pandharpur movement

c. Pilgrimage Centers: Kolhapur, Shikhar Shinganapur, Tuljapur

Module 4-Chhatrapati Shivaji Maharaj: Policy and Contribution

a. Administration and Management

b. Trade and Agriculture

c. Religion

List of References:

Apte, Bhalchandra Krishna., *A History of the Maratha Navy and Merchantships*, State Board for Literature and Culture, 1973.

Gordon, Stewart, *The Marathas 1600-1818*, Cambridge University Press, 1993.

Gune, Vithal Trimbak, *The Judicial System of the Marathas: A Detailed Study of the Judicial Institutions in Maharashtra, from 1600-1818 A.D.* Deccan College Postgraduate and Research Institute, 1953.

Kulkarni A. R., *Maharashtra in the Age of Shivaji*, R.J. Deshmukh, 1969.

Kulkarni A. R., *Maharashtra: Society and Culture*, Books & Books, 2000.

Kulkarni A. R. *Medieval Maratha Country*, Diamond Publications, 2008.

Kulkarni A. R., *The Marathas*, Diamond Publications, 2008.

Mahajan, T. T., *Aspects Of Agrarian And Urban History Of The Marathas*, Commonwealth Publishers, 1991.

Mahajan, T. T., *Courts and Administration of Justice Under Chhatrapati Shivaji*, Commonwealth Publishers, 1992.

Pagdi, Setumadhava Rao, *Shivaji*, National Book Trust, New Delhi, 1993.

Ranade, M. G. *Rise of the Maratha Power* (Classic Reprint), Publications Division Ministry of Information & Broadcasting (ebook), 2017

Sarkar, Jadunath, *Shivaji and His Times*, Orient Blackswan, 1992.

Sen S.N. *Military System of the Marathas with a Brief Account of Their Maritime Activities*, Calcutta, 1928.

मराठी संदर्भग्रंथ

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सरदेसाई बी. एन., मराठ्यांचा सामाजिक, आर्थिक व सांस्कृतिक इतिहास, फडके प्रकाशन, कोल्हापूर, २००१

चिटणीस के. एन., मध्ययुगीन भारतीय संकल्पना व संस्था, पुणे, २००३

बेंद्रे वा. सी., श्री छत्रपती शिवाजी महाराज यांचे चिकित्सक चरित्र, साहित्य सहकार मुद्रणालय, कुलाबा, १९७२

कुलकर्णी श्री. र., शिवकालीन राजनीती आणि रणनीती, पॉप्युलर प्रकाशन, मुंबई, १९९४

मेहेंदळे ग. भा., व शिंगे संतोष, शिवछत्रपतींचे आरमार, परमित्र पब्लिकेशन, पुणे, २०११

पगडी सेतूमाधवराव, शिवचरित्र - एक अभ्यास, शिवाजी विद्यापीठ प्रकाशन, कोल्हापूर, २०१२

पगडी सेतु माधवराव, छत्रपती शिवाजी, नॅशनल बुक ट्रस्ट, नवी दिल्ली, २००४

पवार जयसिंगराव (प्रमुख संपादक), छत्रपती शिवाजीमहाराज स्मृतिग्रंथ, महाराष्ट्र राज्य पाठ्यपुस्तक निर्मिती व अभ्यासक्रम संशोधन मंडळ, पुणे, २०११

पवार जयसिंगराव, शिवाजी व शिवकाळ, फडके प्रकाशन, १९९३

पवार जयसिंगराव, छत्रपती संभाजी स्मारक ग्रंथ, रिया पब्लिकेशन्स, कोल्हापूर १९९०

पवार जयसिंगराव, शिवपुत्र छत्रपती राजाराम, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०१७

पवार जयसिंगराव, शिवछत्रपती एक मागोवा, सुमेरू प्रकाशन, डोंबिवली, २००५

लोहार एम. ए., मराठाकालीन समाजजीवन, शिवाजी विद्यापीठ प्रकाशन, २००७

लोहार एम. ए., मराठ्यांच्या इतिहासाचे पैलू, शिवाजी विद्यापीठ प्रकाशन, २०१२

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पित्रे का.ग., मराठ्यांचा युद्धेतिहास १६०० - १८१८, कॉन्टिनेंटल प्रकाशन, पुणे, २००४

कुलकर्णी अ. रा, अशी होती शिवशाही, राजहंस प्रकाशन, पुणे, २००७

कदम विकास, वारकरी संप्रदायाचा इतिहास आणि पंढरपुरातील सांप्रदायिक फड व मठांचे कार्य, अरुणा प्रकाशन, लातूर, २०१४

महाजन टी. टी., शिवछत्रपतींची न्यायनीती, सुभदा-सारस्वता प्रकाशन, १९९९

पठाण इस्माईल हुसेनसाहेब, छत्रपती शिवाजी महाराज, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०२१

पठाण इस्माईल हुसेनसाहेब, छत्रपती संभाजी महाराज, महाराष्ट्र इतिहास प्रबोधिनी, कोल्हापूर, २०१८

The following marking structure was unanimously decided by the committee for Paper I and Paper II (Semester I and II)

Q1. A) Multiple Choice Questions- 05- (05 marks)

B) Answer in one sentence -05 – (05 marks)

Q.2 A) Write short notes on any four (out of six) – (20 marks)

Q.3. Essay Question – (10 marks)

OR

Essay Question

Q. 4 Essay Question – (10 marks)

OR

Essay Question

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Syllabus

B.A.-II

SEMESTER - III

PAPER III- HISTORY OF MODERN MAHARASHTRA (1900 to 1960)

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 04

(introduced from June 2019)

The first sixty years of 20th century was a period of great upheaval in Maharashtra. The events and changes that took place during this period made a lasting impact on the polity, society and economy of the region. The identity of Maharashtra region was forged during this period. This course introduces the students to the key historical events and transformations which have played an important role in making of modern Maharashtra

After studying the course the student will be able to...

CO1. Understand the beginnings and growth of nationalist consciousness in Maharashtra

CO2. Explain the contribution of Maharashtra to the national movement

CO3. Give an account of various movements of the peasants, workers, women and backward classes

CO4. Know the background and events which led to the formation of separate state of Maharashtra.

MODULE-1 Rise and Growth of Nationalism

- a) Rise of Nationalism 15
- b) Contribution of Gopal Krishna Gokhale
- c) Contribution of Lokmanya Tilak

MODULE -2 Role of Maharashtra in the National Movement

- a) Revolutionary Movement 15
- b) Non-Cooperation Movement
- c) Civil Disobedience Movement with special reference to the uprising in Solapur
- d) Quit India Movement with special reference to Prati Sarkar Movement

MODULE -3 Social Movements

- a) Peasants and Workers 15
- b) Women's rights
- c) Emancipation of Backward Classes

MODULE -4 Samyukta Maharashtra Movement

- a) Background 15
- b) Contribution of the Samyukta Maharashtra Samiti
- c) Events leading to the formation of Maharashtra State

Readings:

- Sukhatankar B R, Nineteenth Century history of Maharashtra, Shubadha-Saraswati Prakashan, 1988
- Lederle Mathew, Philosophical Trends in Modern Maharashtra, Popular Prakashan, Bombay, 1976.
- Masselos J.C., Towards Nationalism, Group Affiliations and the Politics Associations Nineteenth Century Western India, Popular Prakashan, Bombay, 1974.
- Dhanagare, D. N. (1990), 'Shetkari Sanghatana: The Farmers' Movement in Maharashtra — Background and Ideology', Social Action, Vol. 40
- Doctor, A.H. Low caste protest movements in 19th and 20th century Maharashtra: A study of Jotirao Phule and B.R. Ambedkar, Indian Journal of Social Science. 4(2); 1991; 199-222
- पंडित नलिनी, महाराष्ट्रातील राष्ट्रवादाचा विकास, मॉडर्न बुक डेपो, मुंबई, १९७२
- परंपरा आणि परिवर्तन, प्रा.गं बा सरदार यांचे निवडक लेख, गोखले एजुकेशन सोसायटी, पुणे, १९८८
- फडणीस जगन, शेतकरी कामगार पक्षाचे राजकारण, अजब पुस्तकालय, कोल्हापूर, १९७८.
- पर्वते विष्णू, गांधी पर्व, महाराष्ट्र साहित्य आणि संस्कृती मंडळ, १९८५
- मनोहर कदम, नारायण मेघाजी लोखंडे: भारतीय कामगार चळवळीचे जनक, मुंबई, १९९५
- फडके य दि, विसाव्या शतकातील महाराष्ट्र, १ ते ८ खंड, श्रीविद्या प्रकाशन, १९८३ -
- प्रबोधनातील पाउल खुणा, प्रा.गं बा सरदार यांचे निवडक लेख, कॉन्टीनेंटल प्रकाशन, १९७८
- गडकरी माधव - संयुक्त महाराष्ट्र लढ्याचे महारथी, पुणे, १९८७
- देवगिरीकर त्र्यं र - १९२० ते १९६२ काळातील राजकीय आठवणी, चित्रशाळा प्रेस प्रकाशन, पुणे, १९६५
- देशमुख जी व्ही, संयुक्त महाराष्ट्राचे मारेकरी, अरविंद प्रकाशन मुंबई, प्रकाशन वर्ष नाही
- जाधव वि तू, (अनु) राज्याची कारणमीमांसा, डॉ बाबासाहेब आंबेडकर, १९५५
- शिवणीकर राघव, सातारच सिंह, अंधाटे एस एस, पुणे २०००.
- भोले भा ल., बेडकिहाळ किशोर (संपा) बदलता महाराष्ट्र, (साठोत्तरी परिवारातच मागोवा) डॉ बाबासाहेब आंबेडकर अकादमी, सातारा, २००३.
- बडेकर दि के, संयुक्त महाराष्ट्र, चित्रशाळा प्रेस प्रकाशन, पुणे, १९४७.
- जोशी एस एम, मी एस एम, संयुक्त महाराष्ट्र (पूर्वार्ध) कॉन्टीनेंटल प्रकाशन पुणे १९८४.

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Syllabus B.A.-II

SEMESTER - IV

PAPER- V: HISTORY OF MODERN MAHARASHTRA (1960-2000)

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 04

(introduced from June 2019)

After 1960 a new period of development began in the state of Maharashtra. The eminent leaders played a pioneering role in this period of rapid transformation. This was also a period of massive expansion of education as well as social transformation. This course introduces the students to significant leaders, events and transformations in history of Maharashtra

After completion of the course, the student will...

CO1. Acquaint himself with the contribution of eminent leaders of Maharashtra

CO2. Know about the economic transformation of Maharashtra

CO3. Understand the salient features of changes in society

CO4. Explain the growth of education

MODULE -1 Leaders:

- a) Congress : Y B Chavan, Vasantdada Patil 15
- b) Socialist: Nagnath Nayakawadi, S M Joshi, P K Atre
- c) Communist: Comrade S.A. Dange

MODULE -2 Major Issues and Events

- a) Agriculture Development with special reference to role of 15
Vasantryao Naik
- b) Industry –Sugar (Pravara Sugar Factory) and Milk (Aarey Dairy Mumbai)
- c) Natural Disasters (Earthquakes- Koyna 1967 and Latur 1993)

MODULE -3 Social Movements

- a) Muslim Satyashodhak Samaj 15
- b) Satyashodhak Communist Party
- c) Vidrohi Movement

MODULE -4 Educational Development

- a) Primary 15
- b) Secondary
- c) Higher and Technical Education

Readings:

- Baviskar B.S., The Politics of Development: Sugar Cooperatives in Rural Maharashtra, Oxford University Press, New Delhi, 1981
- Deshpande S.H., Economy of Maharashtra: Shri C. V. Joag Felicitation Volume Samaj Prabhodhan Sanstha, Poona, 1973
- Thakkar Usha & Kulkarni Mangesh, Politics in Maharashtra, Himalaya Publishing House, Mumbai, 1995
- Palshikar Suhas and Nitin Birmal (eds), Maharashtra Rajkaran, Pratima, Pune.
- Baviskar B.S. and Attwood Donald (eds.), Finding the Middle Path, Vistaar Publications, New Delhi, 1995
- Bhole and Bedkiyal, Badalta Maharashtra (Marathi), Dr. Babasaheb Ambekar Academy Satara, 2003, 1981
- Pradeep Chavan, The Sugar Industry in Maharashtra, EPW, Vol.53, No 8, Feb,2018.
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- Kulkarni B D. Role of Cooperative Factories, in Rural Development (An Interdisciplinary Study) Tilak Maharashtra Vidyapith Pune,1993.
- बेडकीहाळ किशोर, बदलता महाराष्ट्र, डॉ. बाबासाहेब आंबेडकर अकॅडमी, सातारा २०१३
- श्री.ग. मुणगेकर (संपादक), परिवर्तनाचे प्रवाह महाराष्ट्र १९३१ ते १९८१, सकाळ सुवर्णमोहोत्सव प्रकाशन, १९८१
- पाटील पी सी, कर्मविरोपनिषिद्ध, ग्रामीण जीवन अभ्यास केंद्र १९६४.
- ठोके मो नि, श्रमिकांचे कैवारी, अभिनंदन प्रकाशन, कोल्हापूर, १९८३,
- पाटील सुभाष, (संपा) क्रांतिसिंह नाना पाटील स्मरणिका, हनमंतवडीये, १९९६.
- माने किरण, कथा क्रांती सूर्याची, कॉम्रेड गोविंदराव पानसरे अमृत महोत्सव समिती कोल्हापूर, २०१४.
- यादव सुमित, क्रांतिसिंह नाना पाटील जीवन व कार्य, सातारा इतिहास संशोधन मंडळ, २०१५.
- पाटील रा.तु यशवंतराव चव्हाण: एक वादग्रस्त पण कर्तबगार, मुत्सदी, सन्मित्र प्रकाशन कोल्हापूर.
- पाटील रा.तू., महाराष्ट्राच्या इतिहासातील कांही ताजी पाने, वसंतराव आणि यशवंतराव, सन्मित्र प्रकाशन कोल्हापूर.
- अहिर ज य, क्रांतिवीर नागनाथ अण्णा नायकवडी वाळवा, २०१०
- कुलकर्णी हेरंब, दारिद्र्याची शोध यात्रा, समकालीन प्रकाशन पुणे.
- घोटाळे विवेक, अभय कांता, महाराष्ट्रातील दुष्काळ, युनिक अकादमी पुणे.
- देसाई दत्ता, महाराष्ट्राच्या विकासाची दिशा, हवी नवी मळवाट, परिवर्तन प्रकाशन
- गवेकर अरुण (डॉ) उच्च शिक्षण समस्या प्रवाह, उत्कर्ष प्रकाशन, पुणे, २०११.
- तावडे स्नेहल (डॉ) माध्यमिक व उच्चमाध्यमिक शिक्षण व्यवस्थापन, समस्या आणि उपाय, डायमंड प्रकाशन पुणे.
- शहा सुरेखा, महाराष्ट्राचे जलनायक, सुमेरू प्रकाशन
- मोरवंचीकर रा.श्री. भारतीय जलसंस्कृती स्वरूप व व्याप्ती, सुमेरू प्रकाशन
- कणिकर राजश्री, जलसंपदा, परममित्र प्रकाशन
- पाटील दिनेश, असंतोषाचा अब्राम्हाणी क्रांतिसूर्य कॉम्रेड शरद पाटील, पार्थ पब्लिकेशन कोल्हापूर, २०१९.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus

B.A.-II

SEMESTER - III

PAPER IV: HISTORY OF INDIA (1757-1857)

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 4

(introduced from June 2019)

This course will acquaint the students with the history of India under British rule. It will help the students to understand how the East India Company established and consolidated its rule in India. They will know about the impact of colonial rule on the Indian Economy. It will also familiarize the students with the revolts against the company rule.

After studying this course, the student will...

CO1. Acquaint himself with significant events leading to establishment of the rule of East India Company

CO2. Know the colonial policy adopted by the company to consolidate its rule in India

CO3. Understand the structural changes initiated by colonial rule in Indian economy.

CO4. Explain the various revolts against rule of the East India Company.

Module- 1 Establishment of Company rule in India 15

- a) Causes for establishment of Company rule
- b) Struggle with Native Powers (Bengal and Mysore)
- c) Struggle with Marathas

Module -2 Making of a Colonial Policy 15

- a) Dual Government - Robert Clive
- b) Subsidiary Alliance - Lord Wellesley,
- c) Doctrine of Lapse - Lord Dalhousie,

Module -3 Making of a Colonial Economy 15

- a) Land revenue settlements- (*Permanent Settlement, Ryotwari, Mahalwari*)
- b) De-industrialization
- c) Drain of Wealth

Module -4 Revolts against Company Rule 15

- a) Tribal Revolts
- b) Revolt of 1857
- c) Queen's Proclamation of 1858 and its effects

Readings:

- Bandyopadhyay, S. From Plassey to Partition. Delhi: Orient Longman, 2004.
- Bose, S and Ayesha Jalal. Modern South Asia: History, Culture, Political Economy. New Delhi: OUP, 1998
- Chandra, B. Nationalism and Colonialism in Modern India. Delhi: Orient Longman, 1996.
- Habib, I. Indian Economy 1757-1857: A People's History of India Series. Vol. 25. Delhi, Tulika Books, 2013
- Habib, I. Indian Economy 1858-1914: A People's History of India. Vol. 28. New Delhi: Tulika Books, 2006
- Grover B. L. and Mehta Alka- A New Look at Modern Indian History –
- Majumdar, Ray Choudhary, Datta- An Advanced History of India –
- Prasad, Ishwari and Subedar. - A History of Modern India
- Chhabra, G.S.-An Advanced Study in the History of Modern India, Vol. I, II, III
- Tara Chand - History of Freedom Movement in India – Four Volumes
- Chakravarty, Subhash, The Raj Syndrome: A study in Imperial Perceptions, 1989
- Cohn, B., Colonialism and its Forms of Knowledge, Princeton, New Jersey, Princeton University Press, 2001
- Stokes, Eric, The Peasant Armed: The Indian Rebellion of 1857, (ed.) Bayly, C.A, New Delhi, Oxford University Press, 1986
- Mukherji, Ramakrishna: The Rise and Fall of the East India Company
- S.C. Sarkar: The Bengal Renaissance (हिंदी- बंगाल का नवजागरण)
- R.C. Mazumdar, H.C. Raychaudhuri and Kalikinkar, Datta: An Advanced History of India (हिंदी- भारत का बृहद इतिहास)
- ग्रीवर, बी. एल., व बेल्लेकर एन.के.- आधुनिक भारताचा इतिहास - एक नवीन मुल्यांकन, एस.चंद पब्लिकेशन नई दिल्ली.
- वैध, सुमन व कोठेकर शांता – आधुनिक भारताचा इतिहास (१७५७-१८५७), (१८५७-१९२०), (१९२०-१९४७)
- बंद्योपाध्याय, शेखर- प्लासी से विभाजन तक, आधुनिक भारत का इतिहास (हिंदी)
- कुलकर्णी, अ. रा.- कंपनी सरकार (ईस्ट इंडिया कंपनी), राजहंस प्रकाशन प्रा. लिमिटेड, पुणे.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus

B.A.-II

SEMESTER – IV

PAPER VI: History of Freedom Struggle (1858-1947)

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 04

(introduced from June 2019)

The course is designed to study the freedom struggle in India from 1858 to 1947. It will familiarize the students with events leading to emergence of national consciousness in India. They will be acquainted with the prolonged struggle launched by the Indian National Congress under the leadership of Mahatma Gandhi. They will also know about the struggle of the revolutionaries, leftists and the Indian National Army. The course will introduce students to the concept of Communalism and the process which led to the partition of India.

After completion of this course, the student will be able to...

CO1. Understand the events which lead to the growth of nationalism in India

CO2. Acquaint himself with major events of the freedom struggle under the leadership of Mahatma Gandhi

CO3. Explain the contribution of Revolutionaries, Left Movement and Indian National Army

CO4. Know the concept of Communalism and the causes and effects of the partition of India

Module- 1	Rise of Nationalism	15
	a) Formation of Indian National Congress b) Contribution of Moderates c) Contribution of Extremists (Swadeshi Movement and Home Rule Movement)	
Module -2	Gandhian Era	15
	a) Non-Cooperation Movement b) Civil Disobedience Movement c) Quit India Movement	
Module -3	Other Strands	15
	a) Revolutionary Movement b) Leftist Movement c) Subhash Chandra Bose and Indian National Army	
Module -4	Communalism and Partition	15
	a) Concept of Communalism b) Causes for Partition c) Effects of Partition	

Readings

- Bandyopadhyay, S. From Plassey to Partition. Delhi: Orient Longman, 2004.
- Chandra Bipan, Rise and Growth of Economic Nationalism in India, Delhi, 1966
- Chandra, B. Nationalism and Colonialism in Modern India. Delhi: Orient Longman, 1996.
- Mujumdar R. C. - British Paramountcy & Indian Renaissance, Part I & II, Bhartiya Vidhya Bhavan (3rd Ed.) 1991.
- Bhattacharjee, Arun, History of Modern India (1707 – 1947), Ashish Publishing House, New Delhi 1976
- Dutt, R.P. India Today. Calcutta: Manisha, 1986
- Sarkar, S. Modern India 1885-1947. Delhi: Macmillan, 1983.
- Tara Chand, History of Freedom Movement in India, Vol. 1 to 4, Publication Division, Government of India, New Delhi, 1961-1972
- Chousalkar, Ashok, Indian Idea of Political Resistance, Ajanta Publication, Delhi 1990
- B.R. Nanda (ed), Gokhale: The Indian Moderates and the British Raj, Princeton University Press, New Jersey, 1977
- Daniel Argov, Moderates and Extremists in the Indian National Movement, 1833-1920, 1967.
- ताराचंद – भारतीय स्वतंत्रता आंदोलन का इतिहास खंड-१,२,३,४,(हिंदी)
- चंद्र, बिपीन, एवं अन्य - भारत का स्वतंत्रता संघर्ष , हिंदी माध्यम कार्यान्वय निदेशालय, नई दिल्ली. (हिंदी)
- चंद्र, व इतर – (अनु. मा. कृ. पारधी)- स्वातंत्र्याचा लढा, नॅशनल बुक ट्रस्ट इंडिया, नवी दिल्ली .
- ग्रोव्हर, बी. एल., व बेल्हेकर एन.के.-आधुनिक भारताचा इतिहास - एक नवीन मुल्यांकन
- जावडेकर, श.द., आधुनिक भारत, पुणे, १९७९(reprint)
- केळकर, श्रीपाद , असहकाराचे आंदोलन
- लिमये, मधु. - स्वातंत्र्य चळवळीची विचारधारा, समाजवादी मित्र बिरादरी, पुणे.
- सरकार, सुमित – आधुनिक भारत का इतिहास , राजकमल प्रकाशन, नई दिल्ली. (हिंदी)
- वाळिंबे, व्ही.एस.- सत्तावन ते सत्तेचाळीस, स्वातंत्र्य लढ्याची संस्मरणीय कहाणी, राजहंस पब्लिकेशन पुणे.
- ग्रोव्हर, बी. एल., व बेल्हेकर एन.के.- आधुनिक भारताचा इतिहास - एक नवीन मुल्यांकन, एस.चंद पब्लिकेशन नई दिल्ली.
- वैध, सुमन व कोठेकर शांता – आधुनिक भारताचा इतिहास (१७५७-१८५७), (१८५७-१९२०),(१९२०-१९४७)
- बंद्योपाध्याय, शेखर- प्लासी से विभाजन तक, आधुनिक भारत का इतिहास (हिंदी)

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus

B.A.-II

SEMESTER - III

IDS PAPER I: SOCIAL REFORMS IN INDIA

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 04

(introduced from June 2019)

This course is conceived to introduce the students to the social and religious change in India expressed in various social reform movements. Students will explore the significance and impact of prominent social and reform movements. It will help the students to understand how the ideals of rationalism, humanism and universalism were encouraged by the Indian social reformers. The course will attract students from a wide variety of social science disciplines.

After completion of the course, the student will be able to ...

CO1. Understand the salient features of prominent socio-religious reform movements

CO2. Explain the thought and work of Mahatma Phule for radical transformation of Indian society

CO3. Know the measures taken by Rajashri Shah Maharaj for emancipation of lower classes and women

CO4. Understand the thoughts of Ambedkar on the annihilation of the caste system and untouchability in India

CO5. Know how the Indian constitution embodies the values of social justice and equality

MODULE-1 Socio-Religious Reform Movements

- a) Raja Ram Mohan Roy and Brahmo Samaj 15
- b) Swami Dayanand Saraswati and Arya Samaj
- c) Swami Vivekanand and Ramakrishna Mission

MODULE-2 Mahatma Phule

- a) Educational and Social Work 15
- b) Satyashodhak Samaj
- c) Thoughts of Mahatma Phule (with special reference to *Shetkaryancha Asud* and *Gulamgiri*)

MODULE-3 Rajashri Shahu Maharaj

- a) Educational and Social upliftment of lower classes 15
- b) Women's Rights
- c) Hostel Movement

MODULE-4 Dr Babasaheb Ambedkar

- a) Thoughts on Annihilation of Caste 15
- b) Mahad Incident and the Temple entry movement
- c) Social Justice and Indian Constitution

Readings:

- Kenneth W. Jones, Socio-religious reform movements in British India, Cambridge University Press, 1994
- David Kopf, The Brahmo Samaj and the Shaping of the Modern Indian Mind, Princeton, 1979
- Amiya P. Sen , Social and Religious Reform, Oxford University Press, 2005
- J.T.F. Jordens, Dayananda Saraswati, Oxford University Press, Delhi, 1997
- Kopf, The Bramho Samaj and Shaping of the Modern India, Princeton University press, 1979.
- Rosalind O Hanlon, Caste Conflict and Ideology: Mahatma Jotirao Phule and low caste protest in nineteenth century western India, South Asia Publication CUP, 1985
- Salunkhe, P.B. and Mali M.G; “Chhatrapati Shahu the Pillar of Social Democracy” ; Education Department Government of Maharashtra, Gargoti, Kolhapur, 1994.
- Sarkar Sumit: “Bibliographical Survey of Social Reform Movements in the Eighteenth and Nineteenth centuries”, Indian Council of Historical Research, New Delhi,1975.
- Vaidya, G.N, “Shahu Chhatrapati- Ruler and a Revolutionary”, Shivaji University,
- Suraj Yengade, Anil Teltumbde, (ed.), The Radical in Ambedkar, Penguin Random House India, 2018
- Babasaheb Ambedkar, Annihilation Of Caste, Dr. Babasaheb Ambedkar Writings and Speeches, Vol. 1, Education Department, Government of Maharashtra, 2016
- Chavan Sheshrao, The Constitution of India: Role of Dr. B.R. Ambedkar— Legend and Reality, Atlantic ,2014.
- कीर धनंजय, डॉ बाबास्हेब आंबेडकर, पॉपुलर प्रकाशन, १९६६.
- वाघमारे जनार्दन (डॉ) स्वामी दयानंद सरस्वती, कीर्ती प्रकाशन, औरंगाबाद, २०१०
- घोष गौतम, आधुनिक भारताचे प्रेषित स्वामी दयानंद, (अनु) मोर्डेकर माधव, मेहता पब्लिशिंग हौस, पुणे
- वैद्य प्रभाकर, महात्मा फुले आणि त्यांची परंपरा, प्रेरणा- शिकवण-विपर्यास, लोकवाड्मय, मुंबई
- फडके य दि, (संपा) महात्मा फुले समग्र वाडमय, महाराष्ट्र साहित्य संकृती मंडळ मुंबई, १९९१
- नरके हरी, (डॉ) संशोधनाच्या नव्या वाटा, महाराष्ट्र साहित्य संकृती मंडळ मुंबई, १९९८
- कीर धनंजय, महात्मा फुले, पॉपुलर प्रकाशन, १९७३.
- पवार जयसिंगराव, राजर्षी शाहू छत्रपती- एक मागोवा, मेहता पब्लिशिंग हाऊस, कोल्हापूर, २०१८
- पवार जयसिंगराव, राजर्षी शाहू – एक दृष्टीक्षेप, कोल्हापूर, १९८९
- पी.बी. साळुंखे (संप) , राजर्षी शाहू गौरव ग्रंथ, मुंबई, १९७६
- बाबर अशोक (डॉ) आंबेडकरवाद, कोटी अंड बाबर पब्लिकेशन, सोलापूर, २०१६.
- बाबासाहेब आंबेडकर, जातिव्यवस्थेचे निर्मुलन (मराठी अनुवाद- प्रा. प्रकाश सिरसाट, उच्च व तंत्रशिक्षण विभाग, महाराष्ट्र शासन, २०१५

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus B.A.-II

SEMESTER - IV

IDS PAPER- II: SOCIAL REFORMS IN MAHARASHTRA

(CHOICE BASED CREDIT SYSTEM – (CBCS)

Credits: 04

(introduced from June 2019

Fundamental changes took place in the society of Maharashtra during the 19th and 19th centuries. The beginnings of Western education, press and industrialization made a lasting impact on the thinking of people. Eventually some reform-oriented people started movements to reform the society. This course introduces the students to the salient features of social reforms in Maharashtra.

After studying the course, the student will be able to...

CO1. Know about the beginnings of social reforms in Maharashtra by the Paramhansa Mandali and Prarthana Samaj.

CO2. Understand the contribution of women reformers

CO3. Explain the contribution of Social reformers in the fight for social justice

CO4. Explain the role played by educational reforms in transformation of society.

MODULE-1 Beginnings of Social Reform

- a) Social condition in early 19th century 15
- b) Paramhansa Mandali
- c) Prarthana Samaj

MODULE -2 Women Reformers

- a) Savitribai Phule 15
- b) Tarabai Shinde
- c) Pandita Ramabai

MODULE -3 Social Reformers

- a) Lahuji Salve 15
- b) Maharshi Vitthal Ramji Shinde
- c) Gadage Maharaj
- d) Annabhu Sathe

MODULE -4 Educational Reforms

- a) Karmaveer Bhaurao Patil 15
- b) Dr. Bapuji Salunkhe
- c) Punjabrao Deshmukh

Readings:

- Kenneth W. Jones, Socio-religious reform movements in British India, Cambridge University Press, 1994
- Amiya P. Sen, Social and Religious Reform, Oxford University Press, 2005
- Articles on Paramhansa Sabha, Prarthana Samaj, Satyashodhak Samaj in Murali Ranganathan (ed.), The Collected Works of JV Naik, Asiatic Society of Mumbai, 2016

- Ravindra Kumar, Western India in the Nineteenth Century: A study in the social history of Maharashtra: Volume 27 (Studies in Social History) Routledge & Kegan Paul, 1968
- Feldhaus Anne (Edit) Images of Women in Maharashtrian Society, State University of New York Press, 1998
- The Pandita Ramabai Story: In Her Own Words, Mukati Mission Clinton, 2018
- Ganachari A. G., Nationalism and Social Reform in a Colonial Situation, Kalpaze, Publication, New Delhi, 2005.
- Ghugare Shivprabha, Renaissance in Western India: Karmveer V.R. Shinde Himalaya Publishing House, Bombay, 1983.
- उमेश बागाडे, महाराष्ट्रातील प्रबोधन आणि वर्गजातिप्रभुत्व, सुगावा प्रकाशन, पुणे, २००६
- मा. प. मंगुडकर, महात्मा फुले आणि सत्यशोधक चळवळ, दादर, प्रकाशन तारीख नाही
- पवार बा. ग, महर्षी विठ्ठल रामजी शिंदे, मातृभूमी प्रकाशन पुणे
- माळी मा. गो, सावित्रीबाई फुले समग्र वाडमय
- पवार ब. ग. सावित्रीबाई फुले चरित्र, मातृभूमी प्रकाशन, पुणे
- खोले विलास, (संपा) स्त्री पुरुष तुलना, ताराबाई शिंदे, संशोधित आवृत्ती, प्रतिमा प्रकाशन, १९९७
- पवार एम. जी, महर्षी विठ्ठल रामजी शिंदे समग्र वाडमय, अक्षरधारा प्रकाशन कोल्हापूर,
- भगत रा. तू, समतासूर्य गाडगेबाबा, चैतन्य प्रकाशन कोल्हापूर.
- भगत रा. तू, चैतन्य प्रकाशन कोल्हापूर असे होते गाडगेबाबा.
- घोडे अनंत कोल्हापूर सशत्रु क्रांतीचे जनक लहूजी वस्ताद
- कदम सोमनाथ डी, मातंग समाजाचा इतिहास, अरुणा प्रकाशन, लातूर.
- साहित्यरत्न लोकशाहीर अण्णाभाऊ साठे, निवडक वाडमय, खंड क्र १ व २ लोकशाहीर अण्णाभाऊ साठे चरित्र साधने प्रकाशन समिती, महाराष्ट्र शासन, मुंबई
- गुरव बाबुराव (डॉ) अण्णाभाऊ साठे समाज विचार आणि साहित्य विवेचन,, लोकवाडमय प्रकाशन मुंबई
- सुर्वे गजानन, शिक्षण महर्षी बापुजी साळुंखे चरित्र ग्रंथ, शिक्षण महर्षी बापुजी साळुंखे सत्कार समिती, कराड १९८१
- मोहिते कल्पना, डॉ पंजाबराव देशमुख यांचे जीवन व कार्य, मुक्ता पब्लिशिंग हाउस कोल्हापूर, २०१२.

Equivalence of Old papers

Sr. No	Semester No	Title of Old Paper	Title of New Paper
1	III	History of Social Reforms in India	IDS PAPER I: SOCIAL REFORMS IN INDIA
2	IV	History of Social Reforms in Maharashtra	IDS PAPER- II: SOCIAL REFORMS IN MAHARASHTRA
3.	III	Paper III:World Revolution-I	PAPER III- HISTORY OF MODERN MAHARASHTRA (1900 to 1960)
4.	IV	Paper-V World Revolution-II	PAPER- V: HISTORY OF MODERN MAHARASHTRA (1960-2000)
5.	III	Paper IV:Freedom Struggle of India-	PAPER IV: HISTORY OF INDIA (1757-1857)
6.	IV	Paper VI - Freedom Struggle of India-II	PAPER VI: HISTORY OF FREEDOM STRUGGLE (1858-1947)

Structure of Question Paper

Faculty of Humanities

Common Nature of Question Paper (Except Languages)

Choice Based Credit System

B.A.-Part II (Semester III and IV) Examination

Day and Date:

Total Marks: 50

Time:

Instruction: 1) All Questions are compulsory

2) Figures to the right indicate full marks

1. Select the correct alternative from the following (10)

1).....

a) b) c) d)

2).....

a) b) c) d)

3).....

a) b) c) d)

4).....

a) b) c) d)

5).....

a) b) c) d)

6).....

a) b) c) d)

7).....

a) b) c) d)

8).....

a) b) c) d)

9).....

a) b) c) d)

10).....

a) b) c) d)

2. Write short notes on any FOUR out of six (20)

3. (A) Essay Question: (10)

OR

(B) Essay Question:

4. (A) Essay Question: (10)

OR

(B) Essay Question:

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Revised Syllabus for
Bachelor of Arts (Part- III)

SEMESTER V & VI
HISTORY

(Syllabus to be implemented from June 2020 onwards)

EQUIVALANCE OF B.A. III HISTORY SEMESTER- V

Semester	Paper No	Title of Old Paper (June 2015)	Semester	Course No	Title of New Course (June 2020)
V	Paper No. VII	History of Ancient India (From Prehistory to 3rd c. BC)	V	Course No. VII	Early India (from beginning to 4th c. BC)
V	Paper No. VIII	Political History of Medieval India (1206 to 1707 A.D.)	V	Course No. VIII	History of Medieval India (1206-1526 AD)
V	Paper No. IX	India Since Independence –I	V	Course No. IX	Age of Revolutions
V	Paper No. X	History of the Marathas (1707-1818)	V	Course No. X	Political History of the Marathas
V	Paper No. XI	Introduction to Historiography	V	Course No. XI	History: Its Theory

EQUIVALANCE OF B.A. III HISTORY SEMESTER VI

Semester	Course No	Title of Old Paper	Semester	Course No	Title of New Course
VI	Paper No. XII	History of Ancient India (From 3 c. BC to 7th c. AD)	VI	Course No. XII	Ancient India (From 4th c. BC to 7th c. AD)
VI	Paper No. XIII	Socio-Economic and Cultural History of Medieval India (1206 to 1707 A.D.)	VI	Course No. XIII	History of Medieval India (1526-1707 AD)
VI	Paper No. XIV	India Since independence- II	VI	Course No. XIV	Making of the Modern World (16th to 19th Century)
VI	Paper No. XV	Modern Maharashtra (1960 to 2000)	VI	Course No. XV	Polity, Economy and Society under the Marathas
VI	Paper No. XVI	Applications of History	VI	Course No. XVI	Methods and Applications of History

STRUCTURE OF PROGRAMME
REVISED SYLLABUS B.A. PART III (HISTORY)

Sr.No	Semester	Title of Course	Course No.	Credit	Workload	Total Credits	Theory Marks	Term Work/ Seminar
1	V	Early India (from beginning to 4th c. BC)	Course No. VII	04	4 lectures/ Week	20 Credits	40	10
2	V	History of Medieval India (1206-1526 AD)	Course No. VIII	04	4 lectures/ Week		40	10
3	V	Age of Revolutions	Course No. IX	04	4 lectures/ Week		40	10
4	V	Political History of the Marathas	Course No. X	04	4 lectures/ Week		40	10
5	V	History: Its Theory	Course No. XI	04	4 lectures/ Week		40	10
Sr.No	Semester	Title of Course	Course No.	Credit	Workload	Total Credits	Theory Marks	Term Work/ Group Project
6	VI	Ancient India (From 4th c. BC to 7th c. AD)	Course No. XII	04	4 lectures/ Week	20 Credits	40	10
7	VI	History of Medieval India (1526-1707 AD)	Course No. XIII	04	4 lectures/ Week		40	10
8	VI	Making of the Modern World (16th to 19th Century)	Course No. XIV	04	4 lectures/ Week		40	10
9	VI	Polity, Economy and Society under the Marathas	Course No. XV	04	4 lectures/ Week		40	10
10	VI	Methods and Applications of History	Course No. XVI	04	4 lectures/ Week		40	10

B.A. Part -III, (History)
Semester –V, Course VII DSE E-61

Paper VII : Early India (from beginning to 4th c. BC)

Course Objectives: This course explores the major historical developments in India from the beginning to the 4th Century B.C. It traces the history of the Indian subcontinent from the Paleolithic period to the establishment of the Mauryan state. The student will be introduced to the political, social, economic and religious developments in India during this formative period. This course will help the students to understand how India came to be. They will know the facts about the early period of Indian history up to the 4th century B.C. They will get an introduction to the beginnings of India's political, socio-economic and cultural dynamics and understand the legacy of Ancient India.

Course Outcomes:

After studying the course the student will be able to ...

- 1) Understand the transition of humans in India from Hunters to Farmers
- 2) Explain the transition from Early to Later Vedic period.
- 3) Clarify the causes for the first and second urbanizations
- 4) Give an account of the teachings of Gautama Buddha and Vardhamana Mahavira
- 5) Describe the rise and growth of the Mauryan Empire
- 6) Explain the salient features of Ashoka's Dhamma

Module I: The Beginning

- a) The Hunter-Gatherers: Paleolithic and Mesolithic
- b) The Early Farmers: Neolithic and Chalcolithic
- c) The First Urbanization: Harappan Civilization
- d) The Megalithic Nomads: Burial types, nature of remains

Module II: The Vedic Age and Epics

- a) Vedic literature
- b) Transition from Early to Later Vedic period: Polity and Economy
- c) Transition from Early to Later Vedic period: Society and Religion
- d) The Epics: Ramayana and Mahabharata

Module III: The Second Urbanization

- a) Nature of second urbanization
- b) Emergence of Regional States (16 Maha-janapadas)
- c) Gautama Buddha- His teachings
- d) Vardhamana Mahavira- His teachings

Module IV: The Mauryan Empire

- a) Sources: Arthashastra and Indica
- b) Chandragupta Maurya and Ashoka
- c) Mauryan administration
- d) Ashoka's Dhamma

Select Reference Books:

- Allchin, B. G.; Allchin, B.; Allchin, R.; Yoffee, N.; Alcock, S.; Dillehay, T. et al. (1982): The Rise of Civilization in India and Pakistan: Cambridge University Press (Cambridge World Archaeology).
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- ढवळीकर, मधुकर केशव., आर्यांच्या शोधात, राजहंस प्रकाशन; पुणे, २०१२
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B.A. Part III
Semester V, Course No: VIII DSE E-62
History of Medieval India (1206-1526 AD)

Course Objectives: This course covers the important period of Medieval Indian History. It was during this period that the Sultans established their rule in India. They introduced fundamental changes in polity, society, religion and culture of India. The course will acquaint the with various sources of medieval Indian history. They will get knowledge about the activities of major rulers and the policies followed by them. The students will know about the agricultural condition, development of trade and industry as well as the social, religious and architectural milieu of the period.

Course Outcomes:

After studying the course the student will be able to...

- 1) Describe the different types of historical sources available for writing the history of medieval India
- 2) Explain the contributions of medieval rulers like Allaudin Khilji, Muhammad-bin-Tughlaq, Krishnadevraya, and Mahmud Gavan
- 3) Give an account of the administration and economy of the Delhi sultanate and Vijayanagar Empire
- 4) Elucidate the significant developments which took place in religion, society and culture

Module I - Sources:

- a) Literary: Tarikh-i- Firozshahi, Amuktamalyada
- b) Archaeological (excluding Monuments)
- c) Account of Foreign Travelers: Ibn Battuta, Domingo Paes

Module II - Major Rulers

- a)Allaudin Khilji: Internal policy and reforms
- b) Muhammad - bin- Tughlaq : Experiment of Token Currency
- c) Krishnadevraya: Military success and cultural contribution
- d) Mahmud Gavan: Contribution to Bahmani Kingdom

Module III - Administration and Economy(Delhi Sultanate and Vijaynagar)

- a) Administration : Central and Provincial
- b) Agriculture and Land Revenue
- c) Industry and Trade

Module IV) Religion, Society and Culture:

- a) Sufi Order: Chishti Silsila; Bhakti Movement: Sant Kabir; Sikh Religion: Guru Nanak
- b) Society: Hindu and Muslim
- c)Architecture: Delhi Sultanate, Vijaynagar and Bahamani.

Select Reference Books:

- Rizvi, S.A.A., The Wonder that was India, Part II, Rupa, Delhi,2002
- Chitnis, K.N., Glimpses of Medieval Indian Ideas and Institutions, 1974

- Chitnis K. N. Socio- Economic Aspects of Medieval India, Poona, 1979
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- Raychaudhuri Tapan and Irfan Habib (eds.), Cambridge Economic History of India, Vol. I. C. 1200 C. 1750., Delhi, S. Chand, 1984.
- Satish Chandra, History of Medieval India (800- 1700), Orient Longman, Hyderabad, 2007
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- Salma Ahmed Farooqui, A Comprehensive History of Medieval India, Pearson, 2011.
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- श. गो. कोलरकर: मध्ययुगीन भारताचा इतिहास (१२०६ ते १७०७) , श्री मंगेश प्रकाशन , १९९४
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- जदूनाथ सरकार, औरंगजेब, डायमंड प्रकाशन, पुणे, २००६

B.A. Part III
Semester V, Course No: IX DSE E-63
Age of Revolutions

Course Objectives: This course introduces the students to the pathbreaking events of global history. The students will study the accounts of the causes and consequences of the transformative revolutions which changed the history of mankind. They brought about sudden big changes not only in the country in which they happened but also the world in general. Most of them left a lasting effect on the thought and the socio-political and cultural conditions of mankind. The course has been framed to make the students aware of the change and impact of these revolutionary events.

Course Outcomes:

After studying the course the student will be able to...

- 1) Explain the causes and consequences of the Reformation
- 2) Give an account of the role played by Martin Luther
- 3) Explain the salient features of the Industrial revolution
- 4) Give an account of the American revolution
- 5) Explain the causes, effects and major events of French Revolution
- 6) Explain the role of major leaders of the French Revolution

Module I: Reformation (16th Century)

- a) Causes
- b) Role of Martin Luther
- c) Consequences

Module II: Industrial Revolution (18th Century)

- a) Causes
- b) Major Developments
- c) Effects

Module III: American Revolution (1776)

- a) Causes
- b) Important events
- c) Impact

Module IV: French Revolution (1789)

- a) Causes
- b) Important events and major leaders
- c) Impact on the world

Select Reference books:

- Arun Bhattacharjee, World Revolutions, Ashish Publishing House, New Delhi, 1988
- L. Mukherjee, A Study of Modern Europe and the World, Calcutta, 2011
- John Merriman, A History of Modern Europe; From the Renaissance to the Present, W.W. Norton and Company, 2009
- Heather M. Campbell, The Emergence of Modern Europe, c.1500 to 1788, The Rosen Publishing Group, Inc, 2011
- प्रा. ना. गो. भवरे, डॉ. मु. बा. देवपुजारी, अमेरिकाचा इतिहास, पायल प्रकाशन, नागपूर १९७३
- सु. ग. देशपांडे, अमेरिकेचा इतिहास, व्हीनस प्रकाशन पुणे, १९७१
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- सत्यकेतू विद्यालंकार, युरोप का आधुनिक इतिहास (१७८९-१९७४), २०१३
- कुलकर्णी अ. रा. आणि फडके श्री. रा., आधुनिक युरोप, देशमुख आणि कंपनी, १९६७
- देसाई दत्ता, आधुनिकतेचे आगमन: युरोपकेंद्री इतिहासाचा जागतिक विचार, द युनिक अकॅडमी; पुणे, २०१५
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- देव बळवंत अनंत, मार्टिन ल्युथर युरोपातील धर्मक्रांतीचा इतिहास, गंगाबाई देव, १९१५
- मॉरिसन रिचर्ड बी (भाषांतर परांजपे वा. कृ.), अमेरिकन क्रांति, सौ. सुलोचना लिमये, १९५७

B.A. Part - III
Semester V, Course No. X DSE E-64
Political History of the Marathas

Course Objectives: The course is designed to study the political condition of Marathas after 1707. The Maratha polity was transformed into the largest political entity of India in the eighteenth century. The course introduces the students to the political developments which led to the expansion of Maratha power in the eighteenth century. It also explores the causes and events which led to the eventual decline of Maratha power.

Course Outcomes:

After studying the course the student will be able to...

- 1) Describe the political conditions of the Marathas upto the year 1740
- 2) Explain the role of Balaji Bajirao.
- 3) Explain the causes and effects of the Battle of Panipat.
- 4) Understand the political condition of the Marathas after 1761.
- 5) Critically analyze the causes for the decline of Maratha power.

Module I: Political condition up to 1740

- a. Release of Shahu; Struggle between Shahu and Maharani Tarabai.
- b. Balaji Vishwanath : Delhi Campaign, Maratha Confederacy
- c. Bajirao Peshwa: Northern Policy, Relations with Nizam

Module II: Balaji Bajirao and Battle of Panipat(1761)

- a. Relations with Angre
- b. Conflict with Raghuji Bhosale
- c. Battle of Panipat-1761

Module: III Political condition after 1761

- a. Madhavrao Peshwa
- b. Mahadji Shinde
- c. Nana Phadnavis

Module IV: Decline of the Maratha Power

- a. Peshwa Bajirao II
- b. Second and Third Anglo- Maratha War
- c. Causes for the decline of Maratha power

Select Reference books :

- अप्पासाहेब पवार (संपा) : ताराबाई कालीन कागदपत्रे, खंड १, शिवाजी विद्यापीठ, २०१८
- भावे, वा. कृ., पेशवेकालीन महाराष्ट्र, पुनर्मुद्रित, इंडियन काउन्सिल अन्व हिस्टॉरिकल रिसर्च, नवी दिल्ली, १९७६
- सेतुमाधवराव पगडी : मराठ्यांचे स्वातंत्र्ययुद्ध, पुणे, १९६२

- महादेव गोविंद रानडे, मराठी सत्तेचा उत्कर्ष, वरदा प्रकाशन, २०१६
- प्र.न.देशपांडे : मराठी सत्तेचा उदय आणि उत्कर्ष, स्नेहवर्धन पब्लिशिंग हाऊस, पुणे, २००१
- न.र.फाटक :(अनु.) : मराठी सत्तेचा उत्कर्ष, (म.गो.रानडेकृत राईज ऑफ मराठा पॉवर चे भाषांतर)
- जयसिंगराव पवार : महाराणी ताराबाई, ताराणाणी विद्यापीठ प्रकाशन, १९७५
- जयसिंगराव पवार मराठी साम्राज्याचा उदय आणि अस्थ, कोल्हापूर , १९९३
- त्र्यं.श.शेजवलकर, श्री शिवछत्रपती- संकल्पित शिवचरित्राची प्रस्तावना, आराखडा. व साधने, मराठा मंदीर प्रकाशन, मुंबई, १९६४.
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- गो. स. सरदेसाई, मराठी रियासत, १ ते ८ खंड , पॉप्युलर प्रकाशन, पुणे
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- S.R. Sharma- The founding of Maratha freedom, Orient Longmans, Bombay, 1964
- H.N. Sinha – Rise of the Peshwas, The Indian Press (Publications) Ltd, Allahabad, 1954
- S.N.Sen-, Anglo Maratha Relations 1785-1796, Macmillan , Madras, 1974
- P.C.Gupta, Bajirao II and East India Company, Allied Publications Private Limited, Calcutta, 1964
- Brij Kishore, Tarabai and his Times , Bombay , 1963
- G.S. Sardesai- New History of Maratha's Vols I,II and III, Bombay, 1948

**B.A. Part III:
Semester V, Course No. XI DSE E-65
History: Its Theory**

(Field visit to any important historical place, monuments and record offices is essential)

Course Objectives:

This course has been designed to impart knowledge of the discipline of history to the students. The students will learn the nature and scope of the discipline. They will have a clear understanding of the nature of the evidence collected from primary and secondary sources. They will be introduced to the process of presenting and writing history. They will know the methods of writing history.

Course Outcomes:

After studying the course the student will be able to...

- 1) Understand the definition and scope of the subject of History
- 2) Know the process of acquiring historical data
- 3) Explain the process of presenting and writing history
- 4) Understand the methods of writing history

Module I: History: Definition and Scope

- a) Meaning, Scope and Nature
- b) Types of History
- c) Interdisciplinary Approach

Module II: Acquisition of Historical Data

- a) Sources: Nature and Types
- b) Methods of Data Collection
- c) Methods of Critical Enquiry

Module III: Process of presenting and writing history

- a) Steps of Historical Research
- b) Data Analysis and Interpretation
- c) Presentation

Module IV: Methods of History writing

- a) Notetaking
- b) Footnotes and Endnotes
- c) Index, Appendix, Bibliography

Select Reference books:

- B. Shaik, Ali., History, Its Theory and Method, Macmillan India Ltd, Madras, 1978
- Carr, E. H., What is History, Palgrave Publishers Ltd., Macmillan, 1986
- Chitnis, K. N., Research Methodology in History, Poona, 1979

- Bajaj, S. K., Research Methodology in History, Anmol Publications Pvt. Ltd., New Delhi, 1998
- Collingwood, R. G., The Idea of History, Oxford University Press, Oxford 1978
- Gottschalk, Louis., Understanding History, New York, Second Edition, 1969
- Majumdar, R. C., Historiography in Modern India, Bombay, 1970.
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- गायकवाड, आर. डी., सरदेसाई, बी. एन. आणि हनमाने, व्ही. एन. इतिहासलेखन पद्धत व ऐतिहासिक स्मारके यांचा अभ्यास, फडके प्रकाशन, कोल्हापूर, १९८८
- गद्रे, प्रभाकर., इतिहास लेखनाच्या परंपरा, श्री मंगेश प्रकाशन, नागपूर, २००४
- सरदेसाई, बी. एन., इतिहासलेखनपद्धती, फडके प्रकाशन, कोल्हापूर, २००४
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- देशमुख, प्रशांत., इतिहासाचे तत्त्वज्ञान, विद्या बुक्स पब्लिशर्स, औरंगाबाद, २००५
- लेले, वि. गो., (अनुवादक) इतिहास म्हणजे काय? कॉन्टिनेन्टल प्रकाशन, पुणे, १९९४
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- आगलावे, प्रदीप., सामाजिक सनोधन, पदधती शास्त्र व तंत्र, साईनाथ प्रकाशन, नागपूर, २०१९
- देव, प्रभाकर., इतिहास ऐक शास्त्र, कल्पना प्रकाशन नांदेड, १९९७

SEMESTER VI

B.A. Part III

Semester VI, Course No. XII DSE E-186

Ancient India (From 4th c. BC to 7th c. AD)

Course Objectives: This course explores the history of India from the 4th century BC to the 7th century A.D. It takes a panoramic survey of the historical developments during this crucial period of Indian history. The course studies the eventful changes which took place under the Satavhana, Kushanas, Guptas, Vakatakas, Chalukyas and Pallavas. The students will be introduced to the incomparably vivid picture of India which prevailed during the ancient period. They will be acquainted with not only the glory of Ancient India but also the social inequality and social evils which have shaped India in the past.

Course Outcomes:

After studying the course the student will be able to...

- 1) Know the political, economic and religious developments which took place in early historic India
- 2) Explain the role played by Major Satavahana, Kushana, Gupta and Vakataka Kings
- 3) Give an account of the developments in the Post-Gupta period
- 4) Have an informed opinion about the society and culture of Ancient India

Module I: Early Historic India

- a) Sources: Gatha Saptashati, Periplus of the Erythraean Sea
- b) Major Kings: Satavahana and Kushanas
- c) Industry and Trade
- d) Hinayana Buddhism

Module II: The Classical Age

- a) Major Kings: Guptas and Vakatakas
- b) Economy and Greater India
- c) Literature and Science
- d) Religion

Module III: The Post-Gupta Period

- a) Source: Hiuen Tsang
- b) North India: Harshavardhana
- c) Deccan: Early Chalukyas of Badami
- d) South India: Pallavas

Module IV: Society and Culture

- a) Position of Women and Varna Structure (From Vedic period to Post-Gupta period)
- b) Education
- c) Art (From Mesolithic Art to Ajanta Paintings)
- d) Architecture- (Rock-Cut Caves (Maharashtra) to Constructed Temples (Madhya Pradesh))

Select Reference Books :

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- Kosambi, D. D. (1975): An Introduction to the Study of Indian History: Popular Prakashan.
- Majumdar, R. C.; Bharatiya Vidya Bhavan; Bhāratīya Itihāsa Samiti (1951): The History and Culture of the Indian People: The Vedic age: G. Allen & Unwin (The History and Culture of the Indian People).
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- Munshi, K. M.; Majumdar, R. C. (1997): The Classical Age: Bharatiya Vidya Bhavan (History and culture of the Indian people / General ed.: R.C. Majumdar).
- Sastri, K.A.N. (1958): A history of South India from prehistoric times to the fall of Vijayanagar: Oxford University Press.
- मोतीचंद्र, सार्थवाह, साहित्य अकादमी, नवी दिल्ली , २०१०
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- थापर रोमिला, अर्ली इंडिया, के सागर पब्लिकेशन, पुणे, २०१३
- थापर रोमिला दी पेंग्वीन हिस्टरी ऑफ अर्ली इंडिया, के सागर पब्लिकेशन्स, पुणे, २०१८
- वासंती फडके (अनु.), एंशंट इंडिया (प्राचीन भारत) मूळ लेखक शर्मा आर.एस., के सागर पब्लिकेशन, पुणे, २०१५

B.A. Part III
Semester VI, Course No. XIII DSE E-187
History of Medieval India (1526-1707 AD)

Course Objectives : This course explores the history of the Mughal period in India. The Mughals introduced fundamental changes in the polity, economy, society, culture and religion of India. The Bahamani kingdom in the Deccan also split up into five smaller kingdoms during this period. In the course the students will be introduced to the important events, personalities and developments in India. They will know the policies followed by important rulers and will acquaint themselves with the general scenario prevalent in India during the period. They will understand how a syncretic culture developed in India during the period.

Course Outcomes:

After studying the course the student will be able to...

- 1) Know about the various sources for writing Medieval Indian history
- 2) Explain the role of rulers like Babar, Akbar, Chandbibi and Ibrahim Adilshah II
- 3) Gain knowledge about the administrative and revenue system
- 4) Describe the condition of Industry and trade
- 5) Explain important developments in religion, society and culture

Module I: Sources

- a) Literary: Akbarnama, Gulshan -i -Ibrahimi
- b) Archaeological (excluding monuments)
- c) Accounts of Foreign Travelers: Francois Bernier, Niccolo Manucci

Module II - Major Rulers

- a) Babar: Battle of Panipat and foundation of Mughal empire.
- b) Akbar: Rajput policy
- c) Chandbibi
- d) Ibrahim Adilshah II

Module III- Administration and Economy

- a) Administration: Central and Provincial
- b) Land Revenue: Akbar and Malik Ambar
- c) Industry and Trade

Module IV: Religion, Society and Culture

- a) Religious Policy: Akbar and Aurangzeb
- b) Society: Hindu and Muslim
- c) Architecture: Mughal and Adilshahi

Select Reference Books:

- Rizvi, S.A.A., The Wonder that was India, Part II, Rupa, Delhi, 2002
- Chitnis, K.N., Glimpses of Medieval Indian Ideas and Institutions, 1974
- Chitnis K. N. Socio- Economic Aspects of Medieval India, Poona, 1979

- Mehta, Jaswant Lal, Advanced Study in the History of Medieval India, Volume I to III, Sterling, New Delhi, 1981.
- Qureshi I.H., The Administration of the Moghal Empire, Delhi, Low Price, Publication 1990
- Raychaudhuri Tapan and Irfan Habib (eds.), Cambridge Economic History of India, Vol. I. C. 1200 C. 1750., Delhi, S. Chand, 1984
- J.F. Richards, The Mughal Empire, Delhi Foundation Books, 1993.
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- जे. एल. मेहता, क्षीरसागर वि. एस, देशपांडे व्ही. टी, मध्ययुगीन भारताचा बृहत् इतिहास , तीन खंड, के' सागर पब्लिकेशन्स, पुणे, २०१७
- Stein, Burton, Vijayanagara , Cambridge University Press, 1989
- M. P. Patil, Court Life under the Vijaynagar Rulers, B.R. Publishing Corporation, 1999
- सतीश चंद्र , वि. एस. क्षीरसागर, मध्ययुगीन भारत – मोगल साम्राज्य १५२६- १७४८, के सागर पब्लिकेशन्स, २०१७
- Salma Ahmed Farooqui, A Comprehensive History of Medieval India, Pearson, 2011.
- के. एन चिटणीस: मध्ययुगीन भारतीय संकल्पना व संस्था, खंड १ ते ४, पुणे, १९८२
- श. गो. कोलरकर: मध्ययुगीन भारताचा इतिहास (१२०६ ते १७०७) , श्री मंगेश प्रकाशन , १९९४
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- डब्ल्यू. एच. मूरलॅन्ड, अबकार कालीन हिंदुस्थान , ICHR, डायमंड प्रकाशन, पुणे, २००६
- डब्ल्यू. एच. मूरलॅन्ड, अबकार ते औरंगजेब, ICHR, डायमंड प्रकाशन, पुणे, २००६
- एन. ए. सिद्दिकी, मोगलकालीन महसूल पद्धती, ICHR, डायमंड प्रकाशन, पुणे , २००६
- जदूनाथ सरकार, औरंगजेब, डायमंड प्रकाशन, पुणे, २००६

B.A. Part III
Semester VI , Course No: XIV. DSE E-188
Making of the Modern World (16th to 19th Century)

Course Objectives: This course deals with significant events in global history. The primary objective of the course is to introduce the students to the important events which have happened in the world in modern times. These events which were revolutionary in character had a profound impact on the making of the modern world. The students will be acquainted with the events of the Glorious revolution in England. They will understand the causes for the rise and spread of Nationalism and Imperialism. Moreover, they will know about some select important personalities who contributed to the making of the Modern World.

Course Outcomes:

After studying the course the student will be able to...

- 1) Know the causes and consequences of the Glorious revolution in England
- 2) Explain the concept of Nationalism and account for its rise and spread.
- 3) Describe the unification of Italy and Germany.
- 4) Give an account of the rise, growth and impact of Imperialism
- 5) Explain the significance of the Partition of Africa
- 6) Know the life and thoughts of important leaders like Metternich, Karl Marx and Abraham Lincoln

Module I: Glorious Revolution

- a) Causes
- b) Major events
- c) Consequences

Module II: Nationalism

- a) Causes for the rise and spread of Nationalism
- b) Unification of Italy and Germany
- c) Impact

Module III : Imperialism

- a) Causes for rise and growth of Imperialism
- b) Partition of Africa
- c) Impact on the world

Module IV: Important Personalities

- a) Metternich
- b) Karl Marx
- c) Abraham Lincoln

Select Reference books:

- Arun Bhattacharjee, World Revolutions, Ashish Publishing House, New Delhi, 1988
- L. Mukherjee, A Study of Modern Europe and the World, Calcutta, 2011
- David Thompson, Europe Since Napoleon, Penguin books, 1971
- T.C.W. Blanning, The Oxford History of Modern Europe, OUP, 2000

- C.J.H. Hayes, Modern Europe to 1870 , Macmillan, University of Michigan, 1953
- Desmond Seward, Metternich: The First European, Thistle Publishing, 2015
- मदन मारडीकर, आधुनिक युरोपचा इतिहास इ.स. १७८१ ते १९४५, विद्या बुक्स, २००५
- लिमये, स्मिता, अब्राहम लिंकन: दास्यमुक्तिचा देवदूत, निधीगंधा बुक एजन्सी; नागपूर, २०१७
- कारखानीस सरला, कार्ल मार्क्स चरित्र आणि विचार, जयंत एस भट, १९६०
- बापट राम, कार्ल मार्क्सचा विचार, परामर्श प्रकाशन, १९८४

B.A. Part III
Semester VI, Course No. XV DSE E-189
Polity, Economy and Society under the Marathas

Course Objectives : The objective of the course is to explore the nature of the Maratha polity. It will acquaint the students with the economic and social condition prevalent under Maratha rule. The course will also introduce the students to the sources of Maratha history.

Course Outcomes:

After studying the course the student will be able to...

- 1) Know the various sources for writing the history of the Marathas
- 2) Explain the significant developments in the polity of the Marathas
- 3) Describe the economic conditions
- 4) Explain the social conditions.

Module I: Sources

- a. Importance of sources
- b. Indian Sources: Sanskrit, Marathi, Persian
- c. Foreign sources : Portuguese and English

Module II: Polity under the Marathas

- a. Concept of Kingship
- b. Asthpradhan Mandal
- c. Transfer of power – Chhatrapati to Peshwa, Peshwa to Karbhari

Module III: Economic condition

- a. Agrarian system – Land Revenue, Irrigation
- b. Industry
- c. Trade and Commerce

Module IV: Social condition

- a. Social Structure - Family , Untouchability, Vethbegar , Slavery.
- b. Condition of women and caste system
- c. Education and Festivals

Select Reference books :

- शेणोलीकर ह.श्री. महाराष्ट्र संस्कृती : घडण आणि विकास, मोघे प्रकाशन, कोल्हापूर, १९७२
- भावे. व. कृ. : शिवराज्य व शिवकाल, भावे प्रकाशन, पुणे, १९५९
- अत्रे. त्र्यं. ना. गाववाडा, राजहंस प्रकाशन प्रा लि., पुणे, २०१८
- वि. गो. खोबरेकर , महाराष्ट्रातील दप्तरखाने: वर्णन आणि तंत्र, १९६८
- कुलकर्णी अ. रा. : शिवकालीन महाराष्ट्र, १९९३ आवृत्ती

- गवळी पा. आ. : पेशवेकालीन समाज व जातीय संगर्ष, १९८२
- गवळी पा. आ., पेशवेकालीन गुलामगिरी व अस्पृश्यता, १९८१
- ओतुरकर, आर्. व्ही., पेशवेकालीन सामाजिक व आर्थिक जीवन, खंड १, भा. इ. सं. मं. , १९५०
- गवळी, पा. आ., पेशवेकालीन गुलामगिरी व अस्पृश्यता, प्राची प्रकाशन, कोल्हापूर, १९९०
- गवळी, पा. आ., पेशवेकालीन महाराष्ट्र-संस्था व संकल्पना, कैलास पब्लिकेशन्स औरंगाबाद, २०००
- चापेकर, ना. गो., पेशवाईच्या सावलीत, पुणे, १९३७
- जोशी, एस्. एन्., मराठेकालीन समाजदर्शन, अ. वि. गृह प्रकाशन, पुणे, १९६०
- हेरवाडकर, आर्. व्ही., मराठी बखर, व्हीनस प्रकाशन, मुंबई, १९८६
- Chitnis, K. N., Glimpses of Medieval Indian Ideas and Institutions, 2nd ed., Pune, 1981
- Chitnis, K. N., Glimpses of Maratha Socio-Economic History, Atlanta Polishers, New Delhi, 1994
- Choksey, R. D., Economics Life in Bombay Deccan, Asia Publishing House, Mumbai 1955
- Desai, S.V., Social Life in Maharashtra under the Peshwas, Popular Prakashan, Bombay, 1962
- Duff, Grant., A History of Mahrattas, Vol. I to III, Oxford University Press, Calcutta, 3rd ed., 1921
- Gune, V. T., The Judicial System of the Marathas, Deccan College, Pune, 1953
- Kulkarni, A. R., Maharashtra in the Age of Shivaji (A Study in Economic History), Pune, 1969.
- Mahajan, T. T., Industry, Trade and Commerce during the Peshwa period, Jaipur, 1980
- Kadam V.S. Maratha Confederacy: A study in its origin and development, Munshiram Manoharlal Publishers Pvt Limited , 1993
- Fukazawa, H – The Medieval Deccan: Peasants, Social Systems and States Sixteenth to Eighteenth Centuries, OUP, New Delhi, 1999

B.A. Part III
Semester VI , Course No. XVI DSE E-190
Methods and Applications of History

Course Objectives: This course has been designed to impart knowledge of the methods of history to the students. The students will understand the nature of archival sources. They will be introduced to the trends of local and oral history and will know about the tools of local history like Survey, Interview and Questionnaire. The students will be introduced to the technique of collecting data through oral interviews. The students will understand the concept of the museum and learn the basic principles of museology. Moreover, the course will introduce the students to the relevance of monumental heritage and its relationship with the discipline of history through the concept of Heritage Tourism

Course Outcomes:

After studying the course the student will be able to...

- 1) Understand the nature of archival sources
- 2) Gain conceptual clarity about recent trends in history.
- 3) Know about the application of history in museums.
- 4) Explain the concept and scope of heritage tourism.

(Note: The students should undertake Individual/ Group field projects for assignments in which they could take oral interviews / surveys/ regarding persons, events and local socio-political, economic and cultural developments related to local history. They should make audio recordings of the interviews and develop an archive of local oral history in the college department. These audio interviews would form an important source of local history)

Module I: Archival Sources

- a) Meaning, types, and importance of Archives
- b) Types of Records
- c) Concept of Digital Archives

Module II: Recent Trends in History

- a) Local History
- b) Oral History
- c) Tools of Local History (Survey, Interview, Questionnaire)
- d) Interview Technique

Module III: Museology

- a) Definition, Nature and Importance of Museum
- b) Types of Museums
- c) Methods of Collection, Conservation and Preservation Techniques of Objects

Module IV -Understanding Heritage Tourism

- a) Concept, Scope and Significance of Heritage Tourism
- b) Meaning and Historical Perspective of Tourism
- c) World Heritage Sites in India

Select Reference books:

- B. Shaik, Ali., History:Its Theory and Method, Macmillan India Ltd, Madras, 1978
- Chitnis, K. N., Research Methodology in History, Poona, 1979
- Bajaj, S. K., Research Methodology in History, Anmol Publications Pvt. Ltd., New Delhi, 1998
- Sreedharan, E., A Textbook of Historiography 500 BC to AD 2000, Orient Longman, Hyderabad, 2000
- Sarkar, H., Museums and Protection of Monument and Antiquities in India, New Delhi, 1980
- Agarwal, O. P. Conservation of Manuscripts and Pantings of South East Asia, London, 1984
- कोठेकर, शांता., इतिहास तंत्र आणि तत्त्वज्ञान, श्री साईनाथ प्रकाशन, नागपूर, २००५
- गायकवाड, आर. डी., सरदेसाई, बी. एन. आणि हनमाने, व्ही. एन. इतिहासलेखन पद्धत व ऐतिहासिक स्मारके यांचा अभ्यास, फडके प्रकाशन, कोल्हापूर, १९८८
- गद्रे, प्रभाकर., इतिहास लेखनाच्या परंपरा, श्री मंगेश प्रकाशन, नागपूर, २००४
- सरदेसाई, बी. एन., इतिहासलेखनपद्धती, फडके प्रकाशन, कोल्हापूर, २००४
- राजदेकर, सुहास., इतिहासलेखनशास्त्र, विद्या प्रकाशन, नागपूर, १९९८
- सरदेसाई, बी. एन., इतिहासलेखन परिचय, फडके प्रकाशन, कोल्हापूर, २००६
- देशमुख, प्रशांत., इतिहासाचे तत्त्वज्ञान, विद्या बुक्स पब्लिशर्स, औरंगाबाद, २००५
- बेंद्रे, वा. सी., शिवशाहीचा चर्चात्मक इतिहास: साधन चिकित्सा, लोकवाङ्मय गृह, मुंबई, १९७६
- आठवले, सदाशिव., इतिहासाचे तत्त्वज्ञान, प्राज्ञपाठशाला, वाई, १९६७
- धाटावकर, भास्कर., महाराष्ट्रातील शासकीय पुरालेखागारांची निर्मिती आणि कार्य, चेतन प्रकाशन, मुंबई, २०१०
- खोबरेकर, वि. गो., महाराष्ट्रातील दफ्तरखाने वर्णन व तंत्र, मुंबई, १९८८
- बोरकर, रघुनाथ, संग्रहालयशास्त्र, पिंपळापुरे बुक, नागपूर, २००७
- खतीब, के. ए., पर्यटन भूगोल, मेहता पब्लिशिंग हाऊस, पुणे, २००६

- आगलावे, प्रदीप., सामाजिक संशोधन- पद्धती शास्त्र व तंत्र, साईनाथ प्रकाशन, नागपूर, २०१९
- देव, प्रभाकर., इतिहास ऐक शास्त्र, कल्पना प्रकाशन नांदेड, १९९७
- राऊत, गणेश (संप), दत्तक गावांचा इतिहास, खंड १, २, ३, पुणे विद्यापीठ, पुणे, १९९९
- वांबूरकर जास्वंदी, इतिहास लेखनातील नवे प्रवाह, डायमंड प्रकाशन, पुणे, २०१५

SHIVAJI UNIVERSITY, KOLHAPUR.



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CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Part - I

Chemistry

SEMESTER I AND II

(Syllabus to be implemented from June, 2018 onwards.)

B. Sc. I Semester I

DSC-3A- Chemistry paper I (Inorganic Chemistry) (Theory Credits: 02 : 30 Lectures)

Unit I: Atomic Structure and Periodicity of Elements (09)

- 1.1 Bohr's theory of hydrogen atom and its limitations
- 1.2 Wave particle duality
- 1.3 Heisenberg uncertainty principle
- 1.4 Quantum numbers and their significance
- 1.5 Shapes of *s*, *p* and *d* atomic orbitals
- 1.6 Electrons filling rules in various orbitals: a) Aufbau's principle b) Hund's rule of maximum multiplicity c) Pauli's exclusion principle
- 1.7 Electronic configuration of elements. Stability of empty, half-filled and completely filled orbitals
- 1.8 Periodicity of the elements: General discussion of the following properties of the elements with reference to s block elements: a) electronic configuration b) atomic radii c) ionic radii d) ionization energy e) electron affinity f) electronegativity g) metallic characters h) reactivity i) oxidation state j) melting and boiling points k) chemical properties

Unit II: Chemical Bonding and Molecular structure (A) Ionic Bonding (07)

- 2:1 Definition and formation of ionic bond. General characteristics of ionic bonding
- 2:2 Energetic in Ionic bond formation
- 2:3 Born-Haber cycle for NaCl and its applications
- 2:4 Fajan's Rule, Applications of Fajan's rule for,
 - Polarizing power and polarizability
 - Ionic character in covalent compounds
 - Bond moment, dipole moment and percentage ionic character

Unit III: Chemical Bonding and Molecular structure (B) Valence bond theory (VBT). (07)

- 3.1 Concept of hybridization, different types of hybridization and geometry of following molecules,
 - Linear geometry- BeCl_2 (*sp* hybridization)

- Planer trigonal geometry- BF_3 (sp^2 hybridization)
- Tetrahedral geometry- SiCl_4 (sp^3 hybridization)
- Trigonal bipyramidal geometry- PCl_5 (sp^3d hybridization)
- Octahedral geometry- SF_6 (sp^3d^2 hybridization)
- Pentagonal bipyramidal geometry - IF_7 (sp^3d^3 hybridization)

Unit IV: Chemical Bonding and Molecular structure (C) Molecular orbital theory (MOT) (07)

- 4.1 LCAO method, formation of bonding , anti bonding and nonbonding molecular orbitals.
- 4.2 Conditions for successful overlap, Types of overlaps - S-S ,S-px, Px-Px, Py-Py and Pz-Pz overlaps.
- 4.3 Bond order and its significance.
- 4.4 Energy level sequence for molecular orbital when $n=1$ & 2 .
- 4.5 MO diagrams for homonuclear diatomic molecule of 1st & 2nd period Elements (He_2 , Li_2 , B_2 , N_2 , O_2).
- 4.6 Molecular orbital diagrams for heteroatomic diatomic molecules. (CO , NO)

Reference Books:

- 1) Lee, J.D. *Concise Inorganic Chemistry* ELBS, 1991.
- 2) Cotton, F.A., Wilkinson, G. & Gaus, P.L. *Basic Inorganic Chemistry*, 3rd ed., Wiley.
- 3) Douglas, B.E., McDaniel, D.H. & Alexander, J.J. *Concepts and Models in Inorganic Chemistry*, John Wiley & Sons.
- 4) Huheey, J.E., Keiter, E.A., Keiter, R.L. & Medhi, O.K. *Inorganic Chemistry*:
- 5) Principles of Structure and Reactivity, Pearson Education India, 2006.
- 6) Puri, Sharma, Kalia. *Principles of Inorganic Chemistry*
- 7) Madan R. L. Chemistry for Degree Students(B. Sc. First year), S. Chand Publications

B. Sc. I Semester I

DSC-4A- Chemistry paper II (Organic Chemistry) (Credits: 02 : 30 Lectures)

Unit I: Fundamentals of Organic Chemistry (08)

Introduction, Curved arrow notations, Cleavage of Bonds: Homolysis and Heterolysis. Organic molecular species: Nucleophiles and electrophiles. Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation effect, Reactive Intermediates: Generation, Structure, Stability and Reactions of Carbocations, Carbanions and carbon free radicals.

Unit II: Stereochemistry (09)

Hrs

Introduction, Types of Stereoisomerism, Optical Isomerism: Concept of Chirality, Elements of Symmetry, Optical Isomerism in tartaric acid, 2, 3 Dihydroxybutanoic acid, Enantiomerism, Diastereomerism and Meso compounds, Geometrical isomerism in C=C, C=N and alicyclic compounds. Nomenclature of stereoisomers: D and L, erythro and threo, R and S, E and Z.

Unit III: Aromaticity (07)

Introduction, Characteristics properties of organic compounds, Meaning of terms: Aromatic, Non aromatic, Antiaromatic, Pseudoaromatic, Structure of Benzene: Kekule structure, Resonance structure, M.O. picture, Modern theory of Aromaticity, Mechanism of Electrophilic substitution reactions: Nitration, Sulphonation, Halogenation and Friedel craft reaction.

Unit IV: Cycloalkanes, cycloalkenes and alkadienes (06)

Cycloalkanes: - Introduction. Method of formation - a) By addition of carbene to alkene b) Action of metallic sodium on dihaloalkane c) Diels - Alder reaction d) By reduction of aromatic compounds, Chemical properties- a) Photohalogenation b) Catalytic halogenations c) Catalytic hydrogenation d) Effect of heat e) Reaction with hydrogen halide

Cycloalkenes : Introduction, Method of formation from cyclic compounds, Chemical Properties - a) Hydrogenation b) Addition of Halogens and halogen acids, c) Allylic halogenations

Alkadienes : Introduction, Classification, Buta-1,3-diene - a) Structure b) Methods of formation - from cyclohexane, From Butane by dehydrogenation, From acetylene, From Butane-1,3 - diol, From ethanol and acetaldehyde (Industrial method), Chemical Properties - a) Reaction with hydrogen halide b) Reaction with halogens -With one molar equivalent of halogens (Cl_2 or Br_2) c) Diels- Alder reaction d) Reduction – hydrogenation e) Oxidation – Ozonolysis f) Polymerization

Reference Books:

- 1) Graham Solomon, T.W., Fryhle, C.B. & Snyder, S.A. *Organic Chemistry*, John Wiley & Sons (2014).
- 2) McMurry, J.E. *Fundamentals of Organic Chemistry*, 7th Ed. Cengage Learning India Edition, 2013.
- 3) Sykes, P. *A Guidebook to Mechanism in Organic Chemistry*, Orient Longman, New Delhi (1988).
- 4) Eliel, E.L. *Stereochemistry of Carbon Compounds*, Tata McGraw Hill education, 2000.
- 5) Finar, I.L. *Organic Chemistry* (Vol. I & II), E.L.B.S.
- 6) Morrison, R.T. & Boyd, R.N. *Organic Chemistry*, Pearson, 2010.
- 7) Bahl, A. & Bahl, B.S. *Advanced Organic Chemistry*, S. Chand, 2010.
- 8) D.Nasipuri :Stereochemistry of Organic compounds
- 9) R. L. Madan, Chemistry for Degree Students (B. Sc. First Year), S. Chand.Publication

CHEMISTRY-DSC 3B: Chemistry Paper-III (Physical Chemistry)
(Credits :02 , Lectures-30)

Unit -I Chemical Energetics **(06)**

A)Thermodynamics

Introduction, Basic concepts of thermodynamics, First law of thermodynamics Spontaneous and non-spontaneous process with examples, Statements of second law of thermodynamics, Carnot's cycle and its efficiency. Entropy, Physical Significance of entropy, Statement of Third Law of thermodynamics and calculation of absolute entropies of substances

B) Thermochemistry **(04)**

Important principles and definitions of thermochemistry. Concept of standard state and standard enthalpies of formations, integral and differential enthalpies of solution and dilution. Calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data. Variation of enthalpy of a reaction with temperature – Kirchhoff's equation.

Unit II . Chemical Equilibrium: **(06)**

Chemical Equilibrium: Free energy change in a chemical reaction. Thermodynamic derivation of the law of chemical equilibrium. Distinction between ΔG and ΔG° , Le Chatelier's principle. Relationships between K_p , K_c and K_x for reactions involving ideal gases.

Unit- III. Kinetic Theory of Gases **(07)**

Postulates of Kinetic Theory of Gases and derivation of the kinetic gas equation. Ideal and Non ideal gases, Deviation of real gases from ideal behaviour, compressibility factor, causes of deviation. Van der Waals equation of state for real gases. Explanation of real gas behaviour by Van der Waal's equation, Boyle temperature (derivation not required). Critical Phenomena: PV-isotherms of real gases (Andrew's isotherms), Continuity of state, Critical constants and their calculation from vander Waals equation. Maxwell Boltzmann distribution laws of molecular velocities and molecular energies (graphic representation – derivation not required) and their importance. Temperature dependence

of these distributions. Most probable, average and root mean square velocities (no derivation). Numerical Problems.

Unit- IV. Chemical Kinetics

(07)

Introduction, Rate of reaction, Definition and units of rate constant, Factors affecting rate of reaction. (Nature of reactant, Concentration, pressure, temperature and catalyst.) Order and Molecularity of reaction, Zero order reaction, First order reaction, Characteristics of first order reaction.examples, Pseudo-unimolecular reactions,examples. Second order reaction: Derivation of rate constant for equal and unequal concentration of the reactants. Characteristics of Second order reaction., Determination of order of reaction by i) integration method ii) graphical method iii) Half life method, Effect of temperature on rate of reaction, Arrhenius equation, Concept of energy of activation.

Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment only). Numerical problems.

Reference Books:

1. Principles of Physical Chemistry Puri, Sharma and Pathania, Vishal Publishing House, 44th Edition
2. Advanced Physical Chemistry Gurdeep Raj GOEL Publishing House, 36th Edition
3. Essentials of Physical Chemistry,Bahl , Tuli and Bahl
4. Text Book of Physical Chemistry, Soni and Dharmarha
5. Essentials of Nuclear Chemistry by H J Arnika, New Age, 4th edition.
6. Mathematical preparation of Physical Chemistry : F. Daniel ,Mc-Graw Hill Book Company Ltd.
7. Elements of Physical Chemistry : S. Glasstone and D.Lewis
(D.Van Nostrand Co.Inc)
8. Physical Chemistry : W. J. Moore (Orient Longman)
9. Principles of Physical Chemistry : Maron Prutton
- 10.University Chemistry : B. H. Mahan (Addison - Weseley Publ. Co.)
11. Chemistry for Degree students(B. Sc. First Year): R L Madan (S. Chand and Company)

B.Sc. I Semester II
DSC-4B-Chemistry Paper IV (Analytical Chemistry)
(Theory Credits:02, Lectures-30)

- 1. Introduction to analytical Chemistry (06)**
 - 1.1 Introduction
 - 1.2 Importance of analysis
 - 1.3 Analytical processes (Qualitative and Quantitative)
 - 1.4 Methods of analysis (Only classification)
 - 1.5 Sampling of solids, liquids and gases
 - 1.6 Errors, types of errors (determinate and indeterminate), methods of expressing accuracy (Absolute and relative error)
 - 1.7 Significant figures, mean, median, standard deviation (Numerical problems expected)
- 2. Chromatography (06)**
 - 2.1 Introduction, Basic Principle of Chromatography, Basic terms, Classification of Chromatography
 - 2.2 Paper Chromatography- Principle, Methodology-types of papers and treatment, sample loading, choice of solvent, development-ascending, descending, circular, location of spots, determination of R_f value, Applications, advantages and disadvantages
 - 2.3 Thin layer chromatography; Principle, Solvent system, stationary phases, preparation of TLC plate, Detecting reagents, methodology-sample loading, development, detection of spot, R_f value, Applications, advantages and disadvantages
 - 2.4 Comparison of paper chromatography and TLC
- 3. Theory of titrimetric Analysis (06)**
 - 3.1 Introduction
 - 3.2 Acid-base indicators
 - 3.3 Theory of indicators w.r.t. Ostwald's ionization theory and quinoid theory
 - 3.4 Neutralization curves and choice of indicators for
 - a. Strong acid-strong base
 - b. Strong acid-weak base
 - c. Strong base-weak acid
 - 3.5 Complexometric titrations
 - a. Introduction
 - b. Types EDTA titrations
 - c. Metallochromic indicators-Eriochrome black- T
 - d. Indicator Action of Eriochrome black- T

4. Water Analysis**(06)**

- 4.1 Physical analysis of water – pH, Conductance, Colour, odour, Turbidity and taste
- 4.2 Chemical Analysis – Total Dissolved solids , Hardness, Salinity, Alkalinity, Acidity, Sulphates, Nitrates, Dissolved Oxygen, Chemical Oxygen Demand, Biological Oxygen Demand

5. Analysis of Fertilizers**(06)**

- 5.1 Introduction
- 5.2 Types of fertilizers
- 5.3 Necessity and requirements of good fertilizers
- 5.4 Sampling and sample preparation
- 5.5 Analysis of Nitrogen by Kjeldahl's method
- 5.6 Analysis of Phosphorus by phosphomolybdate method
- 5.7 Analysis of Potassium by sodium tetraphenyl borate method

References:

- 1. Textbook of quantitative Inorganic analysis-A.I. Vogel
- 2. Instrumental methods of Chemical analysis-H. Kaur
- 3. Instrumental methods of Chemical analysis-B.K. Sharma
- 4. Instrumental methods of Chemical analysis-Chatwal Anand
- 5. Fundamental of analytical Chemistry-Skoog and West
- 6. Basic Concepts of analytical Chemistry-S.M. Khopkar
- 7. Analytical Chemistry-Alka Gupta (Pragati Prakashan)
- 8. Indian Pharmacopoeia
- 9. Chromatography-H. Kaur
- 10. Chemistry for Degree students(B.Sc. First Year): R. L. Madan (S. Chand and Company)

**B.Sc. I Semester I and II
Practical Course**

(Credits 02: Lectures-04per week)

A) Inorganic Chemistry (Any Six)

1. To prepare standard 0.1 N KMnO_4 solution and to determine the strength of given oxalic acid solution.
2. To determine quantity of Fe(II) ions from the given solutions by titrating it with 0.1 N $\text{K}_2\text{Cr}_2\text{O}_7$ solution by using internal indicator
3. To estimate amount of Cu(II) ions by iodometric titration by using $\text{Na}_2\text{S}_2\text{O}_3$ solution.
4. To standardize supplied EDTA solution by titrating with 0.01 M ZnSO_4 solution and to estimate amount of calcium from given solution by using Erio-T as an indicator.
5. Quality control-To determines percentage purity of the given sample of soda ash Na_2CO_3 by titrimetric method.
6. Estimation of amount of Acetic acid from the given vinegar sample by titrimetric method
7. Chromatography : Separation and identification of cations by Paper Chromatographic technique from the following mixtures :
 - a) $\text{Ni}^{2+} + \text{Cu}^{2+}$
 - b) $\text{Ni}^{2+} + \text{Co}^{2+}$

B) Organic Chemistry

1. **Estimations** (any two) :
 1. Estimation of aniline. (by bromination method)
 2. Estimation of acetamide.
 3. Estimation of Aspirin.
2. Organic Qualitative Analysis: Detection of physical constant, type, functional group, elements, and Confirmatory test.
 Identification of Organic Compounds (at least eight) (four containing at least one extra element- N, S, Cl, Br, I)
 - a) Acids: Oxalic acid, Benzoic acid, cinnamic acid
 - b) Phenols: Beta-Naphthol, Resorcinol
 - c) Base: Aniline, p-Nitroaniline

d) Neutral: Acetone, Acetanilide, Chloroform, m-Dinitrobenzene, Thiourea, Bromobenzene

3. Purification of organic compounds by crystallization (from water and alcohol) and distillation.

References:

- 1) Vogel's Text Book of Quantitative Chemical Analysis. (Longmann) ELBS Edition.
- 2) Vogel's Text Book of Qualitative Chemical Analysis. (Longmann) ELBS Edition.
- 3) Hand book of Organic Qualitative Analysis : Clarke.
- 4) Comprehensive Practical Organic Chemistry – Qualitative Analysis by V. K. Ahluwalia, Sunita Dhingra. University Press. Distributor – Orient Longman Ltd.
- 5) Comprehensive Practical Organic Chemistry preparation and Quantitative Analysis : V. K. Ahluwalia, Renu Aggarwal. University Press. Distributor – Orient Longman Ltd.
- 6) A Laboratory Hand - Book of Organic Qualitative Analysis and Separation : V. S. Kulkarni. Dastane Ramchandra & Co. Pune

C) Physical Chemistry

Physical Chemistry (Any Six)

1. Determination of equivalent weight of Mg by Eudiometer.
2. Study of specific reaction rate of hydrolysis of methyl acetate in presence of HCl.
3. Determination of heat of ionization of weak acid by using polythene bottle.
4. Determination of heat capacity of calorimeter for different volumes.
5. Determination of enthalpy of neutralization of hydrochloric acid with sodium hydroxide.
6. Determination of integral enthalpy of solution of salts (KNO_3 , NH_4Cl).
7. Determination of enthalpy of hydration of copper sulphate.
8. Study of the solubility of benzoic acid in water and determination of ΔH .

References:

- 1) Practical book of Physical Chemistry: Nadkarni, Kothari & Lawande.

- 2) Experimental Physical Chemistry: A. Findlay.
- 3) Systematic Experimental Physical Chemistry: S. W. Rajbhoj, Chondhekar.
(Anjali Publication.)
- 4) Experiments in Physical Chemistry: R. C. Das and B. Behra. (Tata Mc Graw Hill)
- 5) Advanced Practical Physical Chemistry: J. B. Yadav (Goel Publishing House.)
- 6) Practical Physical Chemistry: B. D. Khosala. (R. Chand & Sons)
- 7) Experiments in Chemistry: D. V. Jahagirdar.
- 8) A Text Book of Quantitative Inorganic Analysis Including Elementary Instrumental Analysis: A.I. Vogel (Third Ed.) (ELBS)

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

**Revised Syllabus For
Bachelor of Science
Part-II
Chemistry
CBCS PATTERN**

**Syllabus to be implemented from
June, 2019 onwards.**

Name of the Topics	Expected Learning Outcome
1 Electrolytic Conductivity	Learning and understanding conductivity and transport number of the aqueous solutions with different applications.
2 Physical Properties of Liquids	Knowledge about surface tension, viscosity and refractive index will be gained by the student
3 Surface Chemistry	Learning and understanding surface phenomena at heterogeneous surfaces
4 Nuclear Chemistry	Learning the various Nuclear phenomena and measurement of nuclear radiations
5 Chemical Kinetics	Learning and understanding the knowledge about third order reaction and theories of reaction rates

Unit- I Electrolytic Conductivity**(16L)**

Introduction, Types of conductors, Conductivity, Equivalent and Molar conductivity and their variation with dilution for weak and strong electrolytes in aqueous solution. Equivalent conductivity at infinite dilution, Measurement of conductance by using Wheatstone bridge. Kohlrausch law of independent migration of ions and its applications such as Ionic mobility, determination of degree of ionization of weak electrolyte, solubility and solubility products of sparingly soluble salts, ionic product of water, hydrolysis constant of salt. Conductometric titrations (only acid base titrations). Advantages of conductometric titrations.

Transference number, Hittorf's rule, determination of transport number using Moving boundary method, factors affecting transport numbers. Numerical problems.

Unit- II Physical Properties of Liquids**(6L)**

Introduction, Classification of physical properties, Surface tension and its determination using Stalagmometric and differential capillary rise methods, Viscosity and its determination using Ostwald's viscometer, Refractive index (Snell's law), Specific and Molecular refractivities and its determination using Abbe's refractometer.

Unit – III Surface Chemistry**(7L)**

Introduction, Adsorption as a surface phenomenon, Definition of adsorption, adsorbent, adsorbate, adsorbent. factors affecting adsorption, Types of adsorption, Distinction between physical and chemical adsorption, Adsorption isotherms: Freundlich adsorption isotherm, Langmuir adsorption isotherm. Types of physical adsorption isotherms, applications of adsorption.

Unit – IV Nuclear Chemistry**(5L)**

Introduction, Types of Nuclear radiation, properties of α , β and γ radiations, Detection and measurement of nuclear radiations by Scintillation and Geiger muller counter methods, radioactive equilibrium and range of α - particles, Geiger Nuttal relations, determination of radioactive constant (decay constant).

Introduction, Third order reactions: derivation of rate constant, characteristics and examples of third order reaction. Theories of reaction rates as Collision theory and Transition state theory (only quantitative aspect, derivation not expected),

Reference Books:

- 1) Barrow, G.M. Physical Chemistry Tata McGraw-Hill (2007).
- 2) Castellan G.W. Physical Chemistry 4th Ed. Narosa (2004).
- 3) Kotz, J.C. Treichel, P.M.& Townsend, J.R. General Chemistry, Cengage Learning India Pvt Ltd: New Delhi (2009).
- 4) Mahan, B.H. University Chemistry, 3rd Ed. Narosa (1998).
- 5) Petrucci, R.H. General Chemistry, 5th Ed., Macmillan Publishing Co., New York (1985).
- 6) Elements of Physical Chemistry S., Glasstone, D. Lewis. (2010)
- 7) Principles of physical Chemistry Marron and Prutton. (2007).
- 8) Elements of Physical Chemistry P.W. Atkins (2017)
- 9) Essentials of Physical Chemistry Bahl and Tuli. S. Chand, 2010.
- 10) Physical Chemistry Daniels and Alberty (2016)
- 11) University General Chemistry C.N.R. Rao (2016)
- 12) Principles of Physical Chemistry Puri, Sharma and Pathania 47th Edition, Vishal Publishing Co. Daryaganj Delhi. 110002 (2017)
- 13) Physical Chemistry A.J. Mee. (2015)
- 14) Advanced Physical Chemistry Gurudeep Raj (2017)
- 15) Physical Chemistry R.A. Alberty. (2017-18)
- 16) Petrucci, R.H. *General Chemistry* 5th Ed. Macmillan Publishing Co.: New York (1985).

Expected learning Outcomes :

Name of the topic	Expected Learning Outcome
1.Basic concepts in Industrial Chemistry	a.Learning and Understanding basic concepts and concentration terms b.Distinguish between classical and industrial chemistry c. Distinguish between unit operations and unit processes
2. Unit Operations	Knowledge of some unit operations
3.Corrosion and Electroplating	Understanding the process of corrosion and Knowledge of prevention from corrosion
4.Paper Industry	Knowledge of Indian paper industry
5.Soap and Detergents	Knowledge about the chemical nature and cleansing action of soap

Unit I Basic Concepts in Industrial Chemistry(10)

The difference between classical chemistry and industrial chemistry, Raw material for the Chemical Industry,Material Safety data sheets,Units that make up a chemical process-unit operation and unit processes, Flow Diagrams,Block Diagram, Process flow diagram / flow sheets, Material Balances-The purpose of mass balance calculations,Material Balance Equations,Mass balance calculation procedure and simple example

Definition and Explanation of terms -Normality, Equivalent weight, Molality, Molecular weight,Molarity, Molarity of mixed solution, Acidity of base, Basicity of acid,ppt, ppm, ppb solutions, Mole Fraction, Weight fraction, Percentagecomposition by W/W, W/V, V/V, Problems based on Normality, Molarity, mole fraction, mixed solution, etc.

Unit II Unit Operations(06)

Size reduction- Principle,Jaw crusher,ball mill

Size Enlargement –Principle,Pellet mill,tumbling agglomerators

Separation – Magnetic separation,Froth flotation,Distillation-Distillation of liquid mixtures, Types of distillation, Types of columns and packings, Condensers, Vacuum distillation, Spinning-banddistillation, Steam distillation.

Unit III. Corrosion and Electroplating (09)

Introduction of corrosion, Electrochemical theory of corrosion,Factors affecting on corrosion -i. Position of metals in the electrochemical series on the basis of standard reduction potential ii. Purity of metal iii. Effect of moisture iv. Effect of oxygen (differential aeration principle) v. Hydrogen overvoltage, Methods of protections of metals from corrosion, Electroplating: Electrolysis, Faraday's laws, Cathode current Efficiency, Basic principles of electroplating, Cleaning of articles, Electroplating of chromium, Anodising

Unit IV Paper Industry (06)

Manufacturing of Pulp,Types of pulp-Sulphate and soda ,Manufacturing of paper, calendaring ,ecological problems of Indian Paper industry, Features of good paper industry

Unit V Soaps and Detergents (07)

Introduction, Soaps - Raw materials, Types of soaps, Cleansing action of soap, Manufacture of soap - Boiled or Hot Process, Detergents - Raw Materials, Types of Detergents: Anionic, cationic and amphoteric, Preparation of Teepol and Deriphat, Comparisons between soaps and detergents.

Reference Books:

- 1) Principles of Physical Chemistry by Puri, Sharma and Pathania, Vishal Publishing company Jalindhar
- 2) Essential of Physical Chemistry by Bahl B.S., Tuli G.D. and Bahl Arun, S.Chand and Company Ltd. New Delhi
- 3) Modern Analytical Chemistry By David Harvey, McGRAW-Hill International Edition, 2000
- 4) Industrial chemistry by B.K.Sharma, Goel Publishing House, 16th edition 2011
- 5) Advanced Inorganic Chemistry, Vol.No.1, by Gurudeep Raj, Krishna Prakashan Media Ltd, Goel Publication, Meerut
- 6) Analytical chemistry by B.K.Sharma, Krishna Prakashan Media Ltd, Meerut, edition 3rd 2011
- 7) Principles of electroplating and electroforming by Blum and Hogaboom
- 8) Chemical Process Industries by Shreve and Brink
- 9) Industrial Chemistry by Loutfy Madkor and Helen Njenga
- 10) Elementary Principles of Chemical Processes by Richard Felder and Ronald Rousseau, John Wiley and Sons

Expected learning Outcomes :

Name of the topic	Expected Learning Outcome
1.Co-ordination Chemistry	.Learning and Understanding basic concepts about coordination complexes
2. Chelation	Knowledge about application of chelates in analytical chemistry.
3. P- Block elements	Understanding the properties of P – block elements
4. Chemistry of elements of 3d series elements	Student will be capable of understanding the properties of 3d series elements
5 Inorganic semi-micro qualitative analysis	Student will learn the basic knowledge about the qualitative analysis of inorganic compounds

Unit 1: Co-ordination chemistry**(10)**

- 1.1 Introduction-Definition and formation of co-ordinate covalent bond in $\text{BF}_3 - \text{NH}_3$, $[\text{NH}_4]^+$ and H_2O
- 1.2 Distinguish between double salt and complex salt
- 1.3 Werner's theory-
 - 1.3.1. Postulates
 - 1.3.2. The theory as applied to cobalt amines viz. $\text{CoCl}_3.6\text{NH}_3$, $\text{CoCl}_3.5\text{NH}_3$, $\text{CoCl}_3.4\text{NH}_3$, $\text{CoCl}_3.3\text{NH}_3$
- 1.4 Description of the terms- ligand, co-ordination number, co-ordination sphere, Effective atomic number
- 1.5 IUPAC nomenclature of coordination compounds.
- 1.6 Isomerism in complexes with C.N. 4 and 6
 - 1.6.1 Geometrical Isomerism
 - 1.6.2 Optical Isomerism
 - 1.6.3 Structural Isomerism-Ionisation Isomerism, Hydrate Isomerism, Coordination Isomerism, Linkage Isomerism and Co-ordination position Isomerism
- 1.7 Valance bond theory of transition metal complex with respect to, C.N. 4, complexes of Cu and Ni
C.N. 6 complexes of Fe and Co

Unit 2: Chelation**(05)**

- 2.1 A brief introduction with respect to ligands, chelating agent, chelation and metal chelates.
- 2.2 Structural requirements of chelate formation
- 2.3 Difference between metal chelate and metal complex
- 2.4 Classification of chelating agents (with specific illustration of bidentate chelating agents)
- 2.5 Application of chelation with respect to chelating agents - EDTA and DMG

Unit-3. P- Block elements (Group 13, 14 and 15)

(09)

- 3.1. Position of elements in periodic table
- 3.2. Characteristics of p-block elements with special reference to Electronic configuration and Periodic properties
- 3.3. Compounds of group 13,14 and 15
 - 3.3.1 Boron-Diborane method of preparation and nature of bonding (structure)
 - 3.3.2 Borazine method of preparation and nature of bonding (structure)
 - 3.3.3 Allotropes of carbon and phosphorus
 - 3.3.4 Oxyacids of nitrogen – HNO_2 , HNO_3 .
 - 3.3.5 Hydrides of Nitrogen- NH_3 and N_2H_4

Unit 4: Chemistry of elements of 3d series elements

(06)

- 4.1 Position of elements in periodic table
- 4.2 Characteristics of d-block elements with special reference to
 - i) Electronic structure
 - ii) Oxidation states, stability of oxidation states of Fe with respect to Latimer diagram
 - iii) Magnetic character
 - iv) Colored ions
 - v) Complex formation.

Unit-5. Inorganic semi-micro qualitative analysis

(08)

- 5.1 Theoretical principles involved in qualitative analysis.
- 5.2 Applications of solubility product and common ion effect in separation of cations into groups.
- 5.3 Application of complex formation in
 - a) Separation of II group into IIA and IIB sub-groups.
 - b) Separation of Copper from Cadmium.
 - c) Separation of Cobalt from Nickel.
 - d) Separation of Cl^- , Br^- , I^- .
 - e) Detection of NO_2^- , NO_3^- (Brown ring test).
- 5.4 Application of oxidation and reduction in
 - a) Separation of Cl^- , Br^- , I^- in mixture
 - b) Separation of NO_2^- and NO_3^- in mixture.
- 5.5 Spot test analysis.

Reference Books :

1. Inorganic chemistry, Principles of structure and reactivity by J.E. Huheey and etal
2. Inorganic Chemistry by Shriver and Atkins 5th edition
3. Vogels text book of Qualitative Inorganic analysis by A. I. Vogel .3rd and 6th edition
4. Advanced Inorganic Chemistry by Agrawal Keemtilal (Pragati Prakashan)
5. Theoretical Inorganic chemistry by C.Day & J.Selbin IInd edition
6. Principles of inorganic chemistry by Puri Sharma & Kalia
7. Modern Inorganic chemistry by R.D.Madan (S.Chand)
8. Inorganic Chemistry by J.D.Lee
9. Basic Inorganic Chemistry by F.A.Cotton,G.Wilkilson & B.L.Gaus wiley
10. Chemistry for Degree students by R.L.Madan (S.Chand Publication)

B.Sc.Part II (CBCS) Sem IV

Paper No. DSC- D4 - Chemistry paper No. VIII (Organic Chemistry)

(Theory Credits: 02 : 30 hours, 38 lectures)

Expected learning Outcomes :

Name of the topic	Expected Learning Outcome
Carboxylic acids and their derivatives.	To impart knowledge about the synthesis, reactivity and applications of carboxylic acids.
Amines and Diazonium Salts	Knowledge about classification, preparation and applications of amines and diazonium salts.
Carbohydrates	Understanding the classification, configuration and structure of carbohydrates.
Carbonyl Compounds- Aldehydes and Ketone	Student will be capable of understanding the nomenclature and reactivity of aldehydes and ketones.
Stereochemistry	Student will learn the basic knowledge conformational analysis of organic compounds

Unit 1: Carboxylic acids and their derivatives.

[8L]

1.1 Monocarboxylic acid: Introduction, Methods of Formation from Alcohols, Aldehydes, Ketones, Nitriles and Alkyl benzenes.

Chemical Reaction: Hell-Vohland-Zelinsky (HVZ) reaction.

1.2 Formation of Halo Acids, Mono, Di, Tri- chloro acetic acid.

Substitution reaction of Monochloro acetic acid by Nucleophile OH^- , I^- , CN^- and NH_3

1.3 Hydroxy acids: Malic and Citric acid

Methods of formation of Malic acid from maleic acid, from Alpha bromo succinic acid and moist Ag_2O .

Chemical Reactions: Reactions of Malic acid- Action of heat, oxidation by KMnO_4 and reduction reaction with HI .

Uses of Malic acid

Method of formation of Citric acid from glycerol.

Chemical Reactions: Reaction of citric acid: acetylation by acetic anhydride, reduction by HI , action of heat.

Uses of citric acid.

1.4 Unsaturated acid: Cinnamic acid: method of formation from benzaldehyde using diethyl malonate and by using acetic anhydride and sodium acetate.

Chemical Reactions- Bromination, Oxidation. Uses of cinnamic acid

Acrylic acid: Method of formation from acrolein and by dehydration of beta hydroxy propionic acid.

Chemical Reactions: Addition of water, Reduction by $\text{Na}/\text{C}_2\text{H}_5\text{OH}$. Uses of acrylic acid.

1.5 Dicarboxylic acid: Succinic and phthalic acid

Method of formation of succinic acid from ethylene dibromide, maleic acid

Chemical Reactions: Action of heat, Action of NaHCO_3 , $\text{C}_2\text{H}_5\text{OH}$ in presence of acid.

Uses of succinic acid.

Phthalic acid: Method of formation from o-xylene and Naphthalene

Chemical Reactions: Action of heat, reaction with sodalime, ammonia, uses of phthalic acid.

1.6 Carboxylic acid derivatives: Introduction

Acid halide derivative: Acetyl chloride: formation from acid, by action with PCl_3 and SOCl_2 , reaction with water, alcohol (Mechanism of esterification is expected) and ammonia.

Uses of acetyl chloride.

Acid anhydride derivative: Method of formation of acetic anhydride by dehydration of acetic acid, reactions with water, alcohol and ammonia, uses of acetic anhydride.

Unit 2: Amines and Diazonium Salts:

[8L]

2.1 Introduction, Classification, Nomenclature, structure.

2.2 Methods of preparation: a) From Alkyl halide by Amonolysis, b) By Reduction of Nitriles or Cyanides, c) From Unsubstituted amides (Hoffmann degradation), d) By Gabriel Synthesis (From Phthalamide).

2.3 Reactions: Carbylamine reaction, Schotten-Baumann reaction, Electrophilic substitution (Aniline), Nitration, Bromination, Sulphonation.

2.4 Diazonium salt: Introduction, Preparation of Benzene diazonium chloride.

2.5 Reactions: Replacement by Halogen (Sandmeyer), Replacement by Iodine, Replacement by $-\text{OH}$, C and N Coupling reactions: Synthesis of Methyl orange and Congo red. Reduction of BDC.

Unit 3: Carbohydrates

[8L]

Classification of carbohydrates, reducing and non-reducing sugars, General properties of glucose and fructose, their open chain structure. Epimers, mutarotation and anomers.

Determination of configuration of Glucose (Fischer proof). Ring structure of glucose Determination of size of the ring of Glucose by methylation method.. Haworth projections. Cyclic structure of fructose. Linkage between monosaccharides, structure of disaccharides (sucrose, maltose, lactose) and polysaccharides (starch and cellulose) excluding their structure elucidation.

Unit 4: Carbonyl Compounds- Aldehydes and Ketone

[6L]

4.1 Introduction, Nomenclature, structure.

4.2 Reactivity of Carbonyl group, mechanism of Nucleophilic addition to Carbonyl group

4.3 Reactions: mechanism and application of Aldol condensation, Perkin reaction, Cannizzaro's reaction, Knoevenagel condensation, Reformatsky reaction.

Unit 5: Stereochemistry

[8L]

5.1 Conformational isomerism – Introduction.

5.2 Representation of conformations of ethane by using Saw- Horse, Fischer (dotted line wedge) and Newmann's projection formulae.

5.3 Conformations and conformational analysis of ethane and n-butane by Newmann's Projection formula with the help of energy profile diagrams.

5.4 Cycloalkanes relative stability - Baeyer's strain theory, Theory of strainless rings.

5.5 Conformations and stability of cyclohexane and monosubstituted cyclohexanes Cyclohexanol, bromocyclohexane and methyl cyclohexane.

5.6 Locking of conformation in t-butyl cyclohexane.

Reference Books:

1. Morrison, R. T. & Boyd, R. N. *Organic Chemistry*, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

2. Stereochemistry conformation & Mechanism, 9th Edition, By P.S. Kalasi, Publisher: New Age International, 2017

3. Stereochemistry of carbon compounds by Eliel.

4. Stereochemistry of Organic Compounds by D. Nasipuri.

5. Finar, I. L. *Organic Chemistry (Volume 1)*, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

6. Finar, I. L. *Organic Chemistry (Volume 2)*, Dorling Kindersley (India) Pvt. Ltd.

7. Organic Chemistry. Volume I, II, III by S.M. Mukharjee, S.P. Singh and R.P. Kapoor. Wiley Eastern Limited (New Age International)

8. Advanced Organic Chemistry by, B.S. Bahl, Arun Bahl. S. Chand & Company, Ltd.

9. Chemistry by R.L. Madan, S. Chand and Company Ltd.

B. Sc II Practical Course
Total Marks 100
(Credits: 04)

Inorganic Chemistry (Marks 35)

1) Gravimetric Analysis (Any two)

- i) Gravimetric estimation of iron as Fe_2O_3 from a solution containing Ferrous ammonium sulphate and free sulphuric acid.
- ii) Gravimetric estimation of barium as BaSO_4 from a solution containing barium chloride and free hydrochloric acid.
- iii) Gravimetric estimation of nickel as $\text{Ni}(\text{DMG})_2$ from a solution containing $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ and free sulphuric acid
- IV) Gravimetric estimation of aluminium as Aluminium oxinate from a solution containing aluminium sulphate or potash alum and free sulphuric acid.

2) Inorganic Preparations (Any two)

- i) Preparations of sodium cuprous thiosulphate
- ii) Preparation of tris (ethylene diamine) nickel (II) thiosulphate
- iii) Preparation of hexammine nickel (II) chloride

3) Titrimetric Analysis (Any four)

(Calibration of burette, pipette and volumetric flask is essential)

- i) Fertilizer analysis : To determine percentage of nitrogen in the given sample of a nitrogenous fertilizer (ammonium sulphate). Known weight of the sample to be taken by the student. For preparing its solution which is to be refluxed with known excess of alkali. Standard HCl solution to be supplied.
- ii) Analysis of Synthetic /Commercial Sample : To estimate Magnesium from talcum powder.
- iii) Determination of total hardness of water using 0.01M EDTA solution.
(Students should standardize the given EDTA solution by preparing 0.01M CaCl_2 solution. using CaCO_3 salt.)
- iv) Determination of alkali content from antacid tablet using HCl solution .
- v) Vinegar Analysis : To estimate amount of acetic acid from vinegar sample
- Vi) Estimation of Calcium from chalk : To estimate amount of calcium from the chalk by titrimetric method. (By redox titration using KMnO_4 solution)
(Note : These experiments are performed by preparing calibrated sets of burettes, pipettes and volumetric flasks.)

4) Semi-micro qualitative analysis

Analysis of binary mixtures with non interfering cations and anions (at least 6 mixtures to be analyzed)

i) Following anions are to be given :

Cl^- , Br^- , I^- , NO_3^- , CO_3^{2-} , SO_4^{2-} , S^{2-} , BO_3^{3-} (insoluble CO_3^{2-} , S^{2-} , BO_3^{3-} may be given)

ii) Following cations are to be given :

Cu^{+2} , Cd^{2+}
 Al^{+3} , Fe^{+3} , Cr^{+3} .
 Zn^{+2} , Mn^{+2} , Ni^{+2} , Co^{+2} .
 Ca^{+2} , Ba^{+2} .
 Mg^{+2} .
 NH_4^+ , K^+

Note:-Use of spot tests to be made whenever possible.

Reference Books:

1. Vogel's text book of Qualitative Inorganic analysis by A. I. Vogel .3rd and 6th edition
2. Vogel's text book of Quantitative Inorganic Chemistry by A. I. Vogel.
3. Physical Chemistry of Inorganic qualitative analysis by Kuricose & Rajaram.
4. Practical manual in water Analysis by Goyal & Trivedi.

5. Basic Concepts in Analytical Chemistry by S. M. Khopkar. Wiley Eastern Ltd.
6. Practical Chemistry, Physical , Inorganic , Organic and Viva voce by Balwant Rai Satija. Allied Publishers Private Limited.
7. College Practical Chemisty by H. N. Patel, S. R. Jakali, H. P. Subhedar, Miss. S. P. Turakhia. Himalaya Publishing House, Mumbai.
8. College Practical Chemistry by Patel, Jakali, Mohandas, Israney, Turakhia.

Organic Chemistry Practical's (Marks 30)

A) Organic Qualitative Analysis

Identification of at least **Eight** Organic compounds with reactions including two from acids, two from phenols, two from bases and two from neutrals.

Acids – Succinic acid, Phthalic acid, Salicylic acid, Aspirin.

Phenols – Alpha-Naphthol, o-nitrophenol, p-nitrophenol.

Bases – o-,m- and p-nitroanilines, Diphenyl amine.

Neutrals – Urea, Acetanilide, Carbon tetrachloride, Bromobenzene, Methyl acetate, Nitrobenzene, Naphthalene, Anthracene, Acetophenone, Ethyl methyl ketone.

Note : A systematic study of an organic substance involves reactions in the determination of elements and functional group.

B) Organic Quantitative Analysis

I) Estimations

- 1) Estimation of ester.
- 2) Estimation of acetone.
- 3) Estimation of vitamin C.

II) Organic preparations

- 1) p-nitro acetanilide from acetanilide.
- 2) Acetanilide from aniline using anhydrous ZnCl_2 and Zn dust.
- 3) Phthalimide from phthalic anhydride.
- 4) Benzoic acid from benzamide.

iii) **Demonstration of Thin layer chromatography.** Separation, identification and determination of R_f values

Reference Books :

1. Practical Organic Chemistry by A.I. Vogel.
2. Hand book of Organic qualitative analysis by H.T. Clarke.
3. A Laboratory Hand Book of Organic qualitative analysis and separation by V.S. Kulkarni. Dastane Ramchandra& Co.
4. Practical Organic Chemistry by F.G. Mann and B.C. Saunders. Low – priced Text Book. ELBS. Longman
5. Advanced Practical Organic Chemistry by N.K. Vishnoi. Vikas Publishing House Private Limited.
6. Advanced practical chemistry by J. Singh, L. D. S. Yadav, R. K. P. singh, I. R. Siddiqui et.al, Pragati prakashan.

Practicals Physical chemistry (Marks 25 + Journal 10)

- 1) To study the hydrolysis of methyl acetate in presence of HCl and H_2SO_4 and to determine the relative strength of acids.
- 2) To study the effect of acid strength on hydrolysis of an ester by using 0.5M HCl and 0.25M HCl.
- 3) To study the reaction between potassium persulphate and potassium iodide in solution with equal concentration of the reactants.
- 4) To study the reaction between potassium persulphate and potassium iodide in solution with unequal concentration of the reactants.
- 5) To determine the degree of dissociation and dissociation constant of acetic acid at various dilutions and to verify Ostwald's dilution law conductmetrically.
- 6) To determine the normality of the given strong acid by titrating it against the strong alkali conduct metrically.
- 7) To determine the normality of the given weak acid by titrating it against the strong alkali conductometrically.
- 8) To determine the percentage composition of a given liquid mixture by viscosity method (Density data to be given).

- 9) To determine the specific and molar refractions of benzene, toluene and xylene by Abbe's Refractometer and to determine the refraction of CH₂ Group (Methylene group) (Densities should be determined by students).
- 10) To determine the specific rotation and unknown concentration of sugar solution.

Reference Books: -

- 1) Mendham, J.Vogel's Quantitative Chemical Analysis, Pearson 2009.
- 2) Khosla,B.D.; Garg, V.C. &Gulati, A. Senior Practical Physical Chemistry, R. Chand & Co: New Delhi (2011).
- 3) Findlay' Practical Physical Chemistry (Longmann) 2015.
- 4) Practical Physical Chemistry: Gurtu (S. Chand) 2014.
- 5) Systematic Experimental Physical Chemistry: Rajbhoj, Chandekar (Anajali Publication) 2016.
- 6) Advanced Practical Physical Chemistry: J.B.Yadav (Goel Publishing House) 2015.

**B.Sc. II Revised Syllabus 2018-19
Sem.III & IV Nature of Question paper
Total Marks 50**

- | | |
|---|-----------|
| Q.1 a. Answer the following in one sentence. | 5 |
| i)
ii)
iii)
IV)
V) | |
| b. Choose the correct alternative and rewrite the sentence again | 5 |
| I)
II)
III)
IV)
V) | |
| Q.2. Attempt any TWO of the following (Out of FOUR) | 20 |
| a)
b)
c)
d) | |
| Q.3. Answer any FOUR of the following (Out of SIX) | 20 |
| a)
b)
c)
d) | |

e)
f)

Shivaji University, Kolhapur

B.O.S. in Chemistry

B.Sc. Part – III

Semester CBCS Syllabus

To be implemented from June - 2020

INTRODUCTION

This syllabus is prepared to give the sound knowledge and understanding of chemistry to undergraduate students at last year of the B.Sc. degree course. The goal of the syllabus is to make the study of chemistry as stimulating, interesting and relevant as possible. The syllabus is prepared by keeping in mind the aim to make students capable of studying chemistry in academic and industrial courses and to expose the students, to develop interest in them in various fields of chemistry. The new and updated syllabus is based on disciplinary approach with vigour and depth taking care the syllabus is not heavy at the same time it is comparable to the syllabi of other universities at the same level. The syllabus is prepared after discussions of number of faculty members of the subject and by considering the existing syllabi of B.Sc. Part-I, II & III, new syllabi of XIth & XIIth standards, syllabi of NET and SET exams. U.G.C. model curriculum, syllabi of different entrance examination and syllabi of other Universities.

The units of the syllabus are well defined and the scope is given in detail. The periods required for units are given. The lists of reference books are given in detail.

OBJECTIVES

1. To promote understanding of basic facts and concepts in Chemistry while retaining the excitement of Chemistry
2. To make students capable of studying Chemistry in academic and Industrial courses and to expose the students to different processes used in Industries and their applications.
3. To expose the students to various emerging new areas of Chemistry and apprise them with their prevalent in their future studies and their applications in various spheres of chemical sciences.
4. To develop problem solving skills in students.
5. To developed ability and to acquire the knowledge of terms, facts, concepts, processes, techniques and principles of subjects.
6. To develop ability to apply the knowledge of contents of principles of chemistry.
7. To inquire of new knowledge of chemistry and developments therein.
8. To expose and to develop interest in the fields of chemistry
9. To develop proper aptitude towards the subjects
10. To develop the power of appreciations, the achievements in Chemistry and role in nature and society.
11. To develop skills required in chemistry such as the proper handling of apparatus and chemicals

Shivaji University, Kolhapur
B.O.S. in Chemistry
B.Sc. Part – III
Semester CBCS Syllabus
To be implemented from June – 2020

Equivalence

Sr. No.	Title of old paper (Syllabus implemented from June-2015)	Title of new paper (To be implemented from June-2020)
1	Paper – IX & XIII Physical Chemistry	Paper IX DSE-E5 and XIII DSE-F5 Inorganic Chemistry
2	Paper – X & XIV: Inorganic Chemistry	Paper- X DSE-E6 and XIV DSE-F6 Organic Chemistry
3	Paper-XI & XV: Organic Chemistry	Paper XI DSE-E7 and XV- DSE-F7 Physical Chemistry
4	Paper-XII & XVI: Analytical & Industrial Chemistry	Paper XII-DSE-E8 and XVI DSE-F8: Analytical & Industrial Chemistry

A repeater candidate, if any, will be allowed to appear for practical examination as per old course up to March / April 2021 examination.

List of Laboratory Equipments

Apparatus & Equipments

1. Digital balance with 1 mg accuracy
2. Conductometer
3. Potentiometer
4. pH Meter
5. Polarimeter
6. Colorimeter
7. Thermostat
8. Electric Oven
9. Suction Pump
10. Crucible Heater
11. IR Lamp
12. Magnetic stirrer
13. Buckner funnel
14. Water bath / Thermostat.
15. Platinum electrode
16. Glass electrode
17. Silver, Zinc, Copper electrodes
18. Conductivity cell
19. Distilled water plant.
20. Refractometer
21. Freeze
22. Deep Freeze
23. H₂S Apparatus
24. Muffle Furnace
25. Magnetic Stirrer

Glassware & Porcelain ware:

1. Burette (25/50 ml)

2. Micro burette (10 ml)
3. Pipette (5 ml, 10 ml, 25 ml)
4. Graduated Pipette (1/2/5/10 ml)
5. Conical flask (100 ml, 250 ml)
6. Beakers (100 ml, 250 ml, 500 ml)
7. Volumetric flask (25 ml, 50 ml, 100 ml, 250 ml)
8. Gooch Crucible / Sintered glass Crucible
9. Silica Crucible
10. Watch glass
11. Glass tubing
12. Glass Funnel (3")
13. Gas jar
14. Glass rod
15. Test Tubes (12 x 100, 5 x 5 x 8)
16. Evaporating dish
17. TLC Unit
18. Measuring cylinder
19. Thiele's tubes
20. Fusion Tube
21. Capillary tube
22. Stopper bottle
23. Thermometer (1/10°, 360°)
24. Water condenser
25. Distillation flask (100 ml/ 250 ml)
26. Titration tiles.
27. Asbestos sheet.
28. Desiccators
29. Clay pipe triangle

Iron & Wooden ware:

1. Burners
2. Tripod stand

3. Iron stand
4. wire gauze
5. Burette stand
6. Test tube stand
7. Pair of tongs
8. Test tube holder
9. Spatula
10. Copper foil

Chemicals: All the chemicals required for experiments are mentioned in the syllabus.

Others:

1. Filter papers (Kalpi)
2. Whatman Filter paper No. 1, 40, 41 and 42.

Lab Safety Precautions / Measures in Chemistry Laboratory:

Part-I: Personal Precautions

1. All personnel must wear safety Goggles at all times.
2. Must wear the Lab. Aprons / Lab jacket and proper shoes.
3. Except in emergency, an over-hurried activity is forbidden.
4. Fume cupboard must be used whenever necessary.
5. Eating, Drinking and Smoking in the laboratories strictly forbidden.

Part-II: Use of safety and Emergency Equipments –

1. First aid kits.
2. Sand Bucket.
3. Fire extinguishers (dry chemical and carbon dioxide extinguisher).
4. Chemical storage cabinet with proper ventilation.
5. Material safety data sheets
6. Management of local exhaust system and fume hoods.
7. Sign in register if using instruments.

Nature of Theory Question Papers

N.B. The question paper should cover the entire syllabus. Marks allotted to questions should be in proportion to the lectures allotted to respective units.

Papers Semester V: IX-DSE-E5, X-DSE-E6, XI- DSE-E7, XII- DSE-E8,

Semester VI: XIII- DSE-F5, XIV-DSE-F6, XV-DSE-F7 and XVI- DSE-F8

Total Marks 40

Question No.	Details	Marks	Marks of Options
1.	Answer in one sentence (One mark for each question).	4	-
	Multiple choice questions (One mark for each question)	4	-
2.	Long answer type questions (2 out of 3)	20	10
3.	Short answer type questions (3out of 5)	12	08
	Total	40	18

SHIVAJI UNIVERSITY, KOLHAPUR
B.O.S. in Chemistry
B.Sc. Part – III
Semester CBCS Syllabus
To be implemented from June – 2020

General Structure

Theory Examination:

There will be four theory papers of 40 marks each for each semester. Their titles and distribution of marks are as follows.

Semester V : Papers IX-DSE-E5, X-DSE-E6, XI- DSE-E7, XII- DSE-E8,

Semester VI: Papers XIII- DSE-F5, XIV-DSE-F6, XV-DSE-F7 and XVI- DSE-F8

Paper – **IX** DSE-E5, & **XIII** DSE-F5: Inorganic Chemistry – 40 marks

Paper – **X** DSE-E6 & **XIV** DSE-F6: Organic Chemistry – 40 marks

Paper – **XI** DSE-E7 & **XV** DSE-F7: Physical Chemistry – 40 marks

Paper – **XII** DSE-E8 & **XVI** DSE-F8: Analytical and Industrial Chemistry – 40 marks

The duration of each theory paper for examination will be of 2 hours

Internal examination (Oral/Seminar/test/home assignment) will be conducted for 10 marks for each paper.

Practical Examination:

Practical examination will be of 200 marks. The distribution of marks will be as follows:

1. Physical Section : 60 marks
2. Inorganic Section : 65 marks
3. Organic Section : 60 marks
4. Project : 15 marks

Total: 200 marks

The duration of practical examination will be of three days – six and half hours per day.

CHEMISTRY
Semester Syllabus for B.Sc.-III

Theory

1. N. B. Figures shown in bracket indicate the total lectures required for the respective topics.
 2. The question paper should cover the entire syllabus. Marks allotted to questions should be in proportion to the lectures allotted to respective topics.
 3. All topics should be dealt with S.I. units.
 4. Study tour/industrial visit/visit to national institute or research laboratory is prescribed.
 5. Use of recent editions of reference books is essential.
 6. Use of scientific calculator is allowed.
 7. **Values required for spectral problems should be provided in the question paper.**
-

B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E5, Chemistry Paper No. –IX
(Inorganic Chemistry)
(Theory Credits: 02, 30 hours, 37 lectures)

Expected Learning Outcomes:

Name of the topic	Expected Learning Outcome
1. Acids bases and Non-aqueous solvents	Useful for the study of role of acids and bases in Chemistry. The study of non –aqueous solvents is important to learn all chemical properties of solutes and from the research point of view.
2. Metal ligand bonding in transition metal complexes	Useful to understand geometry, stability and nature of bonding between metal ion and ligand in complexes.
3. Metals, semiconductors and Superconductors	The topic deals with the synthesis and the applications of the semiconductors and Superconductors in electrical and electronic devices.
4. Organometallic compounds	The structure, method of preparation and the applications of organo metallic compound in various fields are explained.
5. Catalysis	The classification, types, mechanism and applications of catalyst in industrial fields is explained.

Unit 1. Acids, Bases and Non aqueous Solvents

[8]

1.1 Introduction to theories of Acids and Bases-Arrhenius concept, Bronsted-Lowry concept, Lewis Concept, Lux-Flood Concept (definition and examples)

1.2 Hard and Soft Acids and Bases. (HSAB Concept)

1.2.1 Classification of acids and bases as hard, soft and borderline.

1.2.2 Pearson's HSAB concept.

1.2.3 Acid–Base strength and hardness-softness.

1.2.4 Applications and limitations of HSAB principle.

1.3 Chemistry of Non aqueous Solvents.

1.3.1 Introduction, definition and characteristics of solvents.

1.3.2 Classification of solvents.

1.3.3 Physical properties and Acid-Base reactions in Liquid Ammonia (NH₃) and Liquid Sulphur Dioxide (SO₂).

Unit 2. Metal Ligand bonding in Transition Metal Complexes

[10]

2.1 Crystal field theory (CFT)

2.1.1 Introduction: Shapes of d-orbitals, Basic assumptions of CFT.

2.1.2 Crystal field splitting of d-orbitals of metal ion in octahedral, tetrahedral, square planar complexes and John-Teller distortion.

2.1.3 Factors affecting the Crystal field splitting.

2.1.4 High spin and low spin octahedral complexes w.r.t. Co (II).

2.1.5 Crystal Field stabilization energy (CFSE), Calculation with respect to octahedral complexes only.

2.1.6 Limitations of CFT.

2.2 Molecular orbital theory (MOT).

2.2.1 Introduction.

2.2.2 MOT of octahedral complexes with sigma bonding such as $[\text{Ti}(\text{H}_2\text{O})_6]^{3+}$, $[\text{CoF}_6]^{3-}$, $[\text{Co}(\text{NH}_3)_6]^{3+}$.

2.2.3 Merits and demerits of MOT.

Unit 3. Metals, Semiconductors and Superconductors.

[9]

3.1 Introduction.

3.2 Properties of metallic solids.

3.3 Theories of bonding in metal.

i. Free electron theory.

ii. Molecular orbital theory (Band theory).

3.4 Classification of solids as conductor, insulators and semiconductors on the basis of band theory.

3.5 Semiconductors- Types - intrinsic and extrinsic and applications of semiconductors.

3.6 Superconductors: Ceramic superconductors - Preparation and structures of mixed oxide $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$.

3.7 Applications of superconductors.

Unit.4. Organometallic Chemistry.

[4]

- 4.1 Definition, Nomenclature of organometallic compounds.
- 4.2 Synthesis and structural study of alkyl and aryl compounds of Be and Al.
- 4.3 Mononuclear carbonyls -Nature of bonding in simple mononuclear carbonyls.: $[\text{Ni}(\text{CO})_4]$, $[\text{Fe}(\text{CO})_5]$, $[\text{Cr}(\text{CO})_6]$.

Unit 5. Catalysis

[5]

- 5.1 Introduction
- 5.2 Classification of catalytic reaction- Homogenous and Heterogeneous
- 5.3 Types of Catalysis.
- 5.4 Characteristics of catalytic reactions.
- 5.5 Mechanism of catalysis.
 - i. Intermediate compound formation theory.
 - ii. Adsorption theory.
- 5.6 Industrial applications of catalysis.

Reference Books:

1. Concise Inorganic Chemistry (ELBS, 5th Edition) – J. D. Lee.
2. Inorganic Chemistry (ELBS, 3rd Edition) D. F. Shriver, P. W. Atkins, C. H. Langford, Oxford University Press, 2nd Edition.
3. Basic Inorganic Chemistry : Cotton and Wilkinson.
4. Advanced Inorganic Chemistry (4th Edn.) Cotton and Wilkinson.
5. Concepts and Models of Inorganic Chemistry : Douglas and Mc. Daniel. 3rd Edition. John Wiley publication.
6. Structural principles in inorganic compounds. W. E. Addison.
7. Theoretical principles of Inorganic Chemistry – G. S. Manku.
8. Theoretical Inorganic Chemistry by Day and Selbine.
9. Co-ordination compounds. SFA Kettle.
10. Essentials of Nuclear Chemistry by H. J. Arnikar.
11. Nuclear Chemistry by M. N. Sastri.
12. Organometallic Chemistry by R. C. Mahrotra, A. Sing, Wiley Eastern Ltd. New Delhi.
13. Inorganic Chemistry by A. G. Sharpe, Addison – Wesley Longman – Inc.

14. Principles of Inorganic Chemistry by Puri, Sharma and Kalia, Vallabh Publication. Pitampur Delhi.
15. Text book of Inorganic Chemistry by K. N. Upadhyaya Vikas Publishing House – New Delhi.
16. Inorganic Chemistry 3rd Edn G. L. Miessler and D.A. Tarr, pearson publication.
17. Co-ordination compounds by Baselo and Pearson.
18. UGC Inorganic chemistry by H.C. Khera, Pragati prakashan
19. UGC Advanced Inorganic Chemistry by Agarwal and Keemtilal, Pragati Prakashan

B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E6 Chemistry Paper No. X
(Organic Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1. Introduction to Spectroscopy	Understanding of energy associated with electromagnetic radiation and its use in analytical technique.
2.UV-Vis Spectroscopy	Knowledge of chromophore, auxochrome and calculation of λ_{max} .
3. IR Spectroscopy	Knowledge of vibrational transitions, regions of IR spectrum, functional group recognition.
4.NMR Spectroscopy	Understanding of magnetic-non magnetic nuclei, shielding-deshielding, chemical shift, splitting pattern
5. Mass spectroscopy.	Knowledge of molecular ion, fragmentation pattern and different types of ions produced.
6. Combined Problems based on UV-Vis, IR, NMR and Mass Spectral data	Student will predict the structure of organic compound with the help of provided spectral data.

Unit 1. Introduction to Spectroscopy

[03]

- 1.1 Meaning of spectroscopy.
- 1.2 Nature of electromagnetic radiation: wavelength, frequency, energy, amplitude, wave number and their relationship.
- 1.3 Different units of measurement of wavelength and frequency.
- 1.4 Different regions of electromagnetic radiations.
- 1.5 Interaction of radiation with matter: absorption, emission, fluorescence and scattering.
- 1.6 Types of spectroscopy and advantages of spectroscopic methods.
- 1.7 Energy types and energy levels of atoms and molecules.

Unit 2. UV-Vis Spectroscopy

[05]

- 2.1 Introduction.
- 2.2 Beer-Lambert's law, absorption of UV radiation by organic molecules leading to different excitations.
- 2.3 Terms used in UV Spectroscopy: Chromophore, Auxochrome, Bathochromic shift, hypsochromic shift, hyperchromic and hypochromic effect.
- 2.4 Modes of electromagnetic transitions.
- 2.5 Effect of conjugation on position of UV band.
- 2.6 Calculation of λ_{max} by Woodward and Fischer rules for dienes and enones.
- 2.7 Colour and visible spectrum.
- 2.8 Applications of UV Spectroscopy.

Unit 3. IR Spectroscopy

[06]

- 3.1 Introduction.
- 3.2 Principles of IR Spectroscopy.
- 3.3 Instrumentation, schematic diagram.
- 3.4 Fundamental modes of vibrations, types and calculation.
- 3.5 Conditions for absorption of IR radiations.
- 3.6 Regions of IR spectrum, fundamental group region, finger print region.
- 3.7 Hook's Law for Calculation of vibrational frequency.
- 3.8 Factors affecting IR absorption frequency.

- 3.9 Characteristic of IR absorption of following functional groups a) alkanes, alkenes, alkynes b) alcohol and phenols c) ethers d) carbonyl compounds e) amines f) nitro compounds and g) aromatic compounds.

Unit 4. NMR Spectroscopy

[09]

- 4.1 Introduction.
- 4.2 Principles of PMR Spectroscopy.
- 4.3 NMR- Instrumentation, Schematic diagram.
- 4.4 Magnetic and nonmagnetic nuclei.
- 4.5 Chemical shift: definition, measurement, calculation, Factors affecting Chemical shift.
- 4.6 Shielding & deshielding.
- 4.7 Peak Integration.
- 4.8 Merits of TMS as PMR reference compound.
- 4.9 Coupling Constant.
- 4.10 Types of Coupling Constant.
- 4.11 Spin-spin splitting (n+1 rule).
- 4.12 Applications.

Unit 5. Mass Spectroscopy.

[08]

- 5.1 Introduction.
- 5.2 Principles of mass spectroscopy.
- 5.3 Mass spectrometer - schematic diagram.
- 5.4 Types of ions produced during fragmentation.
- 5.5 Nitrogen rule
- 5.6 Fragmentation patterns of: alkanes, alkenes, aromatic hydrocarbons, alcohols, phenols, amines and carbonyl compounds.
- 5.7 McLafferty rearrangement.
- 5.8 Applications.

Unit 6. Combined Problems based on UV, IR, NMR and Mass Spectral data.

[07]

Reference Books: (Use recent editions)

1. Absorption Spectroscopy of Organic Molecules by V.M.Parikh.
2. Spectroscopy of Organic compounds by P. S. Kalsi.
3. Elementary Organic Absorption Spectroscopy by Y. R. Sharma.
4. Instrumental Methods of Analysis (7th edition) by Willard, Merritt, Dean, Settle.
5. Spectroscopy by G. R. Chatwal and S. K. Anand
6. Spectroscopy by Pavia, Lampman, Kriz, Vyvyan
7. Organic Spectroscopy (2nd edition) by Jag Mohan
8. Organic Spectroscopy (3rd edition) by William Kemp
9. Instrumental Methods of Chemical Analysis by H. Kaur

B.Sc.-III (CBCS) SEMESTER V
Paper No. DSE- E7 Chemistry Paper No. XI
(Physical Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the Topics	Expected Learning Outcome
1. Elementary quantum mechanics	Learning and understanding quantum Chemistry, Heisenberg's uncertainty principle, concept of energy operators (Hamiltonian), learning of Schrodinger wave equation. Physical interpretation of the ψ and ψ^2 . Particle in a one dimensional box
2. Spectroscopy	Knowledge about spectroscopy, Electromagnetic spectrum, Energy level diagram, Study of rotational spectra of diatomic molecules: Rigid rotor model, Microwave oven, vibrational spectra of diatomic molecules, simple Harmonic oscillator model, Raman spectra: Concept of polarizability, pure rotational and pure Vibrational Raman spectra of diatomic molecules, related knowledge will be gained by the students.
3. Photochemistry	Learning and understanding photochemical laws, reactions and various photochemical phenomena.
4. Solution	Learning the various types of solutions, relations vapour pressure, temperature relations.
5. Electromotive force	Learning and understanding the knowledge of emf measurements, types of electrodes, different types of cells, various applications of emf measurements.

Unit 1. Elementary quantum mechanics

[08]

- 1.1 Introduction.
- 1.2 Drawbacks of classical mechanics, Black body radiation, Photoelectric effect, Compton effect, Dual nature of matter and energy: De Broglie hypothesis.
- 1.3 The Heisenberg's uncertainty principle.
- 1.4 Concept of energy operators (Hamiltonian).
- 1.5 Derivation of Schrodinger wave equation, well behaved function.
- 1.6 Physical interpretation of the ψ and ψ^2 .
- 1.7 Particle in a one dimensional box.
- 1.8 Numerical problems.

Unit 2. Spectroscopy

[08]

- 2.1 Introduction.
- 2.2 Electromagnetic radiation.
- 2.3 Interaction of radiation with matter, Electromagnetic spectrum, Energy level diagram.
- 2.4 Rotational spectra of diatomic molecules: Rigid rotor model, moment of inertia, energy levels of rigid rotor, selection rules, Intensity of spectral lines, determination of bond length, isotope effect, Microwave oven
- 2.5 Vibrational spectra of diatomic molecules: Simple Harmonic oscillator model, Vibrational energies of diatomic molecules, Determination of force constant, overtones.
- 2.6 Raman spectra: Concept of polarizability, pure rotational and pure Vibrational Raman spectra of diatomic molecules, selection rules.
- 2.7 Comparative study of IR and Raman spectra, rule of mutual exclusion- CO_2 molecule.
- 2.8 Numerical problems.

Unit 3. Photochemistry

[06]

- 3.1 Introduction, Difference between thermal and photochemical processes.
- 3.2 Laws of photochemistry: i) Grotthus - Draper law ii) Lambert law iii) Lambert – Beer's law (with derivation) iv) Stark-Einstein law.

- 3.3 Quantum yield, Reasons for high and low quantum yield.
- 3.4 Factors affecting Quantum yield.
- 3.5 Photosensitized reactions – Dissociation of H_2 , Photosynthesis.
- 3.6 Photodimerisation of anthracene, decomposition of HI and HBr.
- 3.7 Jablonski diagram depicting various processes occurring in the excited state:
Qualitative description of fluorescence and phosphorescence.
- 3.8 Chemiluminescence, Electroluminescence and Bioluminescence.
- 3.9 Numerical problems.

Unit 4. Solutions

[06]

- 4.1 Introduction.
- 4.2 Ideal solutions, Raoult's law, Vapour pressure of ideal and non ideal solutions of miscible liquids.
- 4.3 Composition of liquid and vapour, vapour pressure and boiling point diagrams of miscible liquids. Distillation of miscible liquid pairs.
Type I : Systems with intermediate total vapour pressure (i.e. System in which b.p. increases regularly – Zeotropic).
Type II : Systems with a maximum in the total vapour pressure (i.e. System with a b.p. minimum – Azeotropic).
Type III : Systems with a minimum in the total vapour pressure (i.e. System with a b.p. Maximum – Azeotropic).
- 4.4 Solubility of partially miscible liquids.
 - i. Maximum solution temperature type: Phenol – water system.
 - ii. Minimum solution temperature type: Triethyl amine – water system.
 - iii. Maximum and minimum solution temperature type: Nicotine – water system.
 Distillation of partially miscible liquid pairs.
- 4.5 Vapour pressure and distillation of immiscible liquids, steam distillation.

Unit 5. Electromotive force

[10]

(Convention: Reduction potentials to be used)

- 5.1 Introduction
- 5.2 Thermodynamics of electrode potentials, Nernst equation for electrode and cell potentials in terms of activities.
- 5.3 E.M.F. series.
- 5.4 Types of electrodes: Description in terms of construction, representation, half cell reaction and emf equation for
 - i) Metal – metal ion electrode.
 - ii) Amalgam electrode.
 - iii) Metal – insoluble salt electrode.
 - iv) Gas – electrode.
 - v) Oxidation – Reduction electrode.
- 5.5 Reversible and Irreversible cells.
 - i. Chemical cells without transference.
 - ii. Concentration cells with and without transference.
 - iii. Liquid – Liquid junction potential: Origin, elimination and determination.
- 5.6 Equilibrium constant from cell emf, Determination of the thermodynamic parameters such as ΔG , ΔH and ΔS .
- 5.7 Applications of emf measurements :
 - i. Determination of pH of solution using Hydrogen electrode.
 - ii. Solubility and solubility product of sparingly soluble salts (based on concentration cells).
- 5.8 Numerical problems.

Reference Books:

1. Physical Chemistry by G. M. Barrow, International student Edition, Mc Graw Hill.
2. University General Chemistry by C.N.R. Rao, Macmillan.
3. Physical Chemistry by, R. A. Alberty, Wiley Eastern Ltd.
4. The Elements of Physical Chemistry by P. W. Atkins, Oxford.
5. Principles of Physical Chemistry by S. H. Maron, C. H. Prutton, 4th Edition.

6. Nuclear and Radiochemistry by Friedlander, Kennedy and Miller, John Wiley and Sons.
Wiley International edition.
7. Essentials of Nuclear Chemistry by H. J. Arnikar, 4th edition. Wiley Eastern.
8. Principles of Physical Chemistry by Puri, Sharma, Pathania, Shobhanlal Naginchand and Company, Jalandar.
9. Instrumental methods of chemical analysis by Chatwal and Anand, 5th Edition, Himalaya Publication.
10. Fundamentals of molecular spectroscopy by C. N. Banwell – Tata Mc Graw-Hill.
11. Quantum Chemistry including molecular spectroscopy by B. K. Sen, Tata Mc Graw -Hill.
12. Text Book of Physical Chemistry by S. Glasstone, Macmillan India Ltd.
13. Elements of Physical Chemistry by D. Lewis and S. Glasstone (Macmillan).
14. Principles of Physical Chemistry by Maron and Lando (Amerind).
15. Electrochemistry by S. Glasstone.
16. Physical Chemistry by W. J. Moore.
17. Basic Chemical Thermodynamics by V. V. Rao (Macmillan).
18. Essential of Physical Chemistry, Bahl and Tuli (S. Chand).
19. Text Book of Physical Chemistry, Soni and Dharmarha.
20. Advanced Physical Chemistry Gurdeep Raj GOEL Publishing House, 36th Edition

B.Sc. Part III (CBCS) SEMESTER-V
Paper No. DSE-E8 Chemistry paper No. XII
(Analytical Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1.Theory of Gravimetric Analysis	Learning and understanding the techniques of gravimetric analysis.
2.Flame Photometry	Knowledge of instrumental analysis of alkali and alkaline earth elements.
3.Colorimetry and Spectrophotometry	Understanding, working and applications of optical methods as an analytical tool.
4.Potentiometric titrations	Understanding theory and applications of potentiometric titrations.
5.Chromatographic techniques and Quality control	Understanding the basics of ion exchange and column adsorption chromatography, Quality control practices in analytical industries / laboratories.

Unit 1. Theory of Gravimetric Analysis

[08]

- 1.1 Introduction.
- 1.2 Gravimetric analysis by precipitation: nucleation, crystal growth, digestion/ageing, filtration, drying, ignition, weighing.
- 1.3 Optimum conditions for good precipitation.
- 1.4 Physical nature of precipitate.
- 1.5 Purity of precipitate: co-precipitation, post-precipitation.
- 1.6 Organic precipitants and their applications.

Unit 2. Flame Photometry

[06]

- 2.1 Introduction.
- 2.2 General principles of flame photometry.
- 2.3 Instrumentation: Block diagram, Burners (Premix and Lundergraph burners), mirror, slits, filters, detector (Photomultiplier tube).
- 2.4 Effect of solvent in flame photometry.

- 2.5 Experimental procedure of analysis (Standard addition and internal standard).
- 2.6 Interferences and Factors that influence the intensity of emitted radiation in a flame photometer.
- 2.7 Applications of flame photometry in real sample analysis.
- 2.8 Limitations of flame photometry.

Unit 3. Colorimetry and Spectrophotometry

[06]

- 3.1 Theory of colorimetry and spectrophotometry.
- 3.2 Lambert Beer's law, deviation from Beer's law.
- 3.3 Terms used in colorimetry and spectrophotometry.
- 3.4 Classification of methods of 'colour' measurement or comparison.
- 3.5 Photoelectric colorimeter method–Single beam photo-electric colorimeter.
- 3.6 Spectrophotometer method–Single beam direct reading spectrophotometer.
- 3.7 Determination of unknown concentration by using concentration-absorbance plot.
- 3.8 Applications of colorimetry and spectrophotometry.

Unit 4. Potentiometric titrations

[07]

- 4.1 Introduction.
- 4.2 Determination of pH.
- 4.3 Study of Quinhydrone and Glass electrodes and their use in determination of pH.
- 4.4 Potentiometric titrations: Classical and analytical methods for locating end points.
- 4.5 Acids- Bases titration with suitable example.
- 4.6 Redox titration with suitable example.
- 4.7 Precipitation titration with suitable example.
- 4.8 Basic circuit of direct reading potentiometer.
- 4.9 Advantages of potentiometric titrations.

Unit 5. Chromatographic techniques and Quality control

[10]

- 5.1 Introduction, classification.

- 5.2 **Column chromatography:** Introduction, types, Principle of adsorption column chromatography, solvent system, stationary phases, Methodology-Column packing, applications of sample, development, detection methods, recovery of components, Applications.
- 5.3 **Ion exchange chromatography:** Introduction, Principle, Types and properties of ion exchangers, Methodology-Column packing, application of sample, elution, detection/analysis, Applications.
- 5.4 **Concepts in Quality control**
- Introduction and Concept of quality.
 - Quality control.
 - Quality assurance.
 - ISO series.
 - Good laboratory practices.

References

1. Text Book of Quantitative inorganic analysis – A.I.Vogel.
2. Instrumental methods of chemical analysis –Willard, Merit & Dean.
3. Instrumentals methods of chemical analysis – Chatwal & Anand.
4. Vogel's textbook of qualitative inorganic analysis – Bassett, Denny etc.
5. Textbook of qualitative inorganic analysis – Kolthoff and Sandel.
6. Fundamentals of analytical chemistry – Skoog and West.
7. Basic concepts of analytical chemistry – S.M. Khopkar.
8. Text book of qualitative chemical analysis – Vogel.
9. Handbook of quality assurance for the analytical chemistry laboratory – James P.Dux, Van Nostrand Reinhold, New York 1986.
10. Instrumental methods of chemical analysis – H.Kaur.
11. A text book of Quantitative chemical analysis Vogel's by J.Mendham, R. C. Denney.
12. Quantitative Chemical Analysis – Daniel C. Harris.
13. Applying ISO 9000 Quality management system, International trade centre publishing genera, Indian edition printed by D. L. Shaha Trust.

B.Sc. Part III (CBCS) SEMESTER -VI
Paper No. DSE-F5, Chemistry Paper No. –XIII
(Inorganic Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected Learning Outcome

Name of the topic	Expected Learning Outcome
1.Coordination Chemistry	The topic focused on the mechanism of the reactions involved in inorganic complexes of transition metals. The students can understand the thermodynamic and kinetic aspects of metal complexes.
2.Nuclear Chemistry	The generation of nuclear power with the help of nuclear reactions is highlighted. Role of radio isotopes in medicinal, industrial and Archaeology fields is explained.
3.Chemistry of f-block Elements	The characteristics, properties and separation of lanthanides and Actinides are discussed. Synthesis and IUPAC Nomenclature of trans uranic elements (TU) explained.
4.Iron and Steel	The techniques involve in ore dressing and extraction of cast iron from its ore are discussed.
5.Bio –inorganic Chemistry	Role of various metals and non metals in our health are discussed.

Unit 1. Coordination Chemistry

[12]

A. Inorganic Reaction mechanism

- 1.1 Introduction.
- 1.2 Classification of Mechanism: Association, dissociation, interchange and the rate determining steps.
- 1.3 S_N^1 and S_N^2 reactions for inert and labile complexes.
- 1.4 Mechanism of substitution in cobalt (III) octahedral complexes.
- 1.5 Trans effect and its theories.
- 1.6 Applications of trans effect in synthesis of Pt (II) complexes.

B. Thermodynamic and Kinetic aspects of metal complexes.

- 1.7 Introduction.
- 1.8 Thermodynamic stability.

- 1.9 Kinetic Stability.
- 1.10 Relation between thermodynamic and kinetic stability.
- 1.11 Stepwise stability constant.
- 1.12 Factor affecting the stability of complexes.
- 1.13 Determination of Stability constant by Job variation, Mole ratio and Slope ratio method.

Unit 2. Nuclear Chemistry

[05]

- 2.1 Nuclear reactions and energetic of nuclear reactions.
- 2.2 Types of nuclear reactions
 - i. Artificial transmutation.
 - ii. Artificial radioactivity.
 - iii. Nuclear fission and its application in heavy water nuclear reactor.
 - iv. Nuclear fusion.
- 2.3 Use of Thorium, Uranium and Plutonium in atomic energy
- 2.4 Applications of radio-isotopes as tracers.
 - i. Chemical investigation – Esterification.
 - ii. Structural determination – Phosphorus pentachloride.
 - iii. Analytical Chemistry – Isotopic dilution method for determination of volume of blood.
 - iv. Age determination – Dating by C^{14} .

Unit 3. Chemistry of f- Block Elements

[09]

A | Lanthanides

- 3.1 Introduction.
- 3.2 Occurrence.
- 3.3 Electronic Configuration.
- 3.4 Oxidation State.
- 3.5 Lanthanide contraction.
- 3.6 Separation of Lanthanides by Ion exchange method.

B] Actinides

3.7 Position in periodic table.

3.8 Electronic configuration.

3.9 General methods of preparation of transuranic elements.

i. Neutron capture – followed by β decay.

ii. Accelerated projectile bombardment.

iii. Heavy ion bombardment.

3.10 IUPAC nomenclature of the super heavy elements with atomic number (Z) greater than 100.

Unit 4. Iron and Steel.

[07]

4.1 Occurrence and ores of iron.

4.2 Definition of the Terms- Ore, Mineral, Slag, Flux, Gangue, Matrix, Calcinations, Reduction, Roasting, Smelting and Leaching.

4.3 Extraction of iron by Blast furnace.

4.4 Steel: Definition and types.

4.5 Conversion of cast iron into steel by

i. Bessemer process.

ii. L.D. process.

4.6 Heat treatment on steel.

Unit 5. Bio-inorganic Chemistry.

[05]

5.1 Introduction.

5.2 Essential and trace elements in biological process.

5.3 Metalloporphyrins with special reference to hemoglobin and myoglobin.

5.4 Biological role of alkali and alkaline earth metal ions with special reference to Na^+ , K^+ and Ca^{2+}

Reference Books: (Use recent editions)

1. Concise Inorganic Chemistry (ELBS, 5th Edition) – J. D. Lee.

2. Inorganic Chemistry (ELBS, 3rd Edition) D. F. Shriver, P. W. Atkins, C. H. Langford, Oxford University Press, 2nd Edition.
3. Basic Inorganic Chemistry : Cotton and Wilkinson.
4. Advanced Inorganic Chemistry (4th Edn.) Cotton and Wilkinson.
5. Concepts and Models of Inorganic Chemistry : Douglas and Mc. Daniel. 3rd Edition. John Wiley publication.
6. Structural principles in inorganic compounds. W. E. Addison.
7. Theoretical principles of Inorganic Chemistry – G. S. Manku.
8. Theoretical Inorganic Chemistry by Day and Selbina.
9. Co-ordination compounds. SFA Kettle.
10. Essentials of Nuclear Chemistry by H. J. Arnikar.
11. Nuclear Chemistry by M. N. Sastri
12. Organometallic Chemistry by R. C. Mahrotra A. Sing, Wiley Eastern Ltd. New Delhi.
13. Inorganic Chemistry by A. G. Sharpe, Addison – Wesley Longman – Inc.
14. Principles of Inorganic Chemistry by Puri, Sharma and Kalia, Vallabh Publication. Pitampur Delhi.
15. Text book of Inorganic Chemistry by K. N. Upadhyaya Vikas Publishing House – New Delhi.
16. Inorganic Chemistry 3rd edn G. L. Miessler and D.A. Tarr, Pearson publication
17. Co-ordination compounds by Baselo and Pearson.
18. UGC Inorganic chemistry by H.C. Khera, Pragati prakashan
19. UGC Advance Inorganic Chemistry by Agarwal and Keemtilal, Pragati Prakashan

B.Sc. Part III (CBCS) SEMESTER-VI
Paper No. DSE-F6 Chemistry Paper No. XIV
(Organic Chemistry)
(Theory Credits: 02, 30 hours, 38 Lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1. Reagents and Reactions in Organic Synthesis	Knowledge of reagents used in organic transformations and various reactions used in organic synthesis.
2. Retrosynthesis	Knowing basic terms used in retrosynthetic analysis, retrosynthesis of some organic compounds.
3. Electrophilic addition to $>C=C<$ and $-C\equiv C-$ bond	Student will learn addition reaction across $>C=C<$ bond w.r.t. hydrohalogenation, hydration hydroxylation, ozonolysis and addition of halogen, halogen acid, hydrogen, water, etc. across $-C\equiv C-$ bond.
4. Natural Products	Knowledge of terpenoids and alkaloids w.r.t. occurrence, isolation, characteristics and classification. Analytical and synthetic evidences of Citral and Nicotine.
5. Pharmaceuticals	Understanding classification of drugs, Qualities of ideal drug. Synthesis and uses of some representative drugs and Drug action of sulpha drugs.

Unit 1. Reagents and Reactions in Organic Synthesis

[10]

A) Reagents

Preparation and Applications of following reagents.

1. Lithium aluminium hydride $LiAlH_4$.
2. Raney Nickel.
3. Osmium tetroxide.

4. Selenium dioxide (SeO_2).
5. Dicyclohexyl Carbodiimide (DCC).
6. Diazomethane.

B] Reactions

Statement, General Reaction, Mechanism and Synthetic applications

1. Diels -Alder reaction.
2. Meerwein –Pondorff-Verley reduction.
3. Hofmann rearrangement.
4. Wittig reaction.
5. Wagner- Meerwein rearrangement.
6. Baeyer Villiger oxidation.
7. Problem based on above reactions.

Unit 2. Retrosynthesis

[06]

- 2.1 Introduction.
- 2.2 Recapitulation of basics of reaction mechanism and reagents.
- 2.3 Terms used- Target molecule (TM), Disconnection, Synthons, Synthetic equivalence, Functional group interconversion (FGI), one group disconnection (w. r. t. suitable examples).
- 2.4 Retrosynthetic analysis and synthesis of target molecules: Cinnamaldehyde, Cyclohexene, para methoxy acetophenone, Methyl-3-phenyl propionate, α,α -dimethyl benzyl alcohol, Paracetamol.

Unit 3. Electrophilic addition to $>\text{C}=\text{C}<$ and $-\text{C}\equiv\text{C}-$ bonds [08]

A. Addition to Carbon-Carbon double ($>\text{C}=\text{C}<$) bond:

- 3.1 Introduction.
- 3.2 Examples of addition reactions.
- 3.3 Mechanism of electrophilic addition to $>\text{C}=\text{C}<$ bond, orientation & reactivity,
 - i. Hydrohalogenation.
 - ii. Anti-Markovnikoff's addition (peroxide effect).
 - iii. Rearrangements (support for formation of carbocation).

- iv. Addition of halogens.
- v. Addition of water.
- vi. Addition of hypohalous acids (HO-X).
- vii. Hydroxylation (formation of 1,2-diols).
- viii. Hydroboration-oxidation (formation of alcohol).
- ix. Hydrogenation (formation of alkane).
- x. Ozonolysis (formation of aldehydes & ketones).

B. Addition to Carbon-Carbon triple ($\text{C}\equiv\text{C}$) bond:

3.4 Introduction.

3.5 Examples of addition reactions.

3.6 Mechanism of electrophilic addition to $\text{C}\equiv\text{C}$ -bond.

- i. Addition of halogens.
- ii. Addition of halogen acids.
- iii. Addition of hydrogen.
- iv. Addition of water.
- v. Formation of metal acetylides.

Reference books:

1. Organic Reactions and Their Mechanisms P. S. Kalsi 3rd Revised edition.
2. Advanced organic Chemistry by B.S. Bahl & Arun Bhal (Reprint in 1997)
3. Organic Chemistry by Morrison and Boyd 6th edition.

Unit 4. Natural Products

[08]

A] Terpenoids:

- 4.1 Introduction, Occurrence, Isolation, General Characteristic, Classification.
- 4.2 General Methods for structure determinations.
- 4.3 Isoprene rule.
- 4.4 Analytical evidences and synthesis of Citral.

B] Alkaloids:

- 4.5 Introduction, Occurrence, Isolation, Classification, Properties.
- 4.6 General Methods for structure determination.

4.7 Analytical evidences and synthesis of Nicotine.

Unit 5. Pharmaceuticals

[06]

- 5.1 Introductio.
- 5.2 Classification.
- 5.3 Qualities of ideal drug.
- 5.4 Synthesis and uses of ethambutal, phenobarbitone, isoniazide, benzocaine, Chloramphenicol, paludrine.
- 5.5 Drug action of sulpha drugs.

Reference books:1

1. Advanced Organic Chemistry : Reactions, Mechanisms and structure by – Jerry March.
2. Reagents for Organic Synthesis by Louis F. Fieser , Mary Fieser -1967.
3. A Text book of Practical Organic Chemistry including Qualitative Organic Analysis by A. I.Vogel.
4. Mechanism and Structure in Organic Chemistry. April,1963 By Edwin S.Gould.
5. A text book of Organic Chemistry by Arun Bahl, B.S.Bhal Eighteenth Revised edition 2006.
6. A guidebook to mechanism in Organic Chemistry sixth Edition by Peter Syke.
7. Organic Synthesis: The Disconnection Approach by Stuart Warren.
8. Organic Synthesis Through Disconnection Approach by P. S. Kalsi
9. Fundamentals of Organic Synthesis the Retrosynthetic Analysis by Ratan Kumar Kar
10. Organic Reactions and Their Mechanisms P. S. Kalsi 3rd Revised edition.
11. Advanced organic Chemistry by B.S. Bahl & Arun Bhal (Reprint in 1997)
12. Organic Chemistry by Morrison and Boyd 6th edition.
13. Organic Chemistry Vol II Stereochemistry and the Chemistry of Natural Products (5th ed) by I. L.Finar.
14. Organic Chemistry Natural Products Vol I, by O. P.Agrawal
15. Industrial Chemistry-B.K. Sharma, Goyal publishing house,Mirut
16. Shreeves chemical process industries 5th Edition, G.T. Oustin, McGrawHill
17. Riegel`s hand book of Industrial chemistry, 9th Edition, Jems A.Kent
18. Industrial chemistry –R.K. Das, 2nd Edition,1976.

19. Synthetic drugs by M.S.Yadav,Campus book international.

B.Sc. III (CBCS) SEMESTER-VI
Paper No. DSE-F 7 Chemistry Paper No. XV
(Physical Chemistry)
(Theory Credits: 02, 30 hours, 37 Lectures)

Expected Program Outcomes:

Name of the Topics	Expected Learning Outcome
1. Phase equilibria	Learning and understanding of phase rule, learning of One component, Two component and Three component systems phase diagrams with suitable examples.
2. Thermodynamics	Knowledge about basic concept of Thermodynamics, free energy, Gibbs-Helmholtz equation and its applications, problem related with it.
3. Solid state chemistry	Learning and understanding Space lattice, lattice sites, Lattice planes, Unit cell. Laws of crystallography, Weiss indices and Miller indices, Cubic lattices and types of cubic lattice, planes or faces of a simple cubic system, Diffraction of X-rays, Derivation of Bragg's equation. Determination of crystal structure by Bragg's method. crystal structure of NaCl and KCl on the basis of Bragg's equation.
4. Chemical kinetics	Learning of kinetics, Simultaneous reactions such as i)opposing reaction ii)side reaction iii)consecutive reactions: iv) chain reaction v) explosive reaction
5. Distribution law	Learning and understanding the knowledge of distribution law, its modifications, applications of distribution laws, process of extraction, determination of solubility, distribution indicators, molecular weights.

Unit 1. Phase Equilibria

[07]

1.1 Introduction.

1.2 Gibbs phase rule : Phase rule equation and explanation of terms involved in the equation.

1.3 Phase diagram, true and metastable equilibria.

1.4 One component systems:

- i. Water system.
- ii. Sulphur system with explanation for polymorphism.

1.5 Two component systems:

- i. Eutectic system: (Ag – Pb system); Desilverisation of lead.
- ii. Freezing mixture: (KI – H₂O system).
- iii. Formation of compound with congruent melting point (FeCl₃ – H₂O).

1.6 Three component solid-liquid system:

- i. Development of triangular phase diagram: (Acetic acid – Chloroform – water system).

Unit 2. Thermodynamics

[09]

2.1 Introduction.

2.2 Free energy: Gibbs function (G) and Helmholtz function (A), Criteria for thermodynamic equilibrium and spontaneity.

2.3 Relation between ΔG and ΔH : Gibbs-Helmholtz equation.

2.4 Phase equilibria : Clapeyron – Clausius equation and its applications.

2.5 Thermodynamic derivation of law of mass action, Van't – Hoff isotherm and isochore.

2.6 Fugacity and activity concepts.

2.7 Partial molar quantities, Partial molar volume, Concept of chemical potential, Gibbs-Duhem equation.

2.8 Numerical problems.

Unit 3. The Solid State

[09]

3.1 Introduction: Space lattice, lattice sites, lattice planes, unit cell.

3.2 Laws of crystallography:

- i. Law of constancy of interfacial angles
- ii. Law of rational indices
- iii. Law of crystal symmetry.

3.3 Weiss indices and Miller indices.

- 3.4 Cubic lattice and types of cubic lattice, planes or faces of a simple cubic system, spacing of lattice planes.
- 3.5 Diffraction of X-rays, Derivation of Bragg's equation.
- 3.6 Determination of crystal structure by Bragg's method.
- 3.7 Determination of crystal structure of NaCl and KCl on the basis of Bragg's equation.
- 3.8 Numerical problems.

Unit 4. Chemical Kinetics

[06]

- 4.1 Introduction.
- 4.2 Simultaneous reactions such as
 - i. Opposing reaction: (Derivation of rate equation for first order opposed by first order expected).
 - ii. Side reaction.
 - iii. Consecutive reactions.
 - iv. Chain reaction.
 - v. Explosive reaction (Derivation of rate equation and Numerical problems are not expected).

Unit 5. Distribution law

[06]

- 5.1 Introduction, solute, solvent and solution, miscible and immiscible liquids.
- 5.2 Nernst distribution law and its limitations.
- 5.3 Modification of distribution law with respect to change in molecular state of solute (association and dissociation of solute in one of the solvent).
- 5.4 Applications of the distribution law
 - i. Process of extraction (derivation expected).
 - ii. Determination of solubility of solute in particular solvent.
 - iii. distribution indicators.
 - iv. determination of molecular weight of solute in different solvents.
- 5.5 Numerical problems.

Reference Books:

1. Physical Chemistry by G. M. Barrow, International student Edition, Mc Graw Hill.
2. University General Chemistry by C.N.R. Rao, Macmillan.
3. Physical Chemistry by, R. A. Alberty, Wiley Eastern Ltd.
4. The Elements of Physical Chemistry by P. W. Atkins, Oxford.
5. Principles of Physical Chemistry by S. H. Maron, C. H. Prutton, 4th Edition.
6. Nuclear and Radiochemistry by Friedlander, Kennedy and Miller, John Wiley and Sons. Wiley International edition.
7. Essentials of Nuclear Chemistry by H. J. Arnikar, 4th edition. Wiley Eastern.
8. Principles of Physical Chemistry by Puri, Sharma, Pathania, Shobhanlal Naginchand and Company, Jalandar.
9. Instrumental methods of chemical analysis by Chatwal and Anand, 5th Edition, Himalaya Publication.
10. Fundamentals of molecular spectroscopy by C. N. Banwell – Tata Mc Graw-Hill.
11. Quantum Chemistry including molecular spectroscopy by B. K. Sen, Tata Mc Graw -Hill.
12. Text Book of Physical Chemistry by S. Glasstone, Macmillan India Ltd.
13. Elements of Physical Chemistry by D. Lewis and S. Glasstone (Macmillan).
14. Principles of Physical Chemistry by Maron and Lando (Amerind).
15. Electrochemistry by S. Glasstone.
16. Physical Chemistry by W. J. Moore.
17. Basic Chemical Thermodynamics by V. V. Rao (Macmillan).
18. Essential of Physical Chemistry, Bahl and Tuli (S. Chand).
19. Text Book of Physical Chemistry, Soni and Dharmarha.
20. Advanced Physical Chemistry Gurdeep Raj GOEL Publishing House, 36th Edition

B. Sc. Part III (CBCS) SEMESTER-VI
Paper No. DSE-F8 Chemistry Paper No. XVI
(Industrial Chemistry)
(Theory Credits: 02, 30 hours, 38 lectures)

Expected learning Outcomes:

Name of the topic	Expected Learning Outcome
1.Sugar Industry	Learning and understanding the whole process of manufacture of sugar and byproducts of sugar industry.
2.Manufacture of industrial heavy chemicals	Learning and understanding of physico-chemical principles of production of ammonia, sulfuric acid, nitric acid and sodium carbonate along with its manufacturing plant.
3.Synthetic polymers	Understanding and learning the classification, synthesis and applications of various polymers.
4.Petroleum industry and eco-friendly fuels	Understanding the petroleum Industry, fuels and need of use of ecofriendly fuels.
5.Nanotechnology	Understanding and learning of nanotechnology including classification, optical properties, synthesis routes, characterization techniques and applications of nano-materials.

Unit 1. Sugar Industry

[07]

- 1.1 Introduction.
- 1.2 Manufacture of cane sugar in India: Extraction of juice, Clarification, Concentration, crystallization, centrifugation and other details of industrial process.
- 1.3 Byproducts of sugar industry.
- 1.4 Manufacture of Ethyl Alcohol from Molasses: by Fermentation.

Unit 2. Manufacture of Industrial Heavy Chemicals

[08]

- 2.1 Introduction
- 2.2 Manufacture of Ammonia (NH₃)
 - i. Physico-chemical principles.

ii. Manufacture by Haber's process.

2.3 Manufacture of Sulphuric acid (H_2SO_4)

i. Physico-chemical principles.

ii. Manufacture by Contact process.

2.4 Manufacture of Nitric acid (HNO_3)

i. Physico-chemical principles.

ii. Manufacture by Ostwald's process (Ammonia oxidation process).

2.5 Manufacture of Sodium carbonate (Na_2CO_3) (Washing soda).

i. Physico-chemical principles.

ii. Manufacture by Solvay process.

Unit 3. Synthetic Polymers

[08]

3.1 Introduction.

3.2 Classification.

i. Based on origin.

ii. Based on composition-organic, inorganic polymers.

iii. Based on method of preparation.

iv. Based on general physical properties.

v. Based on structure.

3.3 Addition Polymerization: Free radical addition and ionic addition polymerization.

3.4 Ziegler-Natta polymerization.

3.5 Methods of preparation and applications of some organic polymers: Polyethylene, polystyrene, polyvinyl chloride, Phenol-formaldehyde resin.

3.6 Conducting organic polymers: Synthesis and properties of Polyaniline, polypyrrole.

3.7 Applications of conducting organic polymers.

Unit 4. Petroleum industry and eco-friendly fuels

[07]

A] Petroleum industry

Introduction, occurrence, composition of petroleum, resources, processing of petroleum, calorific value of fuel, cracking, octane rating (octane number), cetane

number, flash point, petroleum refineries, applications of petrochemicals, synthetic petroleum, lubricating oils & additives.

B| Fuels

Fuels and eco-friendly fuels: liquid, gaseous fuel (LPG, CNG), fossil fuels, diesel, bio diesel, gasoline, aviation fuels. Use of solar energy for power generation.

Unit 5. Nanotechnology

[08]

- 5.1 Introduction of nanotechnology, history, Classification of nanoparticles based on size.
- 5.2 Optical properties of Nanomaterial's
 - i. Semiconducting NPs.
 - ii. Metallic NPs.
- 5.3 Synthetic Routes of nanomaterials: Top-down and bottom-up approaches.
- 5.4 Synthesis methods: Sol-gel, precipitation, chemical reduction, chemical vapor deposition, hydrothermal, electrodeposition.
- 5.5 Characterization of nanomaterials: X-Ray diffractometer, Scanning Electron Microscope, Transmission electron microscope.
- 5.6 Applications of nanotechnology.

References:

- 1. Industrial Chemistry-B.K. Sharma
- 2. Chemical process industries – Shrieve & Brink
- 3. Industrial chemistry – Kent
- 4. Industrial chemistry – Rogers
- 5. Industrial chemistry – R. K. Das
- 6. Mechanical chemistry – Burger
- 7. Nanotechnology: Principles and Practices – Sulbha Kulkarni
- 8. The Petroleum chemicals industry by R. F. Goldstine, e &Fn London
- 9. Fundamentals of petroleum chemical technology by P Below.
- 10. Petro Chemicals Volume 1 and 2 ; A Chauvel and Lefevrev ; Gulf Publishing company

Laboratory Course (Practicals)

N. B. (i) Use of Digital/Analytical/Chainometric/Single pan balance is allowed.

(ii) Use of Scientific calculator is allowed.

(iii) Use of Chart/Text book/Hand book of practical is allowed.

(iv) There will be a project having weightage of 15 marks.

Project should be in the following areas but focused on applications of Chemistry.

a) Society oriented

b) Daily use

c) Industry based

d) Analysis based

The project will be assessed by all the three examiners with equal weightage at the time of practical examinations.

The project may be completed individually or by a group of students not exceeding number three.

One copy of the project should be submitted at the time of examination. After assessment this copy will remain in the department.

INORGANIC CHEMISTRY

I) Gravimetric Estimations (G).

N. B. Any **two** experiments from G1 to G3 and any **two** experiment from G4 & G6.

G1. Gravimetric estimation of iron as ferric oxide (Fe_2O_3) from the given solution containing ferrous ammonium sulphate, copper sulphate and free sulphuric acid.

G2. Gravimetric estimation of zinc as zinc pyrophosphate from the given solution

containing zinc sulphate, ferrous ammonium sulphate and free sulphuric acid.

G3. Gravimetric estimation of barium as barium sulphate(BaSO_4) from the given solution containing barium chloride, ferric chloride and free hydrochloric acid.

G4. Gravimetric estimation of barium as barium chromate(BaCrO_4) from the given solution containing barium chloride, ferric chloride and free hydrochloric acid.

G5. Gravimetric estimation of nickel as bis (dimethylglyoximate) nickel (II) from the given solution containing nickel sulphate, ferrous ammonium sulphate and free Sulphuric acid.

G6. Gravimetric estimation of aluminium as aluminium oxinate potassium tris (8-hydroxy quinolato) aluminium (III) from the given solution containing potash alum ,copper sulphate and free sulphuric acid.

[For the gravimetric experiments, stock solution should be given in the range of 10 to 15 cm^3 and asked to dilute to 100 cm^3 (or the stock solution should be given in the range of 20 to 30 cm^3 and asked to dilute to 250 cm^3). Use 50 cm^3 of this diluted solution for estimation.]

II. Inorganic Preparations (P).

N. B. At least **six** preparations from the following with **percentage yield**:

P1. Preparation of potassium trioxalato aluminate (III).

P2. Preparation of Tetra ammine copper (II) chloride.

P3. Preparation of tris(thiourea) copper (I) sulphate.

P4. Preparation of potassium trioxalato ferrate (III).

P5. Preparation of chloropenta-ammine cobalt (III) chloride.

P6. Preparation of ammonium diamminetetraethiocyanato chromate (III) (Reineck's salt).

P7. Preparation of Potassium hexa nitro cobaltate (III).

P8. Preparation of ammonium trioxalato chromate (III).

P9. Preparation of hexathiourea plumbus (II) nitrate.

A) Percentage Purity

N. B. : Any **two** from the following.

V1. Determination of percentage purity of ferrous ammonium sulphate.

V2. Determination of percentage purity of tetrammine copper (II) sulphate.

V3. Determination of percentage purity of potassium (trioxalato-aluminate) (III).

B) Analysis of Commercial Sample.

N. B. Any **Three** from the following:

V5. Determination of percentage of Calcium in the given sample of milk powder or lime.

V6. Determination of amount of aluminum in the given solution of potash alum.

V7. Determination of titrable acidity in the given sample of milk or lassi.

V8. Determination of percentage purity of boric acid using supplied sodium hydroxide.

(Standard succinic or oxalic acid solution to be prepared to standardise the given sodium hydroxide solution.)

V9. To determine the amount of HCl in given of commercial samples.

C) Ion exchange method.

N. B. Any **two** from the following.

V10. Determination of amount of sodium present in the given solution of common salt using cation exchange resin (By Acid Base titration).

V11. Determination of amount of magnesium in the given solution containing (Mg^{2+} and Zn^{2+}) using anion exchange resin and standard solution of EDTA.

V12. Determination of amount of zinc in the given solution containing (Mg^{2+} and Zn^{2+})
using anion exchange resin and standard solution of EDTA.

Reference Books:

1. A text book of quantitative Inorganic Analysis - A. I. Vogel.
2. Text book of Quantitative Inorganic Analysis - Kolthoff and Sandell.
3. Experimental Inorganic Chemistry - Palmer W. G.
4. Advanced Practical Inorganic Chemistry - Adams and Raynor.
5. Manual in Dairy Chemistry - I.C.A.R. Sub-Committee on Dairy Education.
6. Chemical methods for environmental analysis - R. Ramesh and M. Anbu.

ORGANIC CHEMISTRY

I) Qualitative analysis

Separation of binary mixture and Identification of **one** component. (At least 08 mixtures)

- Nature
- 1) Solid – Solid : 4 mixtures
 - 2) Solid – Liquid : 2 mixtures
 - 3) Liquid – Liquid : 2 mixtures

1) Solid – Solid Mixtures:

One mixture from each the following types should be given:

- i) Acid+Phenol
- ii) Acid + Base
- iii) Acid+Neutral
- iv) Phenol +Base
- v) Phenol+Neutral
- vi) Base +Neutral

2) Solid – Liquid Mixtures

Mixture of type Neutral + Neutral or Acid + Neutral should be given.

3) Liquid – Liquid Mixtures

Mixture of type Neutral + Neutral or Base + Neutral should be

Given. Following compounds should be used for preparation of mixtures

- i) Acids: Benzoic acid, Phthalic acid, Salicylic acid, Cinnamic acid, Aspirin, Oxalic acid.
- ii) Phenols: α -naphthol, β -naphthol.
- iii) Bases: o-nitroaniline, m-nitroaniline, p-nitroaniline, aniline, o-toluidine and N, N-dimethylaniline.
- iv) Neutrals: Anthracene, acetanilide, m-dinitrobenzene, chloroform, carbon tetrachloride, acetone, nitrobenzene, ethyl acetate, ethyl benzoate, bromobenzene, urea and thiourea.

NB :

- 1. For Solid-Liquid and Liquid-Liquid mixtures avoid detection of type of mixture. Instead the weightage is given to detection of nature and separation of mixture.
- 2. Separation and qualitative analysis of the binary Mixtures should be carried out on microscale using microscale kits.

II) Quantitative analysis: Organic Estimations:(Any four)

- 1. Estimation of sucrose
- 2. Saponification value of oil.
- 3. To determine the amount of acid and amide present in the given mixture of acid and amide.
- 4. Determination of Molecular weight of monobasic/dibasic acid by volumetric method.
- 5. Estimation of unsaturation –to estimate the percentage purity of given olefinic compound by bromination method.

Note: Double burette method should be used for titration.

III) Organic Preparations: (Any four)

- 1. Multicomponent reaction - Preparation of Dihydropyrimidone.
- 2. Radical coupling reaction - Preparation of 1,1,2 bis-2naphthol.
- 3. Base catalyzed Aldol condensation- Preparation of Dibenzal propanone.
- 4. Diels Alder reaction- Reaction between Furan and Maleic acid
- 5. Benzil- Benzilic acid rearrangement reaction
- 6. Oxidation reaction – Preparation of Methyl phenyl sulfone.

IV) Preparation of Derivatives:

1. Picrate derivative (naphthalene and α -naphthol).
2. Iodoform (Acetone).
3. Osazone of Carbohydrates (Glucose).
4. Oxalate derivative (of Urea).
5. Nitrate derivative of Urea
6. 2,4-Dinitro phenyl hydrazone (carbonyl compounds)
7. Oxime derivatives (carbonyl compounds)

Or

Determination of structure of organic compound from given NMR spectra.

Ethanol, Ethyl acetate, Benzyl alcohol, Propanoic acid, Butanaldehyde, Ethyl benzoate, Isopropyl benzene, Propyl ether, n-pentane, Propene, Diethyl amine, 2-chloro butane.

NB: All preparations should be carried out by considering green Chemistry approach

1. Preparation of derivative should be carried out on small scale. The starting compound should not be given more than one gram.
2. Calculation of percentage practical yield in preparation is must.
3. Recrystallization of crude product and its melting point.
4. The product should be confirmed by TLC.
5. Assign reactions with mechanism.

Reference books:

1. Practical Organic Chemistry by – A.I.Vogel.
2. Practical Organic Chemistry by – O. P. Agarwal

PHYSICAL CHEMISTRY

I. Non instrumental Experiments:

A. Any one of the following

i) Partition Law.

To determine the partition coefficient of CH_3COOH between H_2O and CCl_4 .

ii) Viscosity.

To determine the viscosity average molecular weight of a polymer.

iii) Adsorption.

To investigate the adsorption of oxalic acid by activated charcoal and test the validity of Freundlich & Langmuir isotherms.

iv) Solubility.

To study the effect of addition of electrolyte (NaCl or KCl) on the solubility of Benzoic acid at room temperature.

B. Chemical kinetics. (Any four)

1. The study of energy of activation of first order reaction i.e. hydrolysis of methyl acetate in presence of 0.5 N HCl / $0.5 \text{ N H}_2\text{SO}_4$.
2. The study of energy of activation of second order reaction i.e. reaction between $\text{K}_2\text{S}_2\text{O}_8$ and KI (Equal concentrations).
3. The study of energy of activation of second order reaction i.e. reaction between $\text{K}_2\text{S}_2\text{O}_8$ and KI (Unequal concentrations).
4. To study the hydrolysis of methyl acetate by using its two concentrations in presence of 0.5 N HCl and hence find velocity constant of the reaction.
5. To study the effect of addition of electrolyte (KCl) on the reaction between $\text{K}_2\text{S}_2\text{O}_8$ and KI (Equal concentrations).

C. Partial molar volume.

1. To determine the partial molar volume of ethyl alcohol in a mixture of ethyl alcohol and water (Any seven mixtures be given).

II. Instrumental experiments

A. Potentiometry (Any four)

1. Titration of strong acid with strong alkali.

N.B. i) 8 to 10 ml of 1N acid solution to be given by examiner in 100 ml volumetric flask & student should dilute it to 100 ml and 10ml of this solution is taken for titration.

ii) Experiment is carried out by taking pilot run from 1 to 10 ml and then final run taking 0.2 ml reading in the range of end point.

2. Preparation of buffer solution and determination of their pH (Any five buffer solutions), Theoretical calculation of pH values by using Henderson's equation.
3. Determination of standard electrode potential of Zn/Zn^{++} , Cu/Cu^{++} , Ag/Ag^+ (Any two).
4. Estimate the amount of Cl^- , Br^- and I^- in given unknown halide mixture by titrating it against standard AgNO_3 solution.
5. Titration of ferrous ammonium sulphate using $\text{K}_2\text{Cr}_2\text{O}_7$ solution and to calculate redox potential of Fe^{++} , Fe^{+++} system.

B. Conductometry (Any three).

N.B. i) 8 to 10 ml of 1N acid solution to be given by examiner in 100 ml volumetric flask & student should dilute it to 100 ml and 10ml of this solution is taken for titration.

1. Titration of a mixture of weak acid and strong acid with strong alkali
2. To study the effect of substituent on dissociation constant of weak acid with respect to acetic acid and monochloroacetic acid (cell constant to be given).

N.B. Calculate K by using formula $K = \alpha^2 \cdot C / (1 - \alpha)$

3. To determine the velocity constant of hydrolysis of ethyl acetate by NaOH solution by conduct metric method.
4. To determine the normality of citric acid in lemon by titrating it against standard 0.2 N NaOH solution by conduct metric method.
5. To determine λ_∞ of strong electrolyte (NaCl or KCl) and to verify Onsager equation.

C. Refractometry. (Any One)

1. To determine the percentage composition of unknown mixture by (i) graphical method and (ii) by composition law (Densities of pure liquids A & B be given).
2. To determine the molar refractivity of methyl acetate, ethyl acetate, n-hexane and

carbon tetrachloride and calculate the refraction equivalents of C, H and Cl atoms.

D. Colorimetry (Any Two).

1. To verify Lambert – Beer's law using CuSO_4 solution.
2. To estimate of Fe^{+++} ions by thiocyanate method.
3. To estimate Fe^{+++} ions using salicylic acid by colorimetric titration.
4. To determine the order of reaction for the oxidation of alcohol by potassium dichromate and potassium permanganate in acidic medium colorimetrically.

E. pH – metry (Any One).

1. To determine the dissociation constant of monobasic acid (Acetic acid).
2. To determine the dissociation constant of dibasic acid (Malonic acid).
3. To determine hydrolysis constant of aniline hydrochloride.

Reference Books:

1. Findlay's Practical Physical Chemistry (Longman)
2. Advanced Practical Physical Chemistry by J. B. Yadav, Goel publishing house.
3. Practical Physical Chemistry by B. D. Khosla, V. C. Garg (R. Chand and Co.)
4. Systematic experimental Physical Chemistry by Rajbhoj, Chandekar (Anjali Publicaiton) Aurangabad.
5. Practical Physical Chemistry: Nandkumari, Kothari and Lavande.
6. Practical Physical Chemistry by Gurtu (S. Chand).
7. Text Book of Qualitative Inorganic Analysis by A. I. Vogel (ELBS Longman).

Nature of Practical Examination

- 1) The practical examination will be of **200** marks.
- 2) The duration of practical examination will be of **three days - six and half hour per day**.
- 3) Questions related to the practical exercise/project report/industrial visit carried out by the student should be asked in viva.
- 4) Use of scientific calculator is allowed.

- 5) S.I. units should be used wherever possible.
 - 6) Use of Chart / Hand book / Text book of practical is allowed.
 - 7) A student is expected to submit a journal certified by the Head of the Department.
 - 8) A student not be permitted to appear at the practical examination unless he/she produces a certified journal. If the journal is lost, the student should produce a certificate from the Head of the Department stating that he/she has satisfactory completed the practical work but his / her journal is lost.
 - 9) Use of Digital / Analytical / Chainometric / Single pan balance is allowed.
 - 10) A student should submit one copy of project at the time of examination.**
- Each examiner should asses the project work for Five marks and sign the same. If any student will not submit project work, he/she will be given Zero mark for the project.**

11) The distribution of marks for practical examination will be as follows:

A) Physical Chemistry 60 marks

- i) Non-instrumental experiment 25 marks
- ii) Instrumental experiment 25 marks
- iii) Viva 05 marks
- iv) Journal 05 marks

B) Inorganic Chemistry 65 marks

- i) Gravimetric analysis 25 marks
- ii) Preparation 15 marks
- iii) Volumetric estimation 15 marks
- iv) Viva 05 marks
- v) Journal 05 marks

C) Organic Chemistry 60 marks

- i) Mixture separation and identification of compounds 25 marks
- ii) Estimation/Preparation 20 marks
- iii) Derivative 05 marks
- iv) Viva 05 marks
- v) Journal 05 marks

D) Project 15 marks

Total:- 200 marks

B.Sc. Programme structure (CBCS Pattern)

B.Sc. I, B. Sc. II, B. Sc. III Inorganic, Organic, Physical Analytical Chemistry

/ Industrial Chemistry)

B. Sc. I

Semester	Subject	Course Code	Paper No
I	Inorganic Chemistry	DSC-3A	I
	Organic Chemistry	DSC- 4A	II
II	Physical Chemistry	DSC- 3B	III
	Analytical Chemistry	DSC – 4B	IV

B. Sc. II

Semester	Subject	Course Code	Paper No
III	Physical Chemistry	DSC-C3	V
	Industrial Chemistry	DSC- C4	VI
IV	Inorganic Chemistry	DSC- D3	VII
	Organic Chemistry	DSC – D4	VIII

B. Sc III

Semester	Subject	Course Code	Paper No
V	Inorganic Chemistry	DSC-E5	IX
	Organic Chemistry	DSC- E6	X
	Physical Chemistry	DSC- E7	XI
	Analytical Chemistry	DSC – E8	XII
VI	Inorganic Chemistry	DSC-F5	XIII
	Organic Chemistry	DSC- F6	XIV
	Physical Chemistry	DSC- F7	XV
	Industrial Chemistry	DSC – F8	XVI

SHIVAJI UNIVERSITY, KOLHAPUR.



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Accredited By NAAC

(2021)

Revised Syllabus For

B. Sc. I Botany

(Faculty of Science & Technology)

Paper -I, II - (Semester- I)

and

Paper -III, IV - (Semester-II)

(NEP-2020) Syllabus to be implemented from August 2022 onwards.

A] Ordinance and Regulations: (As applicable to Degree Course)

B] Shivaji University, Kolhapur

Revised Syllabus For

Bachelor of Science

1. TITLE : Subject- Botany

Optional under the Faculty of Science and Technology

2. YEAR OF IMPLEMENTATION:- Revised Syllabi implemented from August 2022 onwards.

3. PREAMBLE:-

[**Note :-**The Board of Studies should briefly mention foundation, core and applied components of the course / paper. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge at examination level.]

**4. GENERAL OBJECTIVES OF THE COURSE:
(as applicable to the Degree concerned)**

Objectives:-

- 1) To impart knowledge of Science.
- 2) To develop scientific attitude, open Minded, critical, curious.
- 3) To develop skill in practical work, experiments and laboratory materials and equipments along with the collection and interpretation of scientific data to contribute the science.
- 4) To understand scientific terms, concepts, facts, phenomenon and their relationships.
- 5) To make the students aware of natural resources and environment.

- 6) To provide practical experience to the students as a part of the course
- 7) To develop scientific ability to work in the field of research and other fields of their own interest and to make them fit for society.
- 8) To acquire knowledge of plant and related subjects so as to understand natural phenomenon, manipulation of nature and environment in the benefit of humanbeings.
- 9) To develop ability for the application of the acquired knowledge to improve agriculture and other related fields to make the country selfreliant and sufficient.
- 10) To create the interest of the society in the subject and scientific hobbies, exhibitions and other similar activities.

5. DURATION

The course shall be a full time course.

6. PATTERN:-

Pattern of Examination will be Semester.

7. FEE STRUCTURE :-

As per Government /University rules.

1. Refer brochure and prospectus of concern affiliated college/institute to Shivaji University, Kolhapur.
2. Other fee will be applicable as per rules and norms of Shivaji University, Kolhapur.

8. ELIGIBILITY FOR ADMISSION:

As per guidelines obtained from Shivaji University, Kolhapur by following rules and regarding reservations by Govt. of Maharashtra.

9. MEDIUM OF INSTRUCTION:

The medium of instruction shall be in English.

10. STRUCTURE OF COURSE- B. Sc. I Botany

FIRST YEAR (SEMESTER I and II) (Total Number of papers - IV)

Sr. No.	Subjects/Papers	Theory	Internal	Total Marks
1.	Paper-I	50	-	50
2.	Paper-II	50	-	50
3.	Paper-III	50	-	50
4.	Paper-IV	50	-	50
	Practical			50
	Total			250

11. SCHEME OF TEACHING AND EXAMINATION:-

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

FIRST YEAR - SEMESTER – I/ II : Botany (Optional)

Scheme of Teaching and Examination

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				Examination Scheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
	Semester-I							
1	Paper-I	2.5	-	-	2.5	50		50
2	Paper-II	2.5	-	-	2.5	50		50
	Semester-II							
3	Paper-III	2.5	-	-	2.5	50		50
4	Paper-IV	2.5	-	-	2.5	50		50
	Practical- I (annual)	-	-	4	04	50	-	50
	Total	05	-	04	09	-	-	250

- ❖ Practical Examination will be conducted annually for 50 Marks.
- ❖ Except English, there shall be combined passing for two theory courses of 50 marks each. i.e. Minimum 35 marks are required for passing out of 100.
- ❖ There shall be separate passing for theory and practical courses.
- ❖ CGPA Ability Enhancement Compulsory Course(AECC) for (A and B) is English
- ❖ SEC- Skill Enhancement Course (Vocational Studies –I):
Field Projects/ Internship/ Apprenticeships/ Community Engagement and Services, any one Selected From Pool of Courses of 4 Credits.
- ❖ SEC I + SEC II Practical examination shall be conducted annually of 100 Marks at the end of semester –II.
Total Marks for B.Sc.-I Botany (Excluding English) : 250
- ❖ Theory and practical lectures : 48 minutes each

Exit at Level 5:

Those who are interested to exit after Level 5 shall have to complete the SEC-I and SEC-II courses with allotted credits of Shivaji University Guidelines

Programme Structure for Bachelor of Science with Botany as a Major subject With Multiple Entry Multiple Exit Options

SEM	Discipline Specific Core Courses (DSC) (L+P) (Credits)	Discipline Specific Elective Courses (DSE) (L+P) (Credits)	Ability Enhancement Compulsory Courses (AECC) (L+P) (Credits)	Skill Enhancement Courses (SEC)		Total Credits
				Vocational Courses (L+P) (Credits) (Non	Value Based Courses (P) (Credits) (NonCGPA)	
I	Botany- (Theory 4 + practical 2 = 6 credits). And any other three courses Physics / Chemistry / Zoology / Microbiology / Geology / Comp. Sc. / Biotech ./Electronics / Geography / Industrial Microbiology / Maths / statistics (courses- 3 x credits- 6=18 credits)	--	CGPA – AECC-1; (2 credits)- English for communication. Non CGPA (2 credits) [Democracy, Election & Good Governance]	SBC-1: (2 –credits) Multidisciplinary (select From the Pool of Courses)	VBC (1) NCC / NSS /Sports / Cultural, etc.	26
II	Botany- Theory credits 4 practical credits 2 Total credits for each subject= 6 credits). And any other three courses Physics / Chemistry / Zoology / Microbiology / Geology / Comp. Sc. / Biotech ./Electronics / Geography / Industrial Microbiology / Maths / statistics (courses- 3 x credits- 6=18 credits)	--	AECC- 2: (2 credits) - Eng for communication	SBC-2: (2- credits) Multidisciplinary (select From the Pool of Courses)	VBC (1) NCC / NSS /Sports / Cultural, etc.	26

Level 5 : Exit with Certificate Course in Science with the completion minimum credits as per the Shivaji University Guidelines.

III	Botany (Theory 4 + practical 4) = 8 credits And select any two courses from Physics / Chemistry / Zoology / Microbiology / Geology / Comp. Sc./ Pollution / Biotech /Electronics / Geography / Industrial Microbiology / Maths / Statistics / Astrophysics/ Plant Protection. (2 courses x 8 credits = 16 credits)	--	AECC-3 : (2 credits) Environmental Studies (Theory)	SBC-3 (2) Multidisciplinary (select From the Pool of Courses)	VBC (1) NCC / NSS /Sports / Cultural, etc.	26
IV	Botany (Theory 4 + practical 4) = 8 credits And select any two courses from Physics / Chemistry / Zoology / Microbiology / Geology / Comp. Sc. / Pollution / Biotech /Electronics / Geography / Industrial Microbiology / Maths / statistics / Astrophysics/ Plant Protection. (2 courses x 8 credits = 16 credits)	--	AECC-4 : (2credits) Environmental Studies (Project)	SBC- 4 (2) Multidisciplinary (select From the Pool of Courses)	VBC (1) NCC / NSS /Sports/ Cultural, etc.	26
Level 6 : Exit with Diploma in Science (with the completion of with the completion minimum credits as per the Shivaji University Guidelines.						
V	--	Four DSE courses of Botany (Theory credits = 2 + practical	AECC-5 (2 credits) Professional Communication (Eng) [Constitution of India & Local Self	SBC- 5 (2) Multidisciplinary (select From the Pool of Courses)	VBC (1) NCC / NSS /Sports / Cultural, etc.	18

		credits = 2 Total credits for each course = 4 (4 courses x 4 credits each = 16 credits)	Government : Non-CGPA (2)			
VI	--	Four DSE courses of Botany (2+2) = 4 credits each (4 x 4 = 16 credits)	AECC-6 (2 credits) Professional Communication (Eng)	SBC- 6 (2) Multidisciplinary	VBC (1) NCC / NSS /Sports / Cultural, etc.	18

**Level 7 : Exit with three years Bachelor of Science (with the completion minimum credits as per the Shivaji University Guidelines.
) or continue studies for Bachelor with (Honours/Research) four year Degree Programme**

Note: 1. For first year Sem-I, students have to select any four DSC courses available at their respective colleges. Same four courses they have to continue for Sem-II.

2. For second year Sem-III, students have to select any three out of four DSC courses of first year. Same three courses they have to continue For Sem-IV.

3. For third year Sem –V, students have to select any one DSC course out of three DSC courses of second year. Same course they have to continue for Sem-VI.

4. For semesters V & VI there shall be four DSE courses (papers) for each semester

5. The DSC courses from C1 to C14 have two papers of 50 marks each with combined passing i.e. minimum 35 marks are required to pass out of 100 marks.

6. Students can exit after Level 5 with Certificate Course in Science (with the completion of courses equal to minimum allotted credits as per shivaji university guidelines)

7. Students can exit after Level 6 with Diploma in Science (with the completion of courses equal to minimum credits allotted by the Shivaji University, Kolhapur

8. Students can exit after Level 7 with Bachelor of Science (with the completion of courses equal to minimum credits allotted by the Shivaji University, Kolhapur

9. SBC: Skill Based Courses (2 credits). Students have to select one for each semester from the pool of courses available at their respective colleges or the pool of courses from Shivaji university .

10. VBC: Value Based Courses (1Credit). Students have to select one for each semester from the pool of courses available at their respective colleges

13. STANDARD OF PASSING:-

As Prescribed under rules & regulation for each degree.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(MODULE wise weightage of marks should also be mentioned)

Q. 1. Multiple choices questions (10-Questions) --- 10 Marks

Q.2. Attempt **any two** of the following.

(Essay type/Broad answer questions) ---- 20 Marks

Q.3. Write short notes (**any four**) --- 20 Marks

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

(Introduced from August 2022 onwards)

Old Syllabus (Semester pattern)			Revised Syllabus (Semester pattern)	
Paper No.	Title of Old Paper	Semester No	Paper No.	Title of New Paper
I	Biodiversity of Microbes, Algae and Fungi	I	I	Microbes, Algae and Bio fertilizers
II	Biodiversity of Archegoniate	I	II	Cell biology and Analytical Techniques
III	Plant Ecology	II	III	Mycology, Phyto pathology and Mushroom Cultivation
IV	Plant Taxonomy	II	IV	Archegoniate (Bryophytes, Pteridophytes and Gymnosperms)

16. SPECIAL INSTRUCTIONS, IF ANY. --- Nil

Semester- I

Botany Paper I: DSC-13 A: Microbes, Algae and Biofertilizers

**CREDIT: 2. LECTURE PERIODS: 2.5 PER WEEK- LECTURE HOURS; 2 PER WEEK
MARKS: 50**

MODULE	SUB-MODULE	TOPICS	LECTURE PERIOD
1	Microbes		
	1.1 Viruses	i) Discovery, General characteristics, ii) Structure of viruses iii) Types of viruses- DNA viruses (T- Phage), RNA viruses (TMV) iv) Economic importance	06
	1.2 Bacteria	i) Discovery, General characteristics ii) Cell structure iii) Forms of bacteria iv) Nutrition, v) Reproduction- vegetative, asexual and sexual (Conjugation) vi) Economic importance	06
2	Algae and Biofertilizers		
	2.1 Algae	i) General outline of plant kingdom (Cryptogams and Phanerogams), ii) General characteristics of algae Classification (as per G. M. Smith, 1955) up to classes iii) Economic importance iv) Life cycle (excluding developmental stages of sex organs) of the following types- a) Cyanophyceae: <i>Nostoc</i> b) Chlorophyceae: <i>Spirogyra</i>	09
	2.2 Biofertilizers	i) Introduction, Microbes used as Biofertilizers, ii) Study of following Biofertilizers with respect to characters, association and uses of a) Bacteria: <i>Rhizobium</i> b) Blue-green algae: <i>Nostoc</i> c) Fungi: <i>Trichoderma</i> c) Pteridophytes: <i>Azolla</i> iii) Procedure for preparation of Biofertilizers- Bacteria and Blue green algae	09
Total Lectures			30

SEMESTER –I

Botany Paper II: DSC-14 A: Cell biology and Analytical techniques

**CREDIT: 2. LECTURE PERIODS: 2.5 PER WEEK- LECTURE HOURS; 2 PER WEEK
MARKS: 50**

MODULE	SUB-MODULE	TOPICS	LECTURE PERIOD
1.	Cell biology		
	1.1 Cell as a structural and functional unit of life	i) Introduction, Definition ii) Cell as biochemical entity iii) Structure and difference between Prokaryotic and Eukaryotic cell iv) Plant cell wall- structure and functions	04
	1.2 Cell organelles and cell membrane	i) Ultrastructure and functions of a) Chloroplasts b) Mitochondria c) Ribosomes d) Endoplasmic reticulum e) Lysosomes f) Peroxisomes ii) Cell membrane - Structure, Fluid Mosaic model, role of cell membrane	09
	1.3 Cell division	i) Cell cycle and its important. ii) Mitosis - Introduction, definition, stages and Significance iii) Meiosis - Introduction, definition, stages and Significance	07
2.	Analytical techniques		
	2.1 Microscopy	i) Principles of microscopy ii) Light microscopy iii) Fluorescence microscopy iv) Electron microscopy (SEM)	05
	2.2 Chromatography	i) Principles and applications of chromatography ii) Paper Chromatography- Ascending iii) Thin Layer Chromatography.(TLC)	05
Total Lectures			30

SEMESTER –II

Botany Paper III: DSC-13B: Mycology, Phytopathology and Mushroom cultivation

**CREDIT: 2. LECTURE PERIODS: 2.5 PER WEEK- LECTURE HOURS; 2 PER WEEK
MARKS: 50**

MODULE	SUB-MODULE	TOPICS	LECTURE PERIOD
1.	Mycology		
	1.1 Fungi – A)	i) General characters of fungi ii) Classification as per Ainsworth (1973) - upto class iii) Economic importance	06
	B)	Life cycle (excluding developmental stages of sex organs) of the following types- a) Zygomycotina: <i>Mucor</i> b) Ascomycotina: <i>Penicillium</i>	07
	1.2 Lichens	i) Occurrence and General characters ii) Nature of association iii) Types of lichens iv) Economic importance	04
2	Phytopathology and Mushroom cultivation		
	2.1 Phytopathology	i) Introduction and General symptoms. ii) Study of following plant diseases with respect to symptoms and control measures- a) Viral – Yellow vein mosaic of Bhendi b) Bacterial – Blight of Pomegranate c) Fungal – White rust of crucifers d) Mycoplasma (MLO)- Grassy shoot of sugarcane	06
	2.2 Mushroom cultivation	i) Introduction and History ii) Steps in cultivation of <i>Pleurotus sajor-kaju</i> iii) Commercial importance.	07
Total Lectures			30

SEMESTER –II

Botany Paper IV: DSC-14B: Archegoniate (Bryophytes, Pteridophytes and Gymnosperms)

**CREDIT: 2. LECTURE PERIODS: 2.5 PER WEEK- LECTURE HOURS; 2 PER WEEK
MARKS: 50**

MODU LE	SUB- MODULE	TOPICS	LECTURE PERIOD
1.	Archegoniate and Bryophytes		
	1.1 Archegoniate	i) Introduction, ii) Diagnostic features of archegoniate iii) Transition to land habit iv) Alternation of generation	04
	1.2 Bryophytes	i) General characters ii) Classification as per G.M. Smith (1955) upto classes iii) Ecological & Economic importance. iv) Morphology, Anatomyand life cycle (excluding developmental stages of sex organs) of Anthocerotopsida- Anthoceros	08
2	Pteridophytes and Gymnosperms		
	2.1 Pteridophytes	i) General characters ii) Classification as per G.M. Smith (1955) upto classes iii) Ecological and Economic importance iv) Morphology, anatomy (leaf and stem) and life cycle (excluding developmental stages of sex organs of a) Lycophyta – <i>Selaginella</i> b) Heterospory& Seed habitat	08
	2.2 Gymnosperms	i) General characters ii) Classification as per Sporne (1965) upto classes iii) Ecological and Economic importance. iv) Morphology, Anatomy(leaf and stem) and life cycle (excluding developmental stages of sex organs) of Gnetopsida – <i>Gnetum</i> v) Connecting link between Pteridophytes and Angiosperms	10
Total Lectures			30

Practical's of B. Sc. Part – I Botany (CBCS)

(With effect from August- 2022)

Botanical Excursion:

One teacher along with a batch not more than 20 students be taken for Botanical. Excursion to places of Botanical interest, one in each semester. If there are female students in a batch of twenty students, one additional lady teacher is permissible for excursion. T.A. and D.A. for teacher and non-teaching staff participating in excursions should be paid by the concern colleges as per University rules. Tour report duly certified by teacher concerned and Head of the Department should be submitted at the time of practical examination.

Practical Course:

B. Sc. Part – I Botany practical course is to be covered in twenty five practicals. These practicals are to be performed by the students. Each practical is to be supplemented by permanent slides, preserved / fresh specimens, materials, charts, herbarium sheets where ever necessary.

Details of Practical Examination:

- A) Practical Examination for B. Sc. I. will be conducted at the end of second semester.
- B) Every candidate must produce a certificate from Head of Department of his / her college, saying that he / she has completed practical course in satisfactory manner as per terms laid down by Academic council on the recommendations of Board of Studies in Botany. The student should record his / her observation and report of each experiment in the journal. The journal is to be signed periodically by teacher in charge and certified by the Head of Department at the end of year. Candidates have to produce their certified journal and tour report at the time of practical examination. Candidate is not allowed to appear for the practical

examination without a certified journal / a certificate from Head of Botany Department regarding the same.

C) Practical Examination should be of five hours duration and shall test a candidate in the following respect.

1. Practical study of external and internal structures of different plant types and their classification.
2. Making temporary stained preparations and identification.
3. Identification and setting of biochemical experiments.
4. Study of plant diseases as per syllabus.
5. Spotting of the specimens as per syllabus.

List of Practicals:

1. Study of microscope: Light and Electron microscope (SEM with Photograph)
2. Electron microphotographs/models of viruses – T-Phage and TMV
3. Forms of bacteria- (Temporary / permanent slides/ photographs).
4. Bacteria- Gram staining technique
5. Study of vegetative and reproductive structures of *Nostoc*
6. Study of vegetative and reproductive structures of *Spirogyra*
7. Study of different types of Biofertilizers as per theory syllabus
8. Study of vegetative and reproductive structures of *Mucor*.
9. Study of vegetative and reproductive structures of *Penicillium*.
10. Study of forms of lichen- Crustose, Foliose and Fruticose.
11. Study of Mushroom cultivation (Demonstration).
- 12.13. Study of plant diseases per theory.
14. Study of vegetative and reproductive structures of *Anthoceros*
15. Study of vegetative and reproductive structures of *Selaginella*
16. Study of vegetative and reproductive structures of *Gnetum*
17. Study of cell and its organelles with the help of electron microphotographs.
18. Study of cell structure in Onion peels (cataphyll), it's staining and mounting.
19. Study of effect of organic solvent concentrations on membrane permeability.
- 20 .Study of peroxisome (enzyme activity catalase)
21. Study of glyoxisome (enzyme activity-malate dehydrogenase)
22. Study of different stages of mitosis.
23. Study of different stages of meiosis.
24. Separation of photosynthetic pigments by ascending paper chromatography.
25. Separation of amino acids by thin layer chromatography.

Course Outcomes

CO1. Students will be able to recognize the structure, types and multiplication of viruses.

CO2. Students will be able to understand the bacterial types, structure and mode of reproduction

CO3. Students will be able to identify the different types of algae and their importance in day-to-day life.

CO4. Students will be able to develop the skills for the production of different types of Bio-fertilizers,

CO5. Students will be able to distinguish the prokaryotic and eukaryotic organisms and acquire the knowledge of different plant cell organelles and their role in the plant body.

CO6. Students will be able to understand the different types of cell division and its phases.

CO7. Students will be able to handle all types of microscope.

CO8. Students will be able to develop a skill in the chromatography techniques.

CO9. Students will be able to identify and classify the different fungi and also realize the economic importance of fungi.

CO10. Students will be able to identify the lichens on the basis of morphology and to know the medicinal value of the lichens.

CO11. Students will be able to recognize the different plant diseases and their management.

CO12. Students will be able to develop the soft skill technique in the Mushroom Cultivation and realize the commercial status of the mushrooms.

CO13. Students will be able to identify the bryophytes and their importance.

CO14. Students will be able to recognize the characters and ecological importance of pteridophytes.

CO15. Students will be able to identify, classify the gymnosperms and understand the Economic importance of gymnosperms.

(iii) Specific Objectives:-----

(iv) A brief note :- (On expected level of study from examination and assessment point of view):- ----

**(v) Recommended Reading:
(In MLA/APA Style Sheet Format)**

a) Basic Reading :-

b) Additional Reading :-

c) References :-

d) Books

List of Books Recommended for B. Sc. I Botany

Algae –

1. Introductory Phycology. Kumar, H. D. 1988, Affiliated East-West Press Ltd., New York.
2. Algae - Kumar H. D. and H. N. Singh (1991)
3. Algae - Sharma O. P. (1986)
4. Algae - Pandey B. P. (1994)
5. A Text book of Algae - Chopra G. L. (1969)
6. A Text book of Algae - Kumar H. D., Singh H. N. (1977)
7. A Text book of Botany - V. Singh, P. C. Pandey, Jain D. K. (1999)
8. A Text book of Botany Vol. I – Pandey S. N., S. P. Misra, P. S. Trivedi (1.982)
9. A Treatise on Algae - K. N. Bhatia (1980)

Fungi –

1. A Hand book of Lichens - D. D. Awasthi (2000)
2. An Introduction to Fungi - Dube H. C. (1990)
3. Morphology of Plants and Fungi --Blod, H.C., Aloxiopoulos, G. J. and Delevoryas, T. 1980. (4th Edition) Harper and Foul Co., New York.
4. An Introduction to Fungi.--Dube, H. C. 1990. Vikas Publishing House Pvt. Ltd., Delhi.
5. Cryptogamic Botany Vol. I & II (2nd Edition), Gilbert, M. S. 1985. Tata McgrawHill Publishing Co., Ltd New Delhi.
6. Fungi- Vashishtha B. R. (1996)
7. Fungi- Pandey B. P. (1994)
8. Introduction to Fungi - Sundrarajan (2001)

9. Introductory Mycology - C. J. Alexopoulos, C. W. Mims, M. Blackwell
10. Cryptogamic Botany Vol. I - Algae and Fungi - G. M. Smith (1974)
11. Plant diseases –Singh R. S. (1963).
12. Manual of plant pathology –Padoley S. K. & Mistry P. B.
13. Hand book of field crop diseases- Ny. Vall (1979).
14. Experiments in Microbiology, Plant pathology and Tissue culture- Aneja K. R. (1993).
15. Plant pathology- R. S. Mehrotra, (1980) Dean, Faculty of science, Kurukshetra University, Kurukshetra.
16. Plant Diseases- F.T. Brooks, periodical Expert book Agency, D-42, VivekVihar, Delhi 1100032.
17. Plant diseases –RajaniSharma, Campus books international, 4831/24 Prahlad Street, An sari Road, Daryaganj, New Dehli-110002.
18. Diseases of crop plant in India –Dr. Rangaswami.
19. Plant diseases –R.S. Singh
20. Modern plant pathology – R. S. Bilgrami and H. C. Dube.

Bryophytes –

1. Bryophytes. Puri, P. 1985. Amarm& Sons, Delhi.
2. College Botany - S. Sundararajan (1999)
3. College Botany Vol. I - Gangulee H. C., Das K. S. and Datta C. T. (1991)
4. College Botany Vol. II - Gangulee H. C., Kar A. K. (1999)
5. College Botany Vol. III -- S. K. Mukharji (1990)
6. Cryptogamic Botany Vol. I- G. M. Smith (1955)
7. Cryptogamic Botany: Bryophytes and Pteridophytes - Smith G. C. (1955)

Pteridophytes—

1. An Introduction to Pteridophytes - Rashid A. (1978)
2. An Introduction to Pteridophyta (Diversity and Differentiation) -A. Rashid (1976)
3. A Text book of Pteridophyte – S. N. Pandey, P. S. Trivedi, S. P. Misra (1995)
4. An Introduction to Embryophyta - Parihar N. S. (1961)
5. Morphology and Evolution of Vascular Plants Gifford, E. M. and Foster, A. S. 1989. W.H. Freeman & Co., New York.
6. Morphology of vascular Plant (lower groups) -- A. J. Eames.
7. Illustrated Manual of Ferns of Assam -S. K. Borthakur, P. Deka, K. K. Nath (2000)
8. Pteridophyta – Vascular Cryptogams - P. C. Vashishta (1972)
9. Botany for Degree Students- Pteridophyta (Vascular Cryptogams) - P. C. Vashishta, A. K. Sinha, Anil Kumar – S Chad –Multicolour Illustrative Revised Edition- 2006.

Gymnosperms –

1. Botany for Degree Students- Gymnosperms (Vascular Cryptogams) - P. C. Vashishta, A. K. Sinha, Anil Kumar – S Chad –Multicolour Illustrative Revised Edition- 2006.
2. The Morophology of Gymnosperms. -- Sporne, K. R. 1991. B. I. PublicationsPvt., Bombay, Calcutta, Delhi.
3. Morphology of Gymnosperms -- J. M. Coulter and C. J. Chamberlain.
4. Gymnosperms – Structure & Evolution.--C. J. Chamberlain
5. Morphology of Gymnosperms.--K. R. Sporne.

6. Gymnosperms- Vashishta P. C. (1976)
7. Gymnosperms- C. J. Chamberlein (1966)
8. Indian Gymnosperms in Time and Space - Ramanujan C. G. K. (1979)
9. Origin and Evolution of Gymnosperms - Ed Charles B. Beck (2002)
10. Phylogeny and form in the plant Kingdom - H. C. Dittmer (1964)

Cytology, Microbiology and Analytical Techniques-

1. Plant Cell Biology –Structure and function-Gunning B.E.S and Steer M.W. (1996).
2. Plant Cell Biology-A practical approach.-Harris N. and Oparka K. J. (1994).
(IRL-Press of oxford University UK.).
3. Cell Biology- De. Robert et.al. (1982), (Publ. Sundar and Company).
4. Cell Biology –C. B. Powar (1992), Himalaya Publ. House, Delhi.
5. Plant Biochemistry-Cell-Sumps P.K. and Connie's. (1981).
6. Molecular Cell Biology-Albert's B. Bray D. Lewis J. Faff M. Robert K. & Watson J.D. (1999). (Publ. Garlands publishing co-In, New York U.S.A.)
7. Text Book of cell and molecular biology –Gupta P.K. (1999), Rastogi publication, Meerat.
8. Molecular and Cellular Biology-Wolfe S.L. (1993), Wadsworth publishing Company, California, U.S.A.
9. Applied Microbiology- Vinita Kale and Kishore Bhusari (2007) Himalaya Publishing House, Mumbai.
10. Virology- Saravanan P. MJP, Publishers, Chennai. 600005.
11. Chromatographic Methods- Stock, R. and C. B. F. Rince (1978).
12. Biological Techniques- Srivastava, H. S. (1999).

C] OTHER FEATURES:

1. INTAKE CAPACITY / NUMBER OF STUDENTS:-

As per university rules.

2. TEACHERS QUALIFICATIONS:-

- As prescribed by norms.
 - However required number of core faculty should be given for particular course along with paper wise and Specialization wise work load allocation.
 - Work load details should be as per Apex body/UGC/State Govt./University norms.
3. **The Board of studies should clearly mention the required Books, Journals and specific Equipments necessary for the Course.**

(A) LIBRARY: Library be equipped with the required Reference and Text Books, Journals and Periodicals for higher and advanced studies as per stated in revised syllabus and approved by BOS.

(B) SPECIFIC EQUIPMENTS:

T.V., V.C.R. V.C.P., L.C.D., Overhead Projector, Computers and necessary software and operating systems etc. are necessary to run the course

(C) LABORATORY SAFETY EQUIPMENTS:

- i) Fire extinguishers at least two sets in each laboratory of 600 sq.ft. Area.
- ii) Leakage of gases be avoided.
- iii) First aid kit be made available.
- iv) Sugar / Glucose –500gm pack- a pinch of sugar and a cup of drinking water in hypoglycemic condition or in extreme weakness of student or a person concerned

B) GENERAL SAFETY RULES FOR LABORATORY WORK

1) List of equipments needed for Laboratory Safety:-

- 1. Fire extinguisher
- 2. First Aid Kit
- 3. Good ear thing and insulated wirings for electrical supply.
- 4. Emergency exit
- 5. Apron and goggles wherever necessary
- 6. Fuming Chambers
- 7. Masks flows and shoes while handling hazardous chemicals & gases (Good valves, manometers and regulators for gas supply)
- 8. Operational manuals for instruments (handling to be made as suggested.)
- 9. Rules of animals and blanks ethics.
- 10. Leakage of gases to be avoided.
- 11. Cylinders or flow pipes to handle Acids.
- 12. No weighing for NaOH and hygroscopic substances.
- 13. Stabilized supply in the laboratory.

2) There Is No Substitute for Safety

- 1. Any injury no matter how small, it must be reported to teacher immediately.
- 2. a) In case any chemical enters your eyes go immediately to eye- wash facility and flush your eyes and face with large amount of water.
b) For acid or phenol split, do not use water instead put some bicarbonate.
- 3. In case of fire, immediately switch of all gas connections in the laboratory and pour sand on the source of fire or cover it with asbestos or cement sheet.
- 4. While leaving laboratory, make sure that gas, water taps and electricity are switched off.
- 5. Remove your lab coat. Gloves and clean your hands before leaving laboratory.

6. Make your workplace clean before leaving the laboratory.
7. Keep your hands away from your face, while working in laboratory.
8. Each laboratory must have a first aid box.
9. Know what to do in case of emergency - e.g.
(a) Know the place of fire extinguisher and first aid box.
10. Don't use cell phones in the laboratory.
(a) Remember important phone numbers

3) DO's

1. Always wear lab coat, shoes in the laboratory. Every student must have their weight box, a napkin etc.
2. Maintain separate record book for each subject.
3. Keep your belongings at the place allotted for the same.
4. Maintain silence, order, cleanliness and discipline in the laboratory.
5. Work at the place allotted to you or specially used for certain operations.
6. Keep the working table clean.
7. Handle the laboratory equipments, glassware and chemical with great care.
8. Use only required quantities of material and apparatus of essential size.
9. Perform the test in their proper order.
10. Know the location of eye wash fountain and water shower.
11. Minimize your exposure to organic solvents.
12. The Metal like sodium should be kept under kerosene or liquid paraffin layer in a vessel with a cork stopper.
13. Sodium metal should be cut on dry filter paper. The cut off pieces of sodium should be immediately collected in a vessel containing kerosene or liquid paraffin.
14. Always pour acid into water when diluting and stir slightly.
15. All operations involving poisonous flammable gases and vapours should be carried out in the flame chamber (with exhaust facility)
16. Ladies should avoid wearing saree. If it is there, apron is essential.

4) DON'T

1. Don't work alone in the laboratory
2. Don't leave the glass wares unwashed.
3. Don't take apparatus, chemicals out of lab.

4. Don't leave any substance in a vessel or bottle without label.
5. Don't weigh the reagent directly on the balance pan.
6. Don't throw the cut off pieces of sodium metal in sink or water. Transfer it immediately in its container.
7. Don't take sodium metal with hands. Use forceps.
8. Don't panic and run in case of fire. Use the fire extinguishers or sand buckets.
9. Don't breathe the vapours of organic solvents.
10. Don't pour any unused reagent back in its stock bottle.
11. Don't eat or drink any food in laboratory.
12. Don't use inflammable solvents like benzene, ether, chloroform, acetone and alcohol around flame.
13. Don't distill to dryness.
14. Don't exchange stoppers of flasks and bottles containing different reagents.
15. Don't leave reagent bottle lying on the table.
16. Don't disturb the order of reagent bottles in which they are placed.
17. Don't bring reagent on your working table from the general shelf.
18. Don't throw burning matchstick into dustbin.
19. Don't leave the laboratory without permission.

5) LABORATORY / FIELD WORK CARE AND SAFTY FOR BOTANY STUDENTS

1. Unnecessary wastage of plant material during practicals should be avoided.
2. During study tour / personal collection, more emphasis be given on study of plants in nature and collection of wild plants should not be carried out.
3. If at all the collection of the plant material is needed, it should be carried out under supervision of concerned teacher. Collection of poisonous plants / poisonous mushrooms should be avoided.
4. Oral intake of unknown plant material, out of curiosity, during practical or collection tour is strictly prohibited.
5. If there is any allergic reaction while handling the plants / plant parts / pollen grains / fungal specimens it should be immediately brought to the notice of the concerned teacher and reported to the registered medical practitioner.
6. Wearing of hand gloves (and mask) is essential while handling poisonous plants / herbarium sheets / toxic and hazardous chemicals / reagents / strong acids / strong alkalis

during the experiment should be made with vacuum pipette / auto pipette / burette under the supervision of concerned teacher / lab assistant.

7. Highly inflammable organic solvents (alcohol, acetone etc.) should not be kept in vicinity of spirit lamp.
8. The laboratory safety measures adopted for handling of hazardous chemicals in chemistry practicals should be followed for conducting practicals in plant biochemistry / microbiology.
9. Operational manuals for equipments such as centrifuge, autoclave, spectrophotometer should be followed.
10. In case of minor injuries, preliminary treatment should be undertaken with the help of first aid kit available in the laboratory. In case of serious injury, concerned teacher should be immediately contacted for consultation to the physician.
11. The instruction report for breeding, experimentation will be submitted in a week period. (Which are laid down by Ministry of Social Justice & Empowerment and Ministry of Environment and Forests, Govt. of India).

PROGRAM SPECIFIC OUTCOMES (PSO) OF BOTANY:

In life science plant science is one of the most important basic and applied subject. Plants synthesized their own food material and provides the food and oxygen to all living organism. Most of the basic requirements fulfilled by the plants. This course has been designed to give the fruitful knowledge and to develop the commercial soft skills in the various aspects of plant science.

PSO 1: Understanding the classification of all higher and lower plants. Plant diseases and their management.

PSO 2: Understand the structure and function of different cell organelles and the role of cell membrane, plant anatomy, taxonomy and ecology.

PSO 3: Understand the skills for the production of Bio fertilizers and mushroom culture techniques.

List of Skill Enhancement courses.

- ❖ Soil and Water Analysis
- ❖ Handicrafts: Bamboo products
- ❖ Nature and wildlife photography.
- ❖ Bioprospecting of medicinal plants
- ❖ Aurvedic preparations
- ❖ Gardening and it's management.

Link for the pool of SEC courses from

National Skills Qualification Framework (NSQF)

(You may add or delete any courses as per available facilities)

https://drive.google.com/file/d/176Vwvx4SC2ONrt69XADruzI2qnfBPI_o/view?usp=sharing

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

**Revised Syllabus For
Bachelor of Science
Part-II
Botany
CBCS PATTERN**

**Syllabus to be implemented from
June, 2019 onwards.**

A] Ordinance and Regulations: (As applicable to Degree Course)

B] Shivaji University, Kolhapur
Revised Syllabus For
Bachelor of Science

1. TITLE : Subject- Botany
Optional under the Faculty of Science

2. YEAR OF IMPLEMENTATION:- Revised Syllabi (As per CBCS) will be implemented from June 2019 onwards.

3. PREAMBLE:-

[**Note :-**The Board of Studies should briefly mention foundation, core and applied components of the course/paper. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge at examination level.]

4. GENERAL OBJECTIVES OF THE COURSE:
(as applicable to the Degree concerned)

Objectives:-

- 1) To impart knowledge of Science is the basic objective of education.
- 2) To develop scientific attitude is the major objective to make the students open minded, critical, curious.
- 3) To develop skill in practical work, experiments and laboratory materials and equipments along with the collection and interpretation of scientific data to contribute the science.
- 4) To understand scientific terms, concepts, facts, phenomenon and their relationships.
- 5) To make the students aware of natural resources and environment.
- 6) To provide practical experience to the students as a part of the course to develop scientific ability to work in the field of research and other fields of their own interest and to make them fit for society.
- 7) To The students are expected to acquire knowledge of plant and related subjects so as to understand natural phenomenon, manipulation of nature and environment in the benefit of human beings.
- 8) To develop ability for the application of the acquired knowledge to improve agriculture and other related fields to make the country self reliant and sufficient.
- 9) To create the interest of the society in the subject and scientific hobbies, exhibitions and other similar activities.

5. DURATION

The course shall be a full time course.

6. PATTERN:-

Pattern of Examination will be Semester.

- 7. FEE STRUCTURE :-**
As per Government /University rules.
1. Refer brochure and prospectus of concern affiliated college/institute to Shivaji University, Kolhapur.
2. Other fee will be applicable as per rules and norms of Shivaji University, Kolhapur.

- 8. ELIGIBILITY FOR ADMISSION:**
As per guidelines obtained from Shivaji University, Kolhapur by following rules and regarding reservations by Govt. of Maharashtra.

- 9. MEDIUM OF INSTRUCTION:**
The medium of instruction shall be in English.

- 10. STRUCTURE OF COURSE- B. Sc. II Botany**

SECOND YEAR (SEMESTER III/IV) (NO.OF PAPERS IV)

Sr. No.	Subjects/Papers	Theory	Internal	Total Marks
1.	Paper-V	50	--	50
2.	Paper-VI	50	--	50
3.	Paper-VII	50	--	50
4.	Paper-VIII	50	--	50
	Practical -I			50
	Practical -II			50
	Total			300

- 11. SCHEME OF TEACHING AND EXAMINATION:-**

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

SECOND YEAR - SEMESTER – III/ IV : Botany (Optional)**Scheme of Teaching and Examination**

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/Week)				ExaminationScheme (Marks)		
		L	T	P	Total	Theory	Term Work	Total
	Semester-III							
1	Paper-V	3	-	-	03	50	--	50
2	Paper-VI	3	-	-	03	50	--	50
	Semester-IV							
3	Paper-VII	3	-	-	03	50	--	50
4	Paper-VIII	3	-	-	03	50	--	50
	Practical- I (annual)	-	-	4	04	-	-	50
	Practical- II (annual)	-	-	4	04	-	-	50
	Total	06	-	08	14	-	-	300

12. SCHEME OF EXAMINATION :-

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 50 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 50 marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. STANDARD OF PASSING:-

As Prescribed under rules & regulation for each degree.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Q. 1. Multiple choices questions (10-questions) --- 10 Marks

Q.2. Attempt **any two** of the following.

(Essay type/Broad answer questions) ---- 20 Marks

Q.3. Write short notes (**any four**) --- 20 Marks

15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS- (FOR REVISED SYLLABUS)

(Introduced from June 2019 onwards)

Old Syllabus (Semester pattern)		Revised Syllabus (Semester pattern)		
Paper No.	Title of Old Paper	Semester No	Paper No.	Title of New Paper
V	Algae, Fungi, Bryophytes and Industrial applications	Semester- III	V	Embryology of Angiosperms
VI	Plant Physiology, Ecology and Horticulture		VI	Plant Physiology
VII	Pteridophytes, Gymnosperm, Angiosperm and Anatomy	Semester- IV	VII	Plant Anatomy
VIII	Cytogenetics and Utilization of Plant Resources		VIII	Plant Metabolism

16. SPECIAL INSTRUCTIONS, IF ANY.

SEMESTER- III
Botany Paper V: DSC C13: EMBRYOLOGY OF ANGIOSPERMS
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK- LECTURE HOURS: 2.4 PER
WEEK, MARKS: 50

UNIT	SUB-UNIT	TOPICS	LECTURE PERIOD
1	STRUCTURAL ORGANIZATION OF FLOWER, POLLINATION AND FERTILIZATION		22
	1.a: Organization of flower	1.1: Concept of flower as a modified Shoot, structure of typical flower. 1.2: Structure of typical androecium, Structure of tetrasporangiate anther and pollen grain. 1.3: Structure of typical gynoecium: Structure of a typical ovule, Types of ovules.	10
	1.b: Pollination and Fertilization	1.4: Definition, Types and mechanism in Anemophily (<i>Zea mays</i>), Entomophily (<i>Calotropis</i>) and Hydrophily (<i>Vallisneria</i>) 1.5: Microsporogenesis, pollen germination and male gametophyte 1.6: Megasporogenesis, structure of embryo sac: Monosporic (<i>Polygonum</i>) and Bisporic (<i>Allium</i>), female gametophyte. 1.7: Fertilization: Entry of pollen tube, double fertilization and triple fusion. Significance of double fertilization.	12
2	Embryo and Endosperm Development; Polyembryony and Apomixis		23
	2.a: Embryo and Endosperm Development	2.1: Structure and development of embryo in Monocotyledons. 2.2: Structure and development of embryo in Dicotyledons. 2.3 Development of endosperm, Types of endosperm- Nuclear, Helobial and Cellular	12
	2.b: Polyembryony and Apomixis	2.4: Polyembryony: Introduction, Types of polyembryony- True polyembryony (Cleavage and Adventive), False polyembryony. Causes of polyembryony, Significance of polyembryony. 2.5: Apomixis: Introduction, Causes of apomixes and Types: Gametophytic and Sporophytic, Significance of apomixis.	11
	TOTAL		45

SEMESTER- III
Botany Paper VI: DSC C14: PLANT PHYSIOLOGY
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK- LECTURE HOURS: 2.4 PER
WEEK, MARKS: 50

UNIT	SUB-UNIT	TOPICS	LECTURE PERIOD
1	PLANT WATER RELATIONSHIP AND MINERAL NUTRITION		22
	1.a: Plant water relationship	1.1: Introduction, Physiological importance of water. 1.2: Water transport process: Mechanism of water absorption: active and passive absorption theories, water transport through xylem and tracheids. 1.3: Transpiration: Definition, Types of transpiration, Mechanism of stomatal movement, Starch-sugar hypothesis, Factors affecting transpiration, Significance of transpiration.	12
	1.b: Mineral nutrition	1.4: Introduction, Macro and Micronutrients 1.5: Criteria of essentiality 1.6: Mineral nutrient uptake- Passive uptake (Diffusion), Active uptake (Carrier Concept) 1.7: Role and Deficiency Disorders of Macronutrients (P, K, Ca, Mg) and Micronutrients (Fe, Mn) in plants and its recovery.	10
2	PHOTOSYNTHESIS, GROWTH AND DEVELOPMENT		23
	2.a: Photosynthesis	2.1: Introduction 2.2: Photosynthetic pigments- (Chlorophylls, Carotenoids and Phycobilins) 2.3: Mechanism of Photosynthesis: a) Light reaction- Photolysis of water, Photosystem I and Photosystem II, Electron transport and Photophosphorylation- Cyclic and Non-cyclic. b) Dark reaction: C ₃ , C ₄ and CAM pathways of carbon fixation. 2.4: Significance of photosynthesis	11
	2.b: Growth and Development	2.6: Definition, Region of growth, Phases of growth, growth curve, Grand period of growth. 2.7: Plant growth regulators: Discovery, site of synthesis, Physiological (Practical applications) roles of growth regulators –	12

		<p>Auxins, Gibberellins and Absciscic acid.</p> <p>2.8: Plant responses to light and temperature –</p> <p>a) Photoperiodism: Concept, Definition, Photoperiodic classification of plants- LDP, SDP, DNP.</p> <p>b) Mechanism of photoperiodism: Photoperiodic induction, perception of stimulus, role of Phytochrome, flowering hormone-Floregin concept, significance of photoperiodism.</p> <p>2.9: Vernalization: Concept, mechanism, site of vernalization and its significance.</p>	
	TOTAL		45

SEMESTER- IV
Botany Paper VII: DSC D13: PLANT ANATOMY
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK- LECTURE HOURS:
2.4 PER WEEK, MARKS: 50

UNIT	SUB-UNIT	TOPICS	LECTURE PERIOD
1	ORGANIZATION OF HIGHER PLANT BODY AND TISSUES		22
	1.a: Organization of higher plant body	1.1: The Plant organs 1.2: Development of plant body 1.3: Internal organization	10
	1.b: Meristematic and Permanent Tissue	1.4: Meristem: a) Introduction, Characteristics and Classification of meristems based on position b) Theories of structural development- i) Apical cell theory ii) Histogen theory iii) Tunica Corpus theory. 1.5: Permanent tissue: i) Simple tissue- Parenchyma, Collenchyma and Sclerenchyma ii) Complex tissue: Xylem and Phloem 1.6: Types of Vascular bundles	12
2	PRIMARY AND SECONDARY STRUCTURE OF PLANT BODY AND TISSUE SYSTEMS		23
	2.a: Primary and secondary structure of plant body	2.1: Primary structure of Monocotyledon and Dicotyledon root, stem and leaf. 2.2: Normal secondary growth in Dicotyledon root and stem. 2.3: Anomalous secondary growth in <i>Bignonia</i> (Dicot.) and <i>Dracaena</i> (Monocot.) stem. 2.4 : Periderm and Lenticel	12
	2.b: Tissue systems	2.5 : Epidermal tissue system 2.6: Secretory tissue system 2.7: Mechanical tissue system	11
	TOTAL		45

SEMESTER- IV
Botany Paper VIII: DSC D14: PLANT METABOLISM
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK- LECTURE HOURS:
2.4 PER WEEK, MARKS: 50

UNIT	SUB-UNIT	TOPICS	LECTURE PERIOD
1	ENZYMES AND NITROGEN METABOLISM		22
	1.a: Enzymes	1.1 : Introduction 1.2 : Classification and Nomenclature of enzymes 1.3 : Structure and properties of enzymes 1.4 : Mechanism of enzyme action- Lock and Key hypothesis and Induced fit hypothesis. 1.5: Factors affecting enzyme activity- temperature and pH. 1.6: Enzyme inhibition	12
	1.b: Nitrogen Metabolism	1.7: Introduction 1.8: Biological Nitrogen Fixation- Asymbiotic and Symbiotic 1.9: Mechanism of Nitrogen Fixation 1.10: Nitrate reduction 1.11: Ammonia assimilation 1.12: nif genes	10
2	RESPIRATION, SEED DORMANCY AND GERMINATION		23
	2.a: Respiration	2.1: Introduction 2.2: Types of respiration 2.3: Glycolysis 2.4: Formation of Acetyl Co A 2.5: TCA cycle 2.6: ETS in mitochondria 2.7: Fermentation	12
	2.b: Seed Dormancy and Germination	2.8: Concept of dormancy 2.9: Causes of dormancy 2.10: Methods of breaking of seed dormancy. 2.11: Seed germination- Introduction and types (Epigeal, Hypogeal and Viviparous). 2.12: Factors affecting seed germination 2.13: Biochemical changes during seed germination.	11
	TOTAL		45

PRACTICALS IN BOTANY
B.Sc. Part – II
(To be implemented from June 2019)

Botanical excursions –

One teacher along with a batch not more than 20 students is taken for Botanical excursions to places of botanical interest, one in each term. If there are female students in a batch of sixteen, one additional lady teacher is permissible for excursion. Each excursion will not be more than 3 days during college working days. T.A. and D.A. for teachers and non teaching staff participating in the excursions should be paid as per the rules. The tour report duly certified by the concerned teacher and the head of the department should be submitted at the time of practical examination.

Details of Practical Examination

B. Sc. II Botany Practical – I and II are to be covered in 25 practicals each. These practicals are to be performed by the students. Each practical is to be supplemented by permanent slides, preserved / fresh specimens / materials, charts, herbarium sheets, wherever necessary.

Every candidate must produce a certificate from Head of the Department in his / her college stating that he / she has completed practical course in a satisfactory manner as per the lines laid down by academic council on the recommendations of Board of Studies in Botany. The student should record his / her observations and report of each experiment should be written in the Journal.

The Journal is to be signed periodically by teacher in charge and certified by Head of the Department at the end of the year. Candidates have to produce their certified journal and tour reports at the time of practical examination. A candidate will not be “**allowed to appear**” for the practical examination without a certified journal, otherwise a candidate must produce a separate certificate of his / her regular attendance for practical course and completion of the same signed by the concerned teacher and Head of the Department.

Total Marks for practical 100 Marks

- a) Practical – I - 50 Marks
- b) Practical – II - 50 Marks

The practical course is to be covered in 50 practicals. The practical course should be divided into practical no. I which will comprise 25 practicals based on Paper No. V & Paper No. VI where as the practical No. II will comprise 25 practicals based on Paper No. VII & VIII. The practical No I will carry 50 marks & practical II will also carry 50 marks. The practical examination will be conducted at the end of semester IV on two successive days.

Each practical examination (Practical I and II) should be of maximum 5 hours duration and shall test a candidate in respect of following –

- i. Identification and preparation of temporary and permanent slides.
- ii. Practical study of external and internal structures of different plants as per the syllabus.
- iii. Understanding of principles of the experiments.
- iv. Identification and setting of Physiological experiments.
- v. Recording of observations and conclusions.
- vi. Identification and understanding of the practicals conducted with respect to development of plants.
- vii. Spotting of the specimens as per the syllabus.
- viii. Submission of the tour report.

Practical- I

- 1) Study of structure of stomata and determination of stomatal density.
- 2) Study of stomatal and cuticular transpiration by cobalt chloride paper method.
- 3) Study of role and deficiency symptoms of P, K, Ca, Mg.
- 4) Estimation of Chlorophylls by Colourometric / Spectrophotometric method.
- 5) Separation of photosynthetic pigments by ascending paper chromatography.
- 6) Study of Kranz leaf anatomy in C₄ plants.
- 7) Estimation of TAN value in CAM plants.
- 8) Analysis of vegetative growth (any suitable method).
- 9) Effect of different concentrations of Auxins (IAA) on seed germination (any suitable dicot seeds).
- 10) Effect of different concentrations of Gibberellic acid (GA) on seed germination (any suitable monocot seeds).
- 11) Study of evolution of oxygen during photosynthesis.
- 12) Study of effect of light intensity on photosynthesis.
- 13) Demonstration of ascent of sap in plants (*Impatiens* sp. and *Polyanthus tuberosa*).
- 14) Detection of Calcium, Phosphate, Potassium and Iron in the plant tissue by biochemical tests.
- 15) Demonstration of Endo-osmosis and Exo-osmosis.
- 16) Determination of sugar percentage by hand refractometer.
- 17) Study of permeability of plasma membrane by using different concentrations of organic solvent.
- 18) Study of typical flower and its parts (floral whorls with their functions).
- 19) Study of young / mature anther by permanent slide.
- 20) Study of germination of pollen grains.
- 21) Detection of pollen fertility by staining technique.
- 22) Study of types of ovules (by permanent slide or photograph).
- 23) Study of dicotyledon and monocotyledon embryo (by permanent slide or photograph).
- 24) Dissection of embryo / endosperm from developing seeds (*Grevillia* / *Cucumis*).

Practical- II

- 1) Study of shoot and root apex by permanent slides.
- 2) Study of simple tissues.
- 3) Study of complex tissues.
- 4) Study of primary structure of dicot and monocot root
- 5) Study of primary structure of dicot and monocot stem
- 6) Study of normal secondary growth in dicot stem (*Annona* / *Moringa* / Sunflower) by temporary double stained preparation.
- 7) Study of anomalous/abnormal secondary growth in *Bignonia* (Dicot stem).
- 8) Study of anomalous/abnormal secondary growth in *Dracaena* (Monocot stem).
- 9) Study of periderm and lenticels (by permanent slides)
- 10) Double stained permanent micro preparation of any suitable material.
- 11) Study of anatomy of porous (ring porous & diffused porous) and non porous wood.
- 12) Maceration technique.
- 13) Study of Epidermal tissue system.
- 14) Study of Mechanical tissue system.
- 15) Study of Secretary tissue system.
- 16) Study of following anatomical peculiarities viz., aerenchyma, sunken stomata, multiple epidermis, stellate hairs, glandular hairs, nectaries, I-girdles.
- 17) Study of excretory products viz., Cystolith, Sphaeroraphides, Raphides in plants.
- 18) Determination of rate of respiration during seed germination by Ganong's respirometer.
- 19) Breaking of seed dormancy by mechanical and chemical scarification.
- 20) Study of effect of pH on Catalase enzyme activity.
- 21) Study of effect of temperature on Malate dehydrogenase enzyme activity.
- 22) Janus green B staining technique for mitochondria.
- 23) Demonstration of fermentation.
- 24) Study of biofertilizers.
- 25) Separation of Amino acids by Thin Layer chromatography.

Plant Physiology and Metabolism

1. Hopkins, W. G. 1995. Introduction to Plant Physiology. John Wiley & Sons, Inc., New York, USA.
2. Moore, T. C. 1989. Biochemistry and Physiology of Plant Hormones. (2nd edition). Springer – Verlag, New York, USA.
3. Salisbury, F.B. and Ross, C. W. 1992. Plant Physiology. (4th edition). Wadsworth Publishing Co., California, USA. 19
4. Taiz, L. and Zeiger, E. 1998. Plant Physiology. (2nd edition) Sinauer Associates, Inc., Publishers, Massachusetts, USA.
5. R.C. Grewal – Plant Physiology. Campus Books International 483/24, Prahiad street Ansari Road, Darya ganj, New Delhi – 110002.
6. V.K. Jain – Fundamentals of Plant Physiology. S. Chand & Company Ltd. Ramnagar, New Delhi – 110055.
7. Salisbury Ross – Plant Physiology. CBS, Publishers & Distributions 485/ Jain Bhawan, Bhole Nath Nagar, Shahdara, New Delhi – 110032.
8. Devlin & Witham – Plant Physiology. CBS Publishers & Distributors 485, Jain Bhavan, Bhole Nath Nagar, Shahdara, New Delhi – 110032.
9. G. Ray Noggle / G. Fritz- Introductory Plant Physiology. Prentice Hall of India Ltd. New Delhi – 110001.
10. V.Verma. Text Book of Plant Physiology. Emkay Publications., B-19, East KrishnaNagar, Delhi-1100051.
11. V.I. Paladin. Plant Physiology. Arihant Publishers. Jaypur, (India)
12. Dr. S. Sundara rajan- Physiology of Transport in Plants. Anmol Publications, Pvt. LTD. New Delhi.110002.
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- 15.Devlin, R.M. and F.H. Witham. 1983. Plant Physiology. Willard Grant Press. U.S.A.
- 16.Hans-Walter Heldt. 1997. Plant Biochemistry and Molecular Biology. Oxford University Press, New York. Usa.
17. Jain, V.K. (2000): Fundamentals Of Plant Physiology ,S.Chand&Co, New Delhi.
18. Pandey, S.N. (1991): Plant Physiology, Vikas Publishing House (P) Ltd., New Delhi, India.
19. Verma, V. (2007): Text Book of Plant Physiology. Ane Books India, New Delhi.
20. Nobel, P.S. 2009. Physicochemical and Environmental Plant Physiology.4th edition Academic Press, UK
21. Taiz, L. and Zeiger, E. 2006. Plant Physiology. 4th Edition. Sinauers Associates, Saunders land, Massachusetts, USA
22. Helgi OPik, Stephen A. Rolfe, Arthur J. Willis. 2005. The Physiology of Flowering Plants, Cambridge University Press, UK
23. Kirkham, M.B. 2004. Principles of Soil and Plant Water Relations. Elsevier, Amsterdam, Netherlands.
24. Dennis, D.T., Turpin, D.H., Lefebvre, D.D. and Layzell, D.B. 1997. Plant Metabolism. 2nd Edition. Longman Group, U.K.
25. Fitter, A. and Hay, R.K.M. 2001. Environmental Physiology of Plants. Academic Press, UK.
26. Emil Tmog, Mineral Nutrition of Plants. Oxford and IBH Publishing House, Bombay/ New Delhi.
- 27.S. Sundara rajan- Plants Physiology. Anmol Publications, Pvt. LTD.New Delhi.110002.

Angiosperm Anatomy and Embryology

1. P.C. Vashista. - Plant Anatomy. Pradip Publications, Opposite Sitla mandir, Jalandhar-144008.
2. B.P.Pandey - Plant Anatomy. S.Chand & Company,LTD. Ram Nagar, New Delhi.110055.
3. A.C.Datta. - Botany For Degree Students. Press-Delhi, Bombay, Madrass
4. Carlquist, S. 1998.- Comparative Wood Anatomy: Systematic, Ecological and Evolutionary Aspects of dicotyledonous Wood.Springer – Verlag, Berlin.
5. Culter, E.G. 1969. Part I.- Cells and Tissues. Edward Arnold, London.
6. Culter, E.G. 1971. Part II- Organs.- Plant Anatomy: Experiment and Interpretation. Edward Arnold, London.
7. Esau, K. 1977. - Anatomy of Seed Plants. 2nd edition, John Wiley and Sons, New York.
8. Fahn, A. 1974. - Plant Anatomy. 2nd edition. Pergamon Press, Oxford.
9. Lyndon, R.F. 1990. - Plant Development: The Cellular Basis. Unwin Hyman, London.
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11. Nair, M.N.B. 1998. - Wood Anatomy and Major Uses of Wood. Faculty of Forestry, Universiti Putra Malaysia, 43400 Serdang, Selangor D.E., Malaysia.
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13. Raven, P.H., Evert, R.F.and Eichhorn, S.E. 1999. - Biology ofPlants. 5th edition. W.H., Freeman and Co., Worth Publishers, New York.
14. Steeves, T.A. and Sussex, I.M. 1989. - Patterns in Plant Development. 2nd edition. Cambridge University, Press, Cambridge.
15. Thomas, P. 2000. - Trees: Their Natural History. Cambridge University Press, Cambridge.
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20. Pijush Roy. Plant Anatomy. New Central Book Agency Ltd, Kolkata
21. Pandey S N and Ajanta Chadha. Plant Anatomy and Embryology.Vikas Publishing House,Pvt, Ltd, New Delhi
22. Bhojwani S S and Bhatnagar S P. An Embryology of Angiosperms.
23. Maheshwari P. An introduction to Embryology of Angiosperms.
24. Nair P K K. Essentials of Palynology.
25. S. C. Datta. Systematic Botany. New Age International Publishers, New Delhi. (2015).

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

Bachelor of Science (B.Sc.) Part III

Botany

CBCS PATTERN

Syllabus to be implemented from

June, 2020 onwards

Paper -IX, X, XI, XII - (Semester- V)

and

Paper -XIII, XIV, XV, XVI - (Semester-VI)

A] Ordinance and Regulations: (As applicable to Degree Course)

**B] Shivaji University, Kolhapur
Revised Syllabus For Bachelor of Science**

**1. TITLE : Subject- Botany
Optional under the Faculty of Science**

2. YEAR OF IMPLEMENTATION: - Implemented from June 2020 onwards.

3. PREAMBLE:-

[**Note:-**The Board of Studies should briefly mention foundation, core and applied components of the course/paper. The student should get into the prime objectives and expected level of study with required outcome in terms of basic and advance knowledge at examination level.]

**4. GENERAL OBJECTIVES OF THE COURSE:
(As applicable to the Degree concerned)**

Objectives:-

- 1) To impart knowledge of Science is the basic objective of education.
- 2) To develop scientific attitude is the major objective to make the students open minded, critical, curious.
- 3) To develop skill in practical work, experiments and laboratory materials and equipments along with the collection and interpretation of scientific data to contribute the science.
- 4) To understand scientific terms, concepts, facts, phenomenon and their relationships.
- 5) To make the students aware of natural resources and environment.
- 6) To provide practical experience to the students as a part of the course to develop scientific ability to work in the field of research and other fields of their own interest and to make them fit for society.
- 7) To The students are expected to acquire knowledge of plant and related subjects so as to understand natural phenomenon, manipulation of nature and environment in the benefit of human beings.
- 8) To develop ability for the application of the acquired knowledge to improve agriculture and other related fields to make the country self reliant and sufficient.
- 9) To create the interest of the society in the subject and scientific hobbies, exhibitions and other similar activities.

5. DURATION

The course shall be a full time course.

6. PATTERN:-

Pattern of Examination will be Semester.

- 7. FEE STRUCTURE :-**
As per Government /University rules.
1. Refer brochure and prospectus of concern affiliated college/institute to Shivaji University, Kolhapur.
 2. Other fee will be applicable as per rules and norms of Shivaji University, Kolhapur.

- 8. ELIGIBILITY FOR ADMISSION:**
As per guidelines obtained from Shivaji University, Kolhapur by following rules and regarding reservations by Govt. of Maharashtra.

- 9. MEDIUM OF INSTRUCTION:**
The medium of instruction shall be in English.

- 10. STRUCTURE OF COURSE- B. Sc. III Botany (Optional)**

THIRD YEAR (SEMESTER V/VI) (NUMBER OF PAPERS VIII)

Sr.No.	Subjects/Papers	Theory	Internal	Total Marks
1.	Paper-IX	40	10	50
2.	Paper- X	40	10	50
3.	Paper -XI	40	10	50
4.	Paper- XII	40	10	50
5.	Paper- XIII	40	10	50
6.	Paper-XIV	40	10	50
7.	Paper-XV	40	10	50
8.	Paper-XVI	40	10	50
	Practical -I			50
	Practical- II			50
	Practical- III			50
	Practical -IV			50
	Total			600

11. Structure of B. Sc. III P Semester V and VI

SEMESTER V							
Sr. No.	Subject Title	TEACHING SCHEME			PRACTICAL		
		Credits	No. of Lectures	Hours	Credits	No. of Lectures	Hours
1	DSE-E	2	3	2.4	8	20	16
2	DSE-E	2	3	2.4			
3	DSE-E	2	3	2.4			
4	DSE-E	2	3	2.4			
	TOTAL	10	16	12.8	8	20	16
SEMESTER VI							
1	DSE-F	2	3	2.4	8	20	16
2	DSE-F	2	3	2.4			
3	DSE-F	2	3	2.4			
4	DSE-F	2	3	2.4			
	TOTAL	10	16	12.8	8	20	16
GRAND TOTAL		20	32	25.6	16	40	32

12. SCHEME OF EXAMINATION :-

- The examination shall be conducted at the end of each term for semester pattern.
- The Theory paper shall carry 40 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 40 + **10** marks.
- Question Paper will be set in the view of the /in accordance with the entire Syllabus and preferably covering each unit of syllabi.

13. **STANDARD OF PASSING:-**

As Prescribed under rules & regulation for each degree.

14. NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

(Unit wise weightage of marks should also be mentioned)

Q. 1. Multiple choices questions (8-questions) --- 08 Marks

Q.2. Attempt **any two** of the following.

(Essay type/Broad answer questions) ---- 16 Marks

Q.3. Write short notes (**any four**) --- 16 Marks

**15. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS-
(FOR REVISED SYLLABUS)**

(Introduced from June 2020 onwards)

Old Syllabus (Semester pattern)		Revised Syllabus (Semester pattern)		
Paper No.	Title of Old Paper	Sem. No	Paper No.	Title of New Paper
IX	Biology of Non Vascular Plants and Paleobotany	V	DSE –E25	Genetics and Plant Breeding
X	Genetics and Analytical Techniques in Plant Science		DSE –E26	Microbiology, Plant Pathology and Mushroom Culture Technology
XI	Fundamentals of Plant Physiology and Ecology		DSE –E27	Cytology and Research Techniques in Biology
XII	Plant Biochemistry		DSE –E28	Horticulture and Gardening
XIII	Biology of Vascular Plants	VI	DSE –F25	Plant Biochemistry and Molecular Biology
XIV	Microbiology and Plant Pathology		DSE –F26	Bioinformatics, Biostatistics and Economic Botany
XV	Plant Breeding, Biostatistics, Ethnobotany and Horticulture		DSE –F27	Plant Biotechnology and Paleobotany
XVI	Molecular Biology and Biotechnology		DSE –F28	Bio fertilizers and Herbal Drug Technology

SEMESTER V
B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- IX DSE –E25
Genetics and Plant Breeding

Unit 1: Mendelism:

10

- 1.1 Introduction, Definition and Basic terminologies in genetics.
- 1.2 Principles of inheritance a) Law of Dominance b) Law of Segregation c) Law of independent assortment.
- 1.3 Gene Interaction-a) Complementary gene interaction b) Supplementary gene interaction.

Unit 2 : Linkage and Recombination

10

- 2.1 Linkage: Definition, Linkage group, Types, Coupling and Repulsion phase, Significance.
- 2.2 Recombination (Crossing over): Definition, Types , Mechanism of crossing over, Significance
- 2.3 Mutation – Definition, Spontaneous and Induced mutation. Types of mutagen Physical and Chemical, Significance.

Unit 3: Chromosomes structure and Variation

- 3.1 Chromosome structure - Introduction, types (based on position of centromere) **13**

- 3.2 Multiple allelism: Introduction, Definition, Self-incompatibility in plants

- 3.3 Quantitative inheritance: a) Polygene inheritance- Concept, examples- Kernel colour in wheat,
b) Population genetics- Hardy-Weinberg's law.

- 3.4 Maternal inheritance- Mendelian versus cytoplasmic inheritance, Plastid inheritance in
Mirabilis jalappa.

- 3.5 Alternation in genetic make-up and its significance-

- a) Change in chromosome structure- Deletion, Duplication, Inversion and Translocation.
- b) Change in chromosome number- Euploidy and Aneuploidy.

Unit 4: Plant Breeding

12

- 4.1 Introduction, Definition of plant breeding.

- 4.2 Aims and objectives of plant breeding

- 4.3 Methods of plant breeding-

- a) Introduction and acclimatization
- b) Selection- i) Mass selection ii) Pure line selection iii) Clonal selection
- c) Hybridization techniques in self and cross pollinated crops.
- d) Male sterility and its significance
- e) Mutation breeding- Gamma garden

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK , MARKS: 40+10
Paper- XDSE –E26
Microbiology, Plant Pathology and Mushroom Culture Technology

Unit 1: Microbiology **10**

1.1 Micro organisms in biological world, characteristic features of different groups:

Phytoplasma and Actinomycetes

1.2 Methods in Microbiology: Staining for microbes: Bacteria, Sterilization Methods, Culture Media, Pure Culture Techniques

1.3 Recombination in Bacteria: Transformation and Transduction

Unit 2: Industrial Microbiology **10**

2.1 Applications of micro-organisms with reference to Synthesis of
Antibiotics (Penicillin), Organic Acids (Lactic Acid), Alcohol (Ethyl Alcohol)

2.2 Bio-pesticides- Concept, Types and Significance

Unit 3: Plant Pathology **15**

3.1 Classification of Plant Diseases: on the basis of Pathogens and Symptoms

3.2 Transmission of Pathogen- Air borne, Seed borne and Soil borne

3.3 Prevention and Control: Physical, Chemical and Biological Control, Role of Quarantine

3.4 Study of Plant Diseases-

- i) Grassy Shoot of Sugarcane (Phytoplasma),
- ii) Citrus Canker (Bacterial),
- iii) Yellow Vein Mosaic of Bhendi (Viral),
- iv) White Rust of Crucifers and Tikka Disease of ground nut (Fungal)

Unit 4: Mushroom Technology **10**

4.1. History, Types of Mushrooms: Edible (Non poisonous) and inedible (Poisonous).

4.2 Cultivation Technology:

Pure culture: Medium, Sterilization, Preparation of spawn, Multiplication, Mushroom bed preparation, factors affecting the mushroom bed preparation and composting technology in mushroom production.

4.3 Storage: Short Term (Refrigeration), Long Term Storage (Canning, Pickles, Papads), Drying
in Salt Solutions

4.4 Values of Mushroom: Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content - Vitamins.

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK , MARKS: 40+10
Paper- XI DSE –E27
Cytology and Research Techniques in Biology

Unit 1: Cell as a unit of life **10**

I.1 Introduction, The Cell Theory, Prokaryotic and Eukaryotic cells,

1.2 Cell cycle and Apoptosis.

1.3 Cell division: Mitosis and Meiosis with their significance.

Unit 2: Cell Organelles **12**

2.1 Nucleus: Ultra structure, Nuclear envelope, Nuclear pore complex, DNA packaging in Eukaryotes.

2.2 Mitochondria: Ultrastructure, semiautonomous body and Role.

2.3 Chloroplasts: Ultrastructure, semiautonomous body and Role.

2.4 Ribosomes: Structure and Functions of Prokaryotic and Eukaryotic ribosome.

Unit 3: Sub Cellular Structures and Cell Membrane **10**

3.1. ER, Golgi body and Lysosomes: Structure and Role,

3.2 Peroxisomes and Glyoxysomes: Structure and Role.

3.3 Cell membrane: Structure, Fluid Mosaic Model, Role.

3.4 Types of membranes as per permeability.

Unit 4: Research Techniques in Biology **13**

4.1 Principles of microscopy, Light, Fluorescence and Electron microscopy (EM)- Scanning EM.

4.2 Colorimetry, Spectrophotometry, Micrometry, Photomicrography,

4.3 Intellectual property right (IPR) – Concept and Importance.

4.4 Patents – Objectives, Procedure and Working

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- XII DSE–E28
Horticulture and Gardening

Unit 1: Importance and divisions of Horticulture **5**

1.1: Introduction and importance of horticulture

1.2: Divisions of Horticulture – Pomology, Olericulture, Floriculture, Landscape gardening,

Unit 2: Horticultural Produce and Management of Pest and diseases **10**

2.1: Floriculture: a) Introduction, Cultivation of important cut flowers and management of important pests and diseases: Rose, Gerbera and Marigold.

b) Flower arrangements, Packing and Marketing of cut flowers.

2.2: Fruit preservation technology:

a) Physical - Drying, freezing, heat,

b) Chemical - sugar, salt, chemical preservatives.

Unit 3: Nursery **15**

3.1: Definition, objectives and scope, Infrastructure for nursery

3.2: Propagation Practices: Sexual and Asexual

a) Sexual: Seed: Sowing of seed, Transplanting of seedling, Advantages and Disadvantages.

b) Vegetative: i) Cutting – Definition, Stem cutting (Hard wood stem and soft wood stem), Use of PGR's for rooting

ii) Layering –Definition, Simple layering, Air layering

iii) Grafting – Definition, Whip grafting, Approach grafting

iv) Budding: Definition, T-budding, Patch budding

c) By specialized vegetative structure – Bulbs, Corms, Tubers, Rhizomes

Unit 4: Landscape Gardening **15**

4.1 Definition, scope and objectives

4.2 Indoor Garden – Indoor plants, bottle garden, dish garden, hanging basket, Bonsai, Vertical Garden

3.3 Outdoor Garden – Lawns, Preparation of lawn, lawn types, Rockery, Terrace garden, Water garden, green house and polyhouse

3.4 Important aesthetic Gardens of India: i) Mughal garden, Delhi

ii) Brindavan garden, Mysore.

SEMESTER- VI
B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- XIII DSE –F25
Plant Biochemistry and Molecular Biology

Unit 1: Carbohydrates **12**

- 1.1 Introduction and Classification of carbohydrates.
- 1.2 Structure and Properties of- a) Monosaccharides (Pentose: Ribose, Hexose: Glucose),
b) Oligosaccharides (Sucrose), c) Polysaccharides (starch).
- 1.3 Isomerism: Types of Isomers (Structural and Stereoisomer)
- 1.4 Significance of carbohydrates

Unit 2 : Lipids **12**

- 2.1 Introduction, General Structure, properties and classification of Lipids
- 2.2 Structure and properties of Saturated Fatty Acids (Stearic and Palmitic acid) and Unsaturated Fatty Acids (Oleic acid, Linoleic and)
- 2.3 Significance of Lipids

Unit 3: Proteins **11**

- 3.1. Introduction, ructure, Properties, Characteristics and classification of Amino acids
- 3.2. Brief Outline of biosynthesis of Amino acid: Proline
- 3.3. General Structure, Classification of Protein
- 3.4. Protein Biosynthesis in Eukaryotes: Transcription and translation

Unit 4: Nucleic Acids **10**

- 4.1 Introduction, Composition and Structure
- 4.2 DNA: Watson and Crick Model, Forms of DNA (A, B and Z)
- 4.3 DNA Replication in Eukaryotes
- 4.4 RNA: Types, structure and role of RNA's
- 4.5 Regulation of Gene expression- Lac Operon, Tryptophan Operon

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- XIV DSE –F26
Bioinformatics, Biostatistics and Economic Botany

Unit 1: Bioinformatics

14

- 1.1 Introduction, Aim, Scope and Branches of Bioinformatics
- 1.2 Biological Databases: Classification Format and Retrieval system of Biological Database, National Center for Biotechnological Information (NCBI), Basic Local Alignment Search Tool (BLAST)
- 1.3 Protein Information Resource (PIR) - Concept, Resources, Databases and Data Retrieval
- 1.5 Applications of Bioinformatics- Molecular Phylogeny (Concept, Methods, Analysis and Consistency)

Unit 2: Biostatistics

11

- 2.1 Introduction, definition, terminology.
- 2.2 Collection and presentation of data: Types of data, techniques of data collection- Census method, sampling method- simple random, stratified and systematic sampling. Classification, tabulation, graphical representation- Histogram and polygon.
- 2.3 Measures of central tendency and Dispersion: Arithmetic mean, Mode, Median, Range, Deviation, Mean deviation, Standard Deviation, Coefficient of Variation.
- 2.4 Statistical methods for testing the hypothesis') Students' T-test ii) Chi-square test.

Unit 3: Economic Botany: Cereals, Legumes and Oils

10

- 3.1 Origin of Cultivated Plants - Concept of centers of origin, their importance with reference to Vavilov's work.
- 3.2 Cereals: Origin, Botanical Name, Morphology, Sources and Economic importance of Wheat.
- 3.3 Legumes: Origin, Botanical Name, Morphology, Sources and Economic importance of Gram and Soybean.
- 3.4 Oils and Fats: Origin, Botanical Name, Morphology, Parts used and uses of Ground nut.

Unit 4: Economic Botany: Spices, Beverages and Fibers

10

- 4.1 Spices and Condiments - Origin, Botanical Name, Morphology, Parts used and Uses of Clove and Black pepper.
- 4.2 Beverages – Origin, Botanical Name, Morphology, Parts used and uses of Tea.
- 4.3 Fibre yielding Plants - Origin, Botanical Name, Morphology, Parts used and uses of Cotton.

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- XV DSE –F27
Plant Biotechnology and Paleobotany

Unit 1: Plant Biotechnology **03**

1.1 History, Definition, Scope and Importance (Areas of application)

1.2 Biotechnology in India

Unit 2: Recombinant DNA Technology **15**

2.1. Introduction, Principles and enzymes involved in DNA technology..

2.2. Cloning Vectors: a) Prokaryotic- Plasmid, Lambda phage and Cosmid.

(Brief idea) b) Eukaryotic-YAC (Yeast Artificial Chromosomes).

2.3 Southern blotting and Northern blotting techniques and its applications, Molecular Probes

2.4. DNA Fingerprinting, Molecular DNA Markers (RAPD, RFLP)

2.5 PCR, DNA sequencing and Concept of Gene bank.

Unit 3: Plant Tissue Culture **15**

3.1 Principles and Terminologies, Laboratory Requirement (Conditions and Instruments),
Culture Media, Totipotency and Cellular Differentiation,

3.2 Micro propagation: Stages of Micro propagation- Callus formation, Root Initiation, Shoot
Initiation, Primary and Secondary Hardening, Advantages and disadvantages

3.3 Embryogenesis: Protoplast culture, Cybrid

3.4 Somaclonal Variations

Unit 4: Paleobotany **12**

4.1 General account, Geological time scale, process of fossilization, Types of fossils.

4.2 Study of following form genera with reference to systematic position, external morphology
and affinities: a) *Lyginopteris* b) *Enigmocarpon*.

4.3 Application of paleobotany: Role of microfossil in oil and coal exploration.

B.Sc. Part- III Botany
CREDITS: 2, LECTURE PERIOD: 3 PER WEEK, MARKS: 40+10
Paper- XVI DSE –F28
Bio fertilizers and Herbal Drug Technology

Unit 1: Biofertilizers **11**

1.1 Introduction, Importance, types and study of –

- a) Bacterial fertilizers: *Rhizobium*, *Azotobacter*, *Azospirillum*
- b) Blue green Algal:, Cyanobacteria (BGA): *Nostoc*, *Anabaena*.
- c) Mycorrhizal association: VAM
- d) Fungal: *Trichoderma*

1.2 Organic manures –

- a) Farm Yard Manure, Green manure, Compost
- b) Vermicomposting and Vermi-wash

Unit 2: Herbal Medicines **11**

2.1 Definition, Importance of herbal medicines

2.2 Classification of crude drugs: Taxonomical, Morphological and Chemical

2.3 Identification, authentication, collection, processing and storage of medicinal plants.

2.4 Introduction to general methods of extraction, isolation and purification of
Phyto constituents.

Unit 3: Herbal cosmetology **11**

3.1 Applications of herbs in cosmetics: Shampoo (*Sapindus laurifolius*, *Acacia concinna*), hair
dye (*Lawsonia inermis*)

3.2 Facemask (*Santalum album*), bath oil (*Rosa indica*), perfume (*Jasminum sambac*).

Unit 4: Pharmacognosy **12**

4.1 Pharmacognosy: Introduction And, Definition

4.2 Medicinal uses of Tulsi, Ginger, Methi, Amla.

4.3 Adulteration of drugs of natural origin: Evaluation by morphological, Microscopic,
Chemical, Physical, Chromatographical, Spectrophotometric.

4.4 Plant antioxidants: Properties of Antioxidants, Vitamins (C and E)

Shivaji University, Kolhapur

B.Sc. III Botany (CBCS Syllabus)

Practical-I (Based on Paper No. X and XV)

- 1 Preparation of culture media –PDA (slants and Plates) and sterilization.
- 2 Methods of inoculation- on slants and plates
- 3 Isolation of soil fungi by serial dilution method.
- 4 Study of different types of stains in biological studies.
- 5 Method of control of seed borne diseases (Dipping/Seed dressing)
- 6 and 7 Plant diseases as per theory
- 8 and 9 Demonstration of Mushroom Cultivation and Harvesting
- 10 Isolation of plant genomic DNA and its spooling.
- 11 Calorimetric estimation of DNA using di-phenyl amine.
- 12 Preparation of plant tissue culture medium (M.S.).
- 13 Demonstration of techniques of *In Vitro* culture using suitable ex-plant.
- 14 Demonstration of inoculation of explants on suitable medium (M.S.)
- 15 Isolation of Protoplast.
- 16 Study of steps in genetic engineering for the production of Golden rice with the help of photographs.
- 17 Identification of types of fossils – i) Impression ii) Compression iii) Petrification IV) Coal.
- 18 Identification of – i) *Lyginopteris*
- 19 Identification of *Enigmocarpon*
- 20 Submission of plant diseases

Shivaji University, Kolhapur
B.Sc. III Botany (CBCS Syllabus)
Practical-II (Based on Paper No. IX and XIV)

1. Genetic examples on Linkage.
- 2 Genetic examples on Crossing over
- 3 Genetic examples on Polygene inheritance
- 4 Determination of chromosome count in PMCs in *Allium* / *Cynoetis*.
- 5 Detection of meiotic anomalies in chromosomes in *Rhoeo*.
- 6 Preparation of karyotypes – idiograms by using photographs.
- 7 Methods of emasculation
- 8 Breeding techniques in a) Malvaceae b) Fabaceae c) Poaceae
- 9 Mounting of floral parts.
- 10 Study of World map to show Vavilov's centers of origin of cultivated plants.
- 11 Study of Botanical Name. Morphology, Parts used and Economic importance of Wheat.
- 12 Study of Botanical Name. Morphology, Parts used and Economic importance of Gram and Soybean.
- 13 Study of Botanical Name. Morphology, Parts used and Economic importance of Clove and Black pepper.
- 14 Study of Botanical Name. Morphology, Parts used and Economic importance of Ground nut.
- 15 Study of Botanical Name. Morphology, Parts used and Economic importance of Cotton.
- 16 Measures of central tendency of given data.
- 17 Study of frequency distribution and its graphical representation
- 18 Determination of Standard deviation of the given data.
- 19 Submission of PPT on the basis gene transfer method.

Shivaji University, Kolhapur
B.Sc. III Botany (CBCS Syllabus)
Practical-III (Based on Paper No. XI and XVI)

1. To study prokaryotic cells (bacteria), eukaryotic cells with the help of electron micrograph / photographs.
- 2 and 3 Study of the photomicrography technique.
- 4 Study of cell structure in Onion, *Hydrilla* leaf and *Spirogyra* filament.
- 5 Study of mitosis.
- 6 Study of meiosis.
7. Use of dialysis to separate smaller molecules from larger molecules.
- 8 Micrometry technique.
- 9 Study of DNA packaging by micrographs.
- 10 Study of Beer and Lambert's Law.
- 11 Preparation of permanent cytological slides.
- 12 Submission of photomicrograph.
- 13 Application of Biofertilizers - i) *Nostoc* ii) *Azotobacter* iii) *Rhizobium* iv) *Trichoderma*
- 14 Identification of organic manure – i) Green manure (*Crotalaria juncea*),
ii) Vermicompost iii) Vermiwash
- 15 and Herbal Preparations of
- 16 i) Churn (Triphalachurna) ii) Kadha /Decoction (Adulsa)
iii) Hair oil (Maka)iv) Shampoo (Ritha, Shikakai).
- 17 Biochemical test for drug adulteration of
i) Haladi (*Curcuma longa*) ii) Hing (*Ferulaaassa-foetida*)
iii) Camphor (*Cinnamomum camphora*) iv) Saffron (*Crocus sativus*)
- 18 Macroscopic (Organoleptic) study of – i) Tulsi ii) Ginger iii) Methii v) Avala.
- 19 Determination of Vein-islet Number by Camera Lucida.
20. Phytochemical analysis- Qualitative tests for Tannins, Alkaloids, Saponins, Steroids, Terpenoids, Flavonoids, reducing sugars, carbohydrates. (Any four).
- 21 Visit to Herbal cosmetics industry/Pharma industry (Separate handwritten report to be submitted by student).

Shivaji University, Kolhapur
B.Sc. III Botany (CBCS Syllabus)
Practical-IV (Based on Paper No. XII and XIII)

1. Study of budding technique – Patch and T-budding
- 2 Study of Layering technique – Air layering
- 3 Study of Grafting technique – Whip and Approach
- 4 Technique of Potting and Repotting
- 5 Demonstration of Bonsai
- 6 Demonstration of Bottle garden and hanging baskets.
- 7 Floral arrangement – Flower pot, Floral bouquet, Floral Rangoli
- 8 Garden implements (Any five) – Garden shear, sickle, cutter, shovel, budding knife, secateur, water can, pruning scissors, sprayer, spade
- 9 Study of ornamental plants – Rose, Gerbera, Marigold
- 10 Study of hedge and edge plants.
- 11 Study of indoor plants.
- 12 Qualitative test for sugar in plant material
- 13 Qualitative tests for starch and cellulose in plant material
- 14 Qualitative test for proteins.
- 15 Qualitative test for lipids.
- 16 Identification of sugars by ascending paper chromatography.
- 17 Determination of fatty acid value of oil sample.
- 18 Separation and identification of amino acids by TLC (Thin Layer Chromatography).
- 19 Determination of iso-electric point of plant protein.
20. Visit to nursery/ Aesthetic garden / Exhibition / Food industry (Separate handwritten report to be submitted by student)

List of Books Recommended for B. Sc. III Botany

Cytology and Genetics ---

1. Cell Biology - S. C. Rastogi (1992)
2. Cell Biology - C. B. Powar (2000)
3. Cell Biology, Genetics, Evolution and Ecology – P S. Verma, V K. Agarwal (2001)
4. Cell Biology - R. Dowben (1971)
5. Cell and Molecular Biology – P. K. Gupta (1999)
6. Cell and Molecular Biology (2001) – E. D. P De Robertis & E. M. F De Robertis (Jr.)
7. Cell Physiology - A C. Giese (1979)
8. Cellular Energy Metabolism and Its Regulation - Atkinson, D. E. (1977)
9. Genetics - P. K Gupta (1997) Rastogi Publications. Shivaji Road, Meerut.
10. Gene Action - Hartman and Suskind (1968)
11. Cytology and Genetics.--Dnyansagar(T. Magrewith & Co.)
12. Plant Chromosomes: Laboratory Methods--Fukui. K. and Nakayama S. 1996. CRC Press, Boca Raton, Florida.
13. Plant Chromosomes: Analysis Manipulation and Engineering. Sharma A.K. and Sharma A. 1999. Hawood Academic Publishing, Australia.
14. Fundamentals of Cytology --L. W. Sharp.
15. Principles of Genetics -Snustad. D. P. and Simmons. M.J. 2000. (2nd Edition). John Wiley & Sons Inc., USA.
16. Cytogenetics and Plant Breeding-- S N. Chandrashekharan and S. V. Parthasarathy.
17. The Science of Genetics.-Atherly. A.G., Girton. J.R. and McDonald. 1999. Saunders College Publishing Co., Fort Worth USA.
18. Principles of Genetics- Gardener. J., Simmons. H.J. and Snustad. D.P. 1991. (8th Edition). John Wiley & Sons, New York.
19. Genetics: Principles and Analysis--Hartl.D.L.and Jones.E.W. 1998. (4th Edition) Jones & Barlett Publishers. Massachusetts. USA.
20. Genetics (5th Edition).-Russel. P.J. 1998. The Benjamin/Cummings Publishing Co., Inc., USA.
21. Molecular Biology of Cell. Alberts B., Bray D., Lewis, J., Raff, M. Roberts, K. and Watson, J.D. 1999. Garland Publishing Co., Inc., New York USA.
22. Karp, G. 2010. Cell and Molecular Biology: Concepts and Experiments. 6th Edition. John Wiley & Sons. Inc.
23. De Robertis, E.D.P. and De Robertis, E.M.F. 2006. Cell and Molecular Biology. 8th edition. Lippincott Williams and Wilkins, Philadelphia.
24. Becker, W.M., Kleinsmith, L.J., Hardin. J. and Bertoni, G. P. 2009. The World of the Cell. 7th edition. Pearson Benjamin Cummings Publishing, San Francisco.
25. Molecular biology (principles and practices) Dr. priyanka Siwach and Dr. Namita singh laxmi publication. ISBN 9788131807476.
26. Molecular biology , N Arumugam , Saras Publication . ISBN 9789382459835
27. Molecular biology , Dr. P.S. Verma , Dr. V.K. Agrawal, P.Chand Publication
28. Molecular biology Concepts for Inquiry Jenifer A Hackett.
29. Essential cell biology 4th edition Bruce alberts, Dennis bray, Karen Hopkin, Alexander D, Johnson.

Economic Botany:

1. Kocchar, S. L. 1998. Economic Botany in Tropics, 2nd edition. MacmillanIndia Ltd., New Delhi.
2. A Textbook of Economic Botany--Sambamurthy, A. V. S. S. and Subramanyam, N. S. 1989. Wiley Eastern Ltd., New Delhi.
3. Hill's Economic Botany. -- Sharma, O. P. 1996. Tata McGraw Hill Publishing Company Ltd., New Delhi.
4. Economic Botany - Plants in Our World. Simpson, B. B. and Conner-Ogorzaly, M. 1986. McGraw Hill, New York.

Horticulture and Gardening:

1. Gardening in India. -- Percy Lancaster (1997) Oxford & I B H Publishing Co.Pvt.Ltd, New Delhi.
2. Floriculture: Fundamentals & Practices. - Alex Laurie and Ries V.C. (2003)
3. Percy Lancaster's Gardening in India.- Bose, T.K. and Mukherjee, D. (1997) (Ed.)Oxford and IBH Publ. (P.) Ltd., New Delhi, India.
4. A Art of Miniature Plant Culture. - Day, S.C. (2003)Agrobias. Jodhpur, India.
5. Complete Home Gardening. -Dej, S.C. (2003) Agrobias, Jodhpur, India.
6. Principles and Techniques for Plant Scientists. -Dhopte, A.M. (2003) Agrobios,Jodhpur, India.
7. Horticulture and Gardening.- Khan, M.R. (1995) NiraliPrakashan, Pune. India.
8. Gardening for every one- PramilaMehra. Hind pocket book private limited, NewDehli.
9. Kumarsen V. Horticulture ,Saras Publication
10. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & IBH PublishingCo., New Delhi.
11. Sandhu, M.K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
12. Kumar, N., 1997, Introduction to Horticulture, Rajalakshmi Publications, Nagercoil.
13. Edmond Musser & Andres, Fundamentals of Horticulture, McGraw Hill Book Co., New Delhi.
14. Agrawal, P.K. 1993, Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National _Seed Corporation Ltd., New Delhi.
15. Janick Jules. 1979. Horticultural Science. (3rd Ed.), W.H. Freeman and Co., San Francisco, USA.
16. Randhawa, G.S. and Mukhopadhyay, A. 1986. Floriculture in India. Allied Publishers.

Microbiology and Plant Pathology

- 1) Microbiology- P.D.Sharma; Rastogi Publications
- 2) Plant Pathology- Mehrotra
- 3) Plant Diseases- R.S. Singh
- 4) Plant Diseases- Rangaswamy

Biochemistry

- 1) Fundamentals of Biochemistry- J.L.Jain, Sunjay Jain, Nitin Jain; S. Chand & Company Ltd.
- 2) Cell Biology, Genetics, Molecular Biology, Evolution and Ecology- P. S. Verma, V. K. Agarwal; S. Chand & Company Ltd.

Bioinformatics

- 1) Introduction to Bioinformatics – S. Sundara Rajan, R. Balaji; Himalaya Publishing House.

Plant Biotechnology

1. Elements Of Biotechnology- P. K. Gupta (Second Edition); Rastogi Publications
2. Plant Tissue Culture - Kalyan Kumar De; New Central Book Agency (P) Ltd.
3. Introduction to Plant Tissue Culture - M. K. Razdan (Second Edition); Oxford & IBH Publishing Co. Pvt. Ltd.
4. Practical Biotechnology and Plant Tissue Culture - Prof. Santosh Nagar, Dr. Madhuri Adhav; S. Chand & Co. Ltd.
5. Arnold C.A.1972. An Introduction to PalaeobotanyTata McGraw-Hill,
6. Andrews H.N. Studies in Palaeobotany 1961. John Wiley & Sons Canada, Limited,
7. Shukla A.C. and S.P . Mishra. Essentials of Palaeobotany.
8. Wilson, N. S. and Rothwell,G.W.1983. Palaeobotany and the Evolution of Plants (2ndEdition).Cambridge University Press U.K.
9. Dubey, R.C., 2005 A Text book of Biotechnology S.Chand& Co, New Delhi.
10. Kumaresan, V. 2005, Biotechnology, Saras Publications, New Delhi.
11. John JothiPrakash, E. 2004. Outlines of Plant Biotechnology. Emkay –Publication, NewDelhi.

Biofertilizers and Herbal Technology

1. Sathe, T.V. 2004 Vermiculture and Organic Farming. Daya publishers.
2. SubhaRao, N.S. 2000, Soil Microbiology, Oxford & IBH Publishers, New –Delhi.
3. Vayas,S.C, Vayas, S. and Modi, H.A. 1998 Bio-fertilizers and organic –Farming Akta Prakashan, Nadiad
4. Chopra R.N., S.L.Nayar and I.C.Chopra, 1956.Glossary of Indian medicinal plants C.S.I.R, New Delhi.
5. Dey and Raj Bahadur,1984. The indigenous drugs of India, Kanny, Lall,. International Book Distributors.

Details of Practical Examination

A) Every candidate must produce a certificate from Head of the Dept. in his /her college, stating that he / she has completed practical course in satisfactory manner as per guidelines laid down by Academic Council on the recommendations of Board of Studies in Botany. The student should record his / her observations and report of each experiment should be written in the journal. The journal is to be signed periodically by teacher in charge and certified by the Head of the Department at the end of year. Candidates have to produce their certificated journal and tour report at the time of practical examination. Candidate is not "allowed to appear" for the practical examination without a certified journal / a certificate from Head of the Botany Dept. regarding the same.

B) Practical Examination shall be of Five hours duration and shall test a candidate in respect of the following.

1. Practical study of external and internal structures of different plant types and their classification.

Making temporary stained preparations and identification.

2. Identification and setting of experiments as per syllabus.

4. Spotting of the specimens as per syllabus.

Botanical Excursions

One teacher along with a batch not more than 20 students be taken for botanical excursion to places of Botanical interest, one in each term. If there are female students in a batch of 20 students, one additional lady teacher is permissible for excursion. Each excursion will not be more than **SEVEN** days during college working days. T.A. and D.A. for teachers and non-teaching staff participating in excursions should be paid as per rules. Tour report duly certified by tour in charge teacher and Head of the Department should be submitted at the time of practical examination. For every study tour take the prior permission of the head of the department and Principal.

Practical Course

B. Sc. III Botany Practical course covered in four practical numbers (Practical no.1 , Practical no.2, practical no.3 and practical no. 4 with total 80 practicals). These practicals are to be performed by the students. Each practical is to be supplemented by permanent slides, preserved / fresh specimens / materials, charts, herbarium sheets, etc. wherever necessary.

C] OTHER FEATURES:

1. INTAKE CAPACITY / NUMBER OF STUDENTS:-

As per university rules.

2. TEACHERS QUALIFICATIONS:-

- As prescribed by norms.
- However required number of core faculty should be given for particular course along with paper wise and Specialization wise work load allocation.
- Work load details should be as per Apex body/UGC/State Govt./University norms.

2 The Board of studies should clearly mention the required Books, Journals and specific Equipments necessary for the Course.

(A) LIBRARY: Library be equipped with the required Reference and Text Books, Journals and Periodicals for higher and advanced studies as per stated in revised syllabus and approved by BOS.

(B) SPECIFIC EQUIPMENTS:

T.V., V.C.R. V.C.P., L.C.D., Overhead Projector, Computers and necessary software and operating systems etc. are necessary to run the course.

(C) LABORATORY SAFETY EQUIPMENTS

- i) Fire extinguishers at least two sets in each laboratory of 600 sq.ft. Area.
- ii) Leakage of gases be avoided.
- iii) First aid kit be made available.
- iv) Sugar / Glucose –500gm pack- a pinch of sugar and a cup of drinking water in hypoglycemic condition or in extreme weakness of student or a person concerned

B) GENERAL SAFETY RULES FOR LABORATORY WORK

1) List of equipments needed for Laboratory Safety:-

- 1. Fire extinguisher
- 2. First Aid Kit
- 3. Good earthing and insulated wirings for electrical supply.
- 4. Emergency exit
- 5. Apron and goggles wherever necessary
- 6. Fuming Chambers
- 7. Masks flows and shoes while handling hazardous chemicals & gases (Good valves, manometers and regulators for gas supply)
- 8. Operational manuals for instruments (handling to be made as suggested.)
- 9. Rules of animals and blanks ethics.
- 10. Leakage of gases to be avoided.
- 11. Cylinders or flow pipes to handle Acids.
- 12. No weighings for NaOH and hygroscopic substances.
- 13. Stabilized supply in the laboratory.

2) There Is No Substitute for Safety

- 1. Any injury no matter how small, it must be reported to teacher immediately.
- 2. a) In case any chemical enters your eyes go immediately to eye- wash facility and flush your eyes and face with large amount of water.
b) For acid or phenol split, do not use water instead put some bicarbonate.
- 3. In case of fire, immediately switch off all gas connections in the laboratory and pour sand on the source of fire or cover it with asbestos or cement sheet.
- 4. While leaving laboratory, make sure that gas, water taps and electricity are switched off.
- 5. Remove your lab coat. Gloves and clean your hands before leaving laboratory.
- 6. Make your workplace clean before leaving the laboratory.
- 7. Keep your hands away from your face, while working in laboratory.
- 8. Each laboratory must have a first aid box.

9. Know what to do in case of emergency - e.g.
(a) Know the place of fire extinguisher and first aid box.
10. Don't use cell phones in the laboratory.
(a) Remember important phone numbers

3) DO's

1. Always wear lab coat, shoes in the laboratory. Every student must have their weight box, a napkin etc.
2. Maintain separate record book for each subject.
3. Keep your belongings at the place allotted for the same.
4. Maintain silence, order, cleanliness and discipline in the laboratory.
5. Work at the place allotted to you or specially used for certain operations.
6. Keep the working table clean.
7. Handle the laboratory equipments, glassware and chemical with great care.
8. Use only required quantities of material and apparatus of essential size.
9. Perform the test in their proper order.
10. Know the location of eye wash fountain and water shower.
11. Minimize your exposure to organic solvents.
12. The Metal like sodium should be kept under kerosene or liquid paraffin layer in a vessel with a cork stopper.
13. Sodium metal should be cut on dry filter paper. The cut off pieces of sodium should be immediately collected in a vessel containing kerosene or liquid paraffin.
14. Always pour acid into water when diluting and stir slightly.
15. All operations involving poisonous flammable gases and vapours should be carried out in the flame chamber (with exhaust facility)
16. Ladies should avoid wearing saree. If it is there, apron is essential.

4) DON'T

1. Don't work alone in the laboratory
2. Don't leave the glass wares unwashed.
3. Don't take apparatus, chemicals out of lab.
4. Don't leave any substance in a vessel or bottle without label.
5. Don't weigh the reagent directly on the balance pan.
6. Don't throw the cut off pieces of sodium metal in sink or water. Transfer it immediately in its container.
7. Don't take sodium metal with hands. Use forceps.
8. Don't panic and run in case of fire. Use the fire extinguishers or sand buckets.

9. Don't breathe the vapours of organic solvents.
10. Don't pour any unused reagent back in its stock bottle.
11. Don't eat or drink any food in laboratory.
12. Don't use inflammable solvents like benzene, ether, chloroform, acetone and alcohol around flame.
13. Don't distill to dryness.
14. Don't exchange stoppers of flasks and bottles containing different reagents.
15. Don't leave reagent bottle lying on the table.
16. Don't disturb the order of reagent bottles in which they are placed.
17. Don't bring reagent on your working table from the general shelf.
18. Don't throw burning matchstick into dustbin.
19. Don't leave the laboratory without permission.

5) LABORATORY / FIELD WORK CARE AND SAFTY FOR BOTANY STUDENTS

1. Unnecessary wastage of plant material during practical should be avoided.
2. During study tour / personal collection, more emphasis be given on study of plants in nature and collection of wild plants should not be carried out.
3. If at all the collection of the plant material is needed, it should be carried out under supervision of concerned teacher. Collection of poisonous plants / poisonous mushrooms should be avoided.
4. Oral intake of unknown plant material, out of curiosity, during practical or collection tour is strictly prohibited.
5. If there is any allergic reaction while handling the plants / plant parts / pollen grains / fungal specimens it should be immediately brought to the notice of the concerned teacher and reported to the registered medical purloiner.
6. Wearing of hand gloves (and mask) is essential while handling poisonous plants / herbarium sheets / toxic and hazardous chemicals / reagents / strong acids / strong alkalis during the experiment should be made with vacuum pipette / auto pipette / burette under the supervision of concerned teacher / lab assistant.
7. Highly inflammable organic solvents (alcohol, acetone etc.) should not be kept in vicinity of spirit lamp.
8. The laboratory safety measures adopted for handling of hazardous chemicals in chemistry practicals should be followed for conducting practicals in plant biochemistry / microbiology.
9. Operational manuals for equipments such as centrifuge, autoclave, spectrophotometer should be followed.

10. In case of minor injuries, preliminary treatment should be undertaken with the help of first aid kit available in the laboratory. In case of serious injury, concerned teacher should be immediately contacted for consultation to the physician.
11. The instruction report for breeding, experimentation will be submitted in a week period. (Which are laid down by Ministry of Social Justice & Empowerment and Ministry of Environment and Forests, Govt. of India).

Course outcomes

1. Students are acquainted with basic as well as recent knowledge in the field of molecular biology, biotechnology and bioinformatics
2. Acquiring the basic procedure in the field of microbiology and plant pathology.
3. To develop skills in of horticulture including nursery, landscaping, gardening, floriculture and pomology
4. Students will be able to demonstrate their knowledge, skills and attributes to be successful contributing members of the horticulture profession.
5. Acquaint the student with the comprehensive knowledge in the bio fertilizers, herbal drug technology and paleobotany
6. Students will be able to demonstrate their understanding of relevant course theories and concepts
Students able to Mendelian and Neo-mendelian genetics
7. Students become familiar with the Organic manures, Herbal Medicines, Herbal cosmetology and Pharmacognosy.
8. Understand the methods of Plant Biotechnology, Protoplast culture and Recombinant DNA Technology.
9. Acquainted the scope of paleobotany in the present scenario and understand the fossil genera
10. Aware about the Spices, Beverages and Fibers, Cereals, Legumes and Oils.
11. Understand the of carbohydrates, lipids, proteins
12. Understand the techniques of plant breeding
13. Understand the techniques of mushroom cultivation.
14. Acquainted the techniques of micrometry, chromatography and other laboratory techniques used in the field of life science.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A++' Grade

CHOICE BASED CREDIT SYSTEM

Syllabus For

**B.Sc. Part - I
ZOOLOGY**

SEMESTER I AND II

(Syllabus to be implemented from June, 2022 onwards.)

Choice Based Credit System with Multiple Entry and Multiple Exit Options

To be implemented from the Academic Year 2022-23

First Year Bachelor of Science (Level-5) Programme Structure (NEP-2020 PATTERN)

Sub Zoology

SEMESTER-I (Duration-6 Months)							
	Technical scheme						
	Theory				Practical		
CGPA Courses	Course code	Credits	Number of Lecture per week	Hours	Credits	Number of Lecture per week	Hours
	DSC-15A	02	05	04	02	04	3.2
	DSC-16A	02					
	AECC-A	02	04	3.2			
	Total-(A)	06	09		02	04	
Non CGPA Course	SEC-I	-	-	-	02	04	04
	VBC-I	-	-	-	01	02	02
SEMESTER-II (Duration-6 Months)							
CGPA Courses	DSC-15B	02	05	04	02	04	3.2
	DSC-16B	02					
	AECC-B	02	04	3.2			
	Total-(B)	06	09				
Non CGPA Course	SEC-I	-	-	-	02	04	04
	VBC-I	-	-	-	01	02	02
Total-(A+B)		12	18		04	08	6.4

EXAMINATION SCHEME											
SEM-I											
THEORY							PRACTICAL				
C G P A C O U R S E S		Credits	Hours	Max. Marks	Total Marks	Min. Marks for Passing	Hours	Credits	Marks	Total Marks	Min. Marks for Passing
	DSC-15A	02	04	50	100	35	PRACTICAL EXAM IS ANNUAL				
	DSC-16A	02	04	50							
	AECC-B	02	3.2	50	50	18					
N O N C G P A	SEC-I	-	-	-	-	-					
	VBC-I	-	-	-	-	-					
SEM-II											
THEORY							PRACTICAL				
		Credits	Hours	Max. Marks	Total Marks	Min. marks for passing	Hours	Credits	Max. Marks	Total Marks	Min. marks for passing
C G P A	DSC-15B	02	04	50	100	35	3.2	02	50	50	18
	DSC-16B	02	04	50			As per the BOS Guidelines				
	AECC-B		3.2								
N O N C G P A	SEC-I	-	-	-	-	-	-	-	-	-	-
	VBC-I										

List of SEC Courses (A student can opt any SEC irrespective of his own faculty)

- ❖ Apiculture
- ❖ Sericulture
- ❖ Vermiculture
- ❖ CMLT
- ❖ Aquarium Maintenance
- ❖ Bioinformatics

Link for the pool of SEC courses from

National Skills Qualification Framework (NSQF)

(You may add or delete any courses as per available facilities)

https://drive.google.com/file/d/176Vwvx4SC2ONrt69XADruzI2qnfBPI_o/view?usp=sharing

B. Sc. Part – I Semester –I
ZOOLOGY

DSC – 15A (ANIMAL DIVERSITY-I)
Theory: 30 hrs. (37.5 lectures of 48 minutes)
Marks -50 (**Credits: 02**)

Unit 1:

Kingdom Protista (3hrs.)

General characters and classification up to classes; Locomotory organelles and locomotion in Protozoa

Phylum Porifera (3hrs.)

General characters and classification up to classes; Canal System in *Sycon*

Phylum Cnidaria (3hrs.)

General characters and classification up to classes; Polymorphism in Hydrozoa

Phylum Platyhelminthes (3hrs.)

General characters and classification up to classes; Life history of *Taenia solium* and its parasitic adaptations

Phylum Nematelminthes (3hrs.)

General characters and classification up to classes; Life history of *Ascaris lumbricoides* and its parasitic adaptations

Unit 2:

Phylum Annelida (3hrs.)

General characters and classification up to classes; Metamerism in Annelida

Phylum Arthropoda (5hrs.)

General characters and classification up to classes; Vision in Arthropoda, Metamorphosis in Insects

Phylum Mollusca (3hrs.)

General characters and classification up to classes; Torsion in gastropods

Phylum Echinodermata (4hrs.)

General characters and classification up to classes; Water-vascular system in Asteroidea

Total Periods – 30 hrs

B. Sc. Part – I Semester –I
ZOOLOGY
DSC – 16 A (Cell Biology and Evolutionary Biology)
Theory: 30 hrs. (37.5 lectures of 48 minutes)
Marks-50 (**Credits: 02**)

CELL BIOLOGY & EVOLUTIONARY BIOLOGY

Cell structure-	(2hrs.)
Cell theory and diversity in cell size and shape	
Structure of nucleus-	(2hrs.)
Nucleus with reference to Nuclear membrane, Nucleoplasm, Chromatin and nucleolus.	
Structure of Chromosome-	(3hrs.)
With reference to Morphology and organization (Nucleosome), Polytene Chromosomes	
Ultra structure and functions of the following	(8 hrs.)
Plasma membrane (Fluid Mosaic Model)	
Mitochondria	
Endoplasmic reticulum	
Golgi complex	
Lysosome	
Unit 2:	
History of Life	(2hrs.)
Major Events in History of Life : Introduction to theories of origin of life, study of theory of chemical evolution.	
Introduction to Evolutionary Theories	(5hrs.)
Lamarckism, Darwinism, Neo-Darwinism	
Direct Evidence of Evolution	(4hrs.)
Types of fossils, formation of fossils, dating of fossils	
Extinction	(4hrs.)
Mass extinction (Causes, Names of five major extinctions, K-T extinction in detail), Role of extinction in evolution	

Total Periods – 30 hrs

- **Suggested Readings:**

- Ruppert and Barnes, R.D. (2006). *Invertebrate Zoology*, VIII Edition. Holt Saunders International Edition.
- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
- Young, J. Z. (2004). *The Life of Vertebrates*. III Edition. Oxford university press.
- Pough H. *Vertebrate life*, VIII Edition, Pearson International.
- Hall B.K. and Hallgrimsson B. (2008). *Strickberger's Evolution*. IV Edition. Jones and Bartlett Publishers Inc.
- Tortora, G.J. and Derrickson, B.H. (2009). *Principles of Anatomy and Physiology*, XII Edition, John Wiley & Sons, Inc.
- DeRobertis EDP and DeRobertis EME – Cell and Molecular Biology
- C.B. Powar – Cell Biology, Himalaya Pub. House
- P. K. Gupta – Cell and Molecular Biology
- Cell Biology – Dr. N. Arumugam
- Ridley, M. (2004). *Evolution*. III Edition. Blackwell Publishing
- Barton, N.H., Briggs, D.E.G., Eisen, J.A., Goldstein, D.B. and Patel, N.H. (2007). *Evolution*. Cold Spring Harbour Laboratory Press.
- Hall, B.K. and Hallgrimsson, B. (2008). *Evolution*. IV Edition. Jones and Bartlett Publishers
- Campbell, N. A. and Reece J. B. (2011). *Biology*. IX Edition, Pearson, Benjamin, Cummings.
- Douglas, J. Futuyma (1997). *Evolutionary Biology*. Sinauer Associates.

B. Sc. Part – I Semester –II
ZOOLOGY
DSC – 15 B (Animal Diversity and Insect Vector)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (**Credits: 02**)

Animal Diversity and Insect Vectors

Unit: I Animal Diversity

(16 hrs)

Type Study: Rat (*Rattus rattus*) (Physiology is not expected)

- Systematic position, Habit and Habitat
- Morphological Characters
- Digestive System
- Respiratory System
- Circulatory System (Composition of Blood and Heart)
- Excretory System
- Reproductive System
- Brain for Rat

Unit: II : Insect Vectors

1. Mosquito as an insect vector

(8hrs)

Mosquito born diseases with respect to causal organism, life cycle and symptoms

- a. Malaria
- b. Dengue
- c. Chikungunya
- f. Control Measures of mosquitoes

2. Housefly as an important mechanical vector

(2 hrs)

Housefly born diseases with respect to Causal organism, life cycle, symptoms

- a. Myiasis
- b. Control Measure of housefly

3. Flea as an insect vector

(4 hrs)

Flea born diseases with respect to Causal organism, life cycle and symptoms

- a. Plague
- b. Typhus fever
- c. Control of fleas

Total Periods – 30 hrs

B. Sc. Part – I Semester –II

ZOOLOGY

DSC – 16 B (Genetics)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (**Credits: 02**)

Genetics

Unit: 1

Introduction to Genetics (3hrs.)

Mendel's work on transmission of traits, Genetic Variations, Molecular basis of Genetic Information

Mendelian and post Mendelian Genetics (8hrs.)

Principles of Inheritance, Incomplete dominance and co-dominance, gene interaction, Multiple alleles w.r.t. ABO, Rh blood groups and coat colour in rabbit, sex linked inheritance.

Linkage, Crossing Over (4hrs.)

Linkage and process of crossing over, Coupling and repulsion theory, Cytological evidence of crossing over.

Unit 2:

Mutations (8hrs.)

Chromosomal Mutations: Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy, induced gene mutation.

Sex Determination (7hrs.)

Chromosomal theory, Genic balance theory, Haploidy-Diploidy mechanism, Environmental Theory

Total Periods – 30 hrs

Suggested Readings :

- P.S.Varma &V.K.Agarwal–CellBiology,Genetics,MolecularBiology, Evolution andEcology
- R. P. Meyyan, N, Arumugam – Genetics &Evolution
- Gardner, E.J., Simmons, M.J., Snustad, D.P. (2008). *Principles of Genetics*. VIII Edition. WileyIndia.
- Snustad, D.P., Simmons, M.J. (2009). *Principles of Genetics*. V Edition. John Wileyand SonsInc.
- Klug,W.S.,Cummings,M.R.,Spencer,C.A.(2012). *ConceptsofGenetics*. X Edition. BenjaminVerma P. S. and Agarwal V. K. – Genetics, S. Chand andCompany
- Strickberger– Genetics. C MillianPublications
- Winchester – Genetics, OxfordPublication
- Genetics by P.P. Meyyan,Cummings.
- Russell, P. J. (2009). *Genetics- A Molecular Approach*. III Edition. Benjamin Cummings.
- Griffiths, A.J.F., Wessler, S.R., Lewontin, R.C. and Carroll, S.B. *Introduction toGenetic Analysis*. IX Edition. W. H. Freeman andCo.
- Imms, A.D. (1977). A General Text Book of Entomology. Chapman & Hall, U K Chapman, R.F.(1998).
- The Insects: Structure and Function. IV Edition, Cambridge University Press, U K Pedigo L.P.(2002).
- Entomology and Pest Management. Prentice Hall PublicationMathews, G.(2011).
- Integrated Vector Management: Controlling Vectors ofMalaria
- Insect Vector Borne Diseases.Wiley-Blackwell
- Biology of Vertebrates Walter & Sayles;(McMillan).
- Chordate Zoology, P.S. Dhami& J. K. Dhami - R. Chand & Co., NewDelhi.
- ModernTextbookofZoology,R.L.Kotpal,RastogiPublications,Meerut.
- The Life of Vertebrates, 3rd Edition, 1993, J. Z. Young E. L. B.S.Oxford.
- Chordate Zoology - E.L. Jordan, S. Chand & Co., NewDelhi.
- The Phylum Chordata - 1987, H.H. Newman, Distributor Satish Book Enterprise, Agra.
- Comparative Anatomy of the Vertebrates G. C.Kent.

B. Sc. Part – I
ZOOLOGY PRACTICALS
Marks -50 (Credits: 02)
(DSC– 15A,B and 16 A,B:
LAB)

1. Study of the following specimens:

- i Study of *Amoeba*, *Euglena*, *Plasmodium*, *Paramecium*, w.r.t. classification and locomotion
- ii Study of *Sycon*, *Hyalonema*, and *Euplectella*, *Obelia*, *Physalia*, *Aurelia*, *Tubipora*, *Metridium*, *Taenia solium*, Male and female *Ascaris lumbricoides*, *Aphrodite*, *Nereis*, *Pheretima*, *Hirudinaria*, *Palaemon*, *Cancer*, *Limulus*, *Palaemon*, *Scolopendra*, *Julus*, *Periplaneta*, *Apis*, *Chiton*, *Dentalium*, *Pila*, *Unio*, *Loligo*, *Sepia*, *Octopus*, *Pentaceros*, *Ophiura*, *Echinus*, *Cucumaria* and *Antedon*, w.r.t. classification and morphological peculiarities.

2. Study of the following:

- i T.S. or L.S. of *Sycon*,
- ii Life history *Taenia* and *Ascaris* and their parasitic adaptations.

3. Preparation of haemincrystals

4. Study Tour: Visit to any suitable place to study animal diversity or any place related to theory syllabus and submission of report.

5. Preparation of blood smear and identification of ABO and Rh blood groups

6. Cytological Preparations:

Mitochondria – Stained preparation of mitochondria from onion peeling / Hydrilla leaf / Oral mucosa by using Janus Green -B.

Polytene Chromosomes – Stained preparation of polytene chromosome in Chironomid larva / *Drosophila* larva.

7. Study of fossil evidences from plaster cast models and pictures.

8. Demonstration of Rat to study,

- Digestive system, Lungs, Heart, Kidney, Testis, Ovary and Brain of Rat

9. Study of Mendelian Inheritance and gene interactions (Non-Mendelian Inheritance) using suitable examples. Minimum 10 Examples on: Monohybrid & Dihybrid ratio, Incomplete dominance, Co-dominance, Multiple alleles, Sex linked inheritance, Linkage, Crossing over and Gene interaction.

10. Study of following insect vectors through permanent slides or photographs

1. Mosquito born diseases (Causal organism, symptoms and control measures)
 - a. Malaria
 - b. Dengue
 - c. Chikungunya
2. Housefly born diseases (Causal organism, symptoms and control measures)
 - a. Myiasis
3. Flea born diseases (Causal organism, symptoms and control measures)
 - a. Plague
 - b. Typhus fever

SUGGESTED READINGS

- Ruppert and Barnes, R.D. (2006). *Invertebrate Zoology*, VIII Edition. Holt Saunders International Edition.
- Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002). *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
- Young, J. Z. (2004). *The Life of Vertebrates*. III Edition. Oxford university press.
- Pough H. *Vertebrate life*, VIII Edition, Pearson International.
- Hall B.K. and Hallgrimsson B. (2008). *Strickberger's Evolution*. IV Edition. Jones and Bartlett Publishers Inc.
- Practical Zoology by Kotpal.
- Practical Zoology by Verma and Agarwal. Physiology by C.C. Chattarji. Vol. I & II.
- Lehane, M. J. (1991). *Biology of blood sucking insects*. Harper Collins Academic, London.
- Service M. W. (1986). *Blood sucking insects : Vectors of disease, studies in biology*. No. 167, Arnold, London.

SCHEME OF MARKING (THEORY)

SEM	Core Course	Evaluation	Marks	Total Marks	Answer Books	Standard of passing(Min)
I	DSC - 15A	Semester wise	50	100	As per Instructions	35
	DSC - 16A	Semester wise	50			
II	DSC - 15B	Semester wise	50	100	As per Instructions	35
	DSC - 16B	Semester wise	50			

SCHEME OF MARKING (PRACTICAL)

Practical examination is annul

SEM	Course	Marks	Evaluation	Sections	Standard of passing
I and II	DSC – A(DSC 15A and DSC 16A) Lab and DSC - B (DSC 15B and DSC 16B) Lab	50	Annual	As per Instructions	35%

Nature of Theory Question Paper

B.Sc. I Zoology

Q.1 Ten multiple choice question (one mark each)	10
Q. 2 Attempt any two (Ten marks each)	20
i.	
ii.	
iii.	
Q.3 Attempt any four (five marks each)	20
i.	
ii.	
iii.	
iv.	
v.	
vi.	

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

Bachelor of Science

Part-II

ZOOLOGY

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B. Sc. Part II Semester- III

ZOOLOGY

PAPER-V

DSC- (ANIMAL DIVERSITY-II)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1:

Protochordates: (4 hrs.)

General characters and Classification of Protochordata.

Agnatha: (4 hrs.)

General characters of Agnatha and Classification of cyclostomes up to classes.

Pisces: (4 hrs.)

General characters and Classification up to orders; Respiration in Fishes.

Amphibia: (4 hrs.)

General features and Classification up to orders; Parental care.

Unit 2:

Reptiles: (4 hrs.)

General characters and Classification up to orders; Venomous and non-venomous snakes, Biting mechanism in snakes.

Aves: (5 hrs.)

General characters and Classification up to orders; Digestive and Respiratory systems.

Mammals: (5 hrs.)

General characters and Classification up to orders; Circulatory of mammals.

B. Sc. Part II Semester- III
ZOOLOGY
Paper-VI
DSC- (BIOCHEMISTRY)
Theory: 30 hrs. (37.5 lectures of 48 minutes)
Marks-50 (Credits: 02)

Unit 1:

Nucleic acids:

DNA and RNA. (7 hrs.)

Structure and types of RNA .DNA- Secondary structure of Watson and Crick. Forms of DNA

Carbohydrate Metabolism: (8 hrs.)

Glycolysis, Krebs Cycle, Pentose phosphate pathway, Gluconeogenesis, Glycogenolysis.

, Review of electron transport chain.

Unit 2:

Lipid Metabolism: (5 hrs.)

Biosynthesis and β oxidation of fatty acids.

Protein metabolism: (5 hrs.)

Transamination, Deamination and Urea Cycle.

Enzymes: (5 hrs.)

Introduction- classification and nomenclature. Mechanism of action, Enzyme Kinetics,

Inhibition and Regulation. Isoenzymes, Co-enzymes and Co-factors.

B. Sc. Part II Semester- IV

ZOOLOGY

Paper-VII

DSC- (REPRODUCTIVE BIOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1: Functional anatomy of female reproduction: (15 hrs.)

Outline and histological structure of female reproductive system in rat and human; Ovary: folliculogenesis, ovulation, corpus luteum formation and regression; Steroidogenesis and secretion of ovarian hormones; Reproductive cycles in human and their regulation, changes in the female tract; Ovum transport in the fallopian tubes; Sperm transport in the female tract, fertilization; Hormonal control of implantation; pregnancy diagnosis Hormonal regulation of gestation, , Mechanism of parturition and its hormonal regulation; Lactation and its regulation.

Unit 2:

Functional anatomy of male reproduction: (8 hrs.)

Outline and histology of male reproductive system in human; Testis: Cellular functions, germ cell; Spermatogenesis: hormonal regulation; Epididymal function and sperm maturation; Accessory glands functions; Sperm transportation in male tract.

Unit 3: Reproductive Health: (7 hrs.)

Infertility in male and female: causes, diagnosis and management; Assisted Reproductive Technology: sex selection, sperm banks, frozen embryos, in vitro fertilization, ET, EFT, IUT, ZIFT, GIFT, ICSI, PROST; Modern contraceptive technologies.

B. Sc. Part II Semester- IV

ZOOLOGY

Paper-VIII

DSC- (APPLIED ZOOLOGY-I)

Theory: 30 hrs. (37.5 lectures of 48 minutes)

Marks-50 (Credits: 02)

Unit 1:

Introduction to Host-parasite Relationship: (4 hrs.)

Host, Definitive host, Intermediate host, Parasitism, Symbiosis, Commensalism, Reservoir, Zoonosis.

Unit 2:

Epidemiology of Diseases: (7 hrs.)

Transmission, Prevention and control of diseases: Tuberculosis, Typhoid.

Unit 3:

Rickettsia and Spirochaetes: (6 hrs.)

Brief account of *Rickettsia prowazekii*, *Borrelia recurrentis* and *Treponema pallidum*.

Unit 4:

Insects of Economic Importance: (8 hrs.)

Biology, Control and damage caused by *Helicoverpa armigera*, *Pyrilla perpusilla* and *Papilio demoleus*, *Callosobruchus chinensis*, *Sitophilus oryzae* and *Tribolium castaneum*

Unit 5:

Poultry Farming: (5 hrs.)

Principles of poultry breeding, Management of breeding stock and broilers, Processing and Preservation of eggs.

B. Sc. Part II
ZOOLOGY PRACTICAL-I
Marks-50 (Credits: 02)

PRACTICAL-I (Based on Animal diversity-II and Biochemistry of Semester-III).

Unit: 1

Animal diversity-II:

1. Study of the following specimens with reference to morphological peculiarities and classification upto orders: *Herdmania*, *Branchiostoma*, *Petromyzon*, *Sphyrna*, *Pristis*, *Torpedo*, *Labeo*, *Exocoetus*, *Anguilla*, *Ichthyophis/Ureotyphlus*, *Salamandra*, *Bufo*, *Hyla*, *Chelone*, *Hemidactylus*, *Chamaeleon*, *Draco*, *Crocodylus*, *Gavialis*.
2. Characters identifying venomous and non-venomous snakes: Russell's viper, Saw scaled viper, Common krait, Indian Cobra, Sea snake, Rat snake and Checkered keelback.
3. Study of any six common birds from different orders with the help of photographs and keys.
4. Study of the following specimens with reference to morphological peculiarities and classification up to orders: shrews, Bat, Squirrel and Loris.

An “**animal album**” containing photographs, cut outs, with appropriate write up about the above mentioned taxa. Different taxa/ topics may be given to students for this purpose.
5. Dissection of brain of fowl.
6. Temporary preparation of hyoid apparatus, sclerotic plates, Pecten and Collumella of fowl.
7. Temporary preparation of Cycloid, Ctenoid and Placoid scales in fishes.

Unit: 2

Biochemistry:

1. Qualitative tests to identify functional groups of carbohydrates and lipid in given solutions (Glucose, Fructose, Sucrose, Lactose and Lipid).
2. Estimation of total protein in given solutions by Lowry's method/ Quantitative estimation of amino acids by using Ninhydrin reaction.
3. Study of activity of salivary Amylase under optimum conditions.
4. Effect of Temperature, pH and salinity of activity of salivary amylase.
5. Estimation of total lipids from given sample.
6. DNA isolation from plant/animal.
7. Estimation of uric acid from bird excreta.

B. Sc. Part II
ZOOLOGY PRACTICAL-II
Marks-50 (Credits: 02)

PRACTICAL-II (Based on Reproductive Biology and Applied Zoology of Semester-IV).

Unit: 1

Reproductive Biology:

1. Study of animal house: set up and maintenance of animal house, breeding techniques, care of normal and experimental animals.
2. Examination of vaginal smear rats from live animals/Study of stages of estrus cycle through permanent slides.
3. Surgical techniques: principles of surgery in endocrinology. Ovaryectomy, hysterectomy, castration and vasectomy in rats. Demonstration or film only.
4. Examination of histological sections from photomicrographs/ permanent slides of rat: testis, epididymis and accessory glands of male reproductive systems; Sections of ovary, fallopian tube, uterus (proliferative and secretory stages), cervix and vagina.
5. Human vaginal exfoliate cytology.
6. Sperm count and sperm motility in rat/ Any mammal.
7. Study of modern contraceptive devices by photographs or models.

Unit: 2

Applied Zoology:

1. Study of arthropod vectors associated with human diseases: *Pediculus*, *Culex*, *Anopheles*, *Aedes* and *Xenopsylla*.
2. Study of insect damage to different plant parts/stored grains through damaged products/photographs.
3. Identifying feature and economic importance of *Helicoverpa* (*Heliothis*) *armigera*, *Papilio demoleus*, *Pyrilla perpusilla*, *Callosobruchus chinensis*, *Sitophilus oryzae* and *Tribolium castaneum*.
4. Field trip to poultry farm or animal breeding centre or any suitable place to study animal diversity or any place related to theory syllabus. Submission of field trip report (Printed/Hand writings).

Suggested readings for Paper V and VI:

- Berg, J. M., Tymoczko, J. L. and Stryer, L. (2006). Biochemistry. VI Edition. W.H Freeman and Co.
- Guyton, A.C. and Hall, J. E. (2011). Textbook of Medical Physiology, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company
- Hall B. K. and Hallgrimsson, B. (2008). Strickberger's Evolution. IV Edition. Jones and Bartlett Publishers Inc.
- Murray, R.K., Granner, D.K., Mayes, P.A. and Rodwell, V.W. (2009). Harper's Illustrated Biochemistry. XXVIII Edition. Lange Medical Books/Mc Graw3Hill.
- Nelson, D. L., Cox, M. M. and Lehninger, A.L. (2009). Principles of Biochemistry. IV Edition. W.H. Freeman and Co.
- Pough H. (2008). Vertebrate life, 8th Edition, Pearson International.
- Young, J. Z. (2004). The Life of Vertebrates. III Edition. Oxford university press.

Suggested readings for paper VII and VIII:

- Arora, D. R and Arora, B. (2001). Medical Parasitology. II Ed. CBS Pub., and Distributors.
- Atwal, A.S. (1986). Agricultural Pests of India and South East Asia, Kalyani
- Austin, C.R. and Short, R.V. (1982). Reproduction in Mammals. Cambridge University Press, London. Vol. 1.
- Chapman, R. F. (1998). The Insects: Structure and Function. IV Edition, Cambridge University Press, UK.
- Dennis, H. (2009). Agricultural Entomology. Timber Press (OR).
- Degroot, L.J. and Jameson, J.L. (2010). (6th eds). Endocrinology. W.B. Saunders and Company.
- Dunham R.A. (2004). Aquaculture and Fisheries Biotechnology Genetic Approaches. CABI publications, U.K.
- Hafez, E. S. E. (1962). Reproduction in Farm Animals. Lea & Fabiger Publisher.
- Hatcher, R.A. *et al.* (2001). The Essentials of Contraceptive Technology. Population Information Programme.
- Knobil, *et al.* (2014). (4th eds). The Physiology of Reproduction. Raven Press Ltd.
- Park, K. (2007). Preventive and Social Medicine. XVI Edition. B.B Publishers.
- Pedigo L. P. (2002). Entomology and Pest Management. Prentice Hall Publication.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.Sc Part- III

Zoology

Syllabus to be implemented from

June, 2020 onwards.

SHIVAJI UNIVERSITY, KOLHAPUR

Revised Syllabus for Bachelor of Science

B. Sc. III – Zoology –To be implemented from June 2020

GENERAL OBJECTIVES OF THE COURSE

1) Aims:

1. To impart the knowledge of animal science to the pupils.
2. To make the pupils to use the knowledge in their daily life.
3. To make the pupils aware of natural resources and environment.
4. Application of knowledge in Zoology for nutrition, agriculture & live stock.
5. To provide practical experiences which form a part of their learning processes.
6. To develop aptitude for scientific work & ability to pursue studies far beyond graduation.
7. To encourage the pupils to take life science as a carrier which is the need now a days.
8. To make the pupils fit for the society.

2) Objectives –

1. To impart knowledge is the basic aim of education. The students are expected to acquire the knowledge of animal science, natural phenomenon, manipulation of nature & environment by man.
2. Understanding the scientific terms, concepts, facts, phenomenon & their interrelationships.
3. Applications of the knowledge.
4. To develop skills in practical work, experiments & laboratory materials, instruments.
5. To develop interests in the subject & scientific hobbies.
6. To develop scientific attitude which is the major objective? This makes the students open minded, critical observations, curiosity, thinking etc.
7. Abilities to apply scientific methods, collection of scientific data, problem solving, organize science exhibitions, clubs etc.
8. Appreciation of the subject, contributions of scientists, scientific methods, scientific programs etc.

3) DURATION

- The course shall be full time course.
- The duration of course shall be three years.

4) PATTERN: Pattern of Examination will be semester for theory and annual for practical with INTERNAL ASSESSMENT (Project/Seminar/Field work for theory) Scheme

5) MEDIUM OF INSTRUCTION: The medium of instruction shall be in English.

6) STRUCTURE OF COURSE: B.Sc. III – Zoology THEORY – No. of papers: Eight,
No of practicals: Four SEMESTER V-Paper IX to XII & SEMESTER VI- Paper XIII to XVI

SEMESTER-V Theory

Sr. No.	Subject	Marks	University	Internal
1	Zoology Paper- IX	50	40	10
2	Zoology Paper- X	50	40	10
3	Zoology Paper- XI	50	40	10
4	Zoology Paper- XII	50	40	10

Total=200

SEMESTER-VI Theory

Sr. No.	Subject	Marks	University	Internal
1	Zoology Paper- XIII	50	40	10
2	Zoology Paper- XIV	50	40	10
3	Zoology Paper- XV	50	40	10
4	Zoology Paper- XVI	50	40	10

Total = 200

PRACTICALS- Annual

09	Practical—V	50
10	Practical – VI	50
11	Practical – VII	50
12	Practical – VIII	50

Total 200

Total = 600

7. SCHEME OF TEACHING AND EXAMINATION (Teaching scheme - Hrs/Week)

No	Sem. - V	Sem. - VI	L	P	Total
1	Paper No IX Paper No. XIII	Paper No IX Paper No. XIII	3		
2	Paper No IX Paper No. XIII	Paper No IX Paper No. XIII	3		
3	Paper No IX Paper No. XIII	Paper No IX Paper No. XIII	3		
4	Paper No IX Paper No. XIII	Paper No IX Paper No. XIII	3		
			12		12
1	Practical V			5	
2	Practical VI			5	
3	Practical VII			5	
4	Practical VIII			5	
				20	20
	Total				32

8) SCHEME OF EXAMINATION

Question paper will be set in the view of the / in accordance with the entire syllabus and preferably covering each unit of syllabi.

9) EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS (FOR REVISED SYLLABUS)

Refer copy of revised syllabus

10) OTHER FEATURES

1. Required Books, Journals stated in each syllabus of Part I, Part II and Part III Zoology and Fisheries.

A) LIBRARY : Reference and Text Books, Journals, and Periodicals, Reference Books for Advanced Studies.

B) SPECIFIC EQUIPMENTS: Necessary to run the Course (T.V., L.C.D., and Overhead Projector), (Computer and necessary software's, operating systems etc.)

C) LABORATORY SAFETY EQUIPMENTS

- Fire Extinguishers at least two sets in each laboratory. (Lab. area 600 sq.ft.)

- Leakage of gases be avoided.
- Primary medical aid box (First Aid Kit)
- Sugar / Glucose – 500 gm pack: Pinch of sugar and a cup of drinking water in hypoglycemic condition. OR In extreme weakness of student or person concerned.
- Rules of animal ethics should be strictly followed.

D) LABORATORY INSTRUCTIONS

- 1) Always wear an apron inside the laboratory. Do not wear it outside.
- 2) Do not drink or eat inside the laboratory.
- 3) Do not place pencil, fingers or any material in the mouth. Moisten labels with water.
- 4) Use microscopes and other instruments carefully.
- 5) Discard all used glassware such as test tube, pipettes, petry-plates, glass slides in a receptacle meant for it.
- 6) Put cotton plugs, papers, matches, waste dissection material etc. in a waste-paper basket. Do not throw them in sink not leave them on desk or floor.
- 7) Regard all cultures as pathogenic. Take every precaution against infection.
- 8) Report all accidents to the instructor immediately.
- 9) Wash hands thoroughly with soap and water before and after dissection and experiment.
- 10) Always turn off water, gas and electricity before leaving the laboratory.
- 11) When students enter in laboratory they should have – A Laboratory Journal, pencil and eraser, foot rule, dissection box with dissecting instruments, a small napkin.
- 12) All drawings must be made with drawing pencil only.
- 13) As the journal is to represent student's bonafide work during the whole year, student should keep it as clean as possible and DO NOT LOOSE IT
- 14) Students should not forget that unless their journals are certified, they are not allowed to appear for the university examination

11) COMMON NATURE OF QUESTION FOR THEORY

PAPER: SEMISTER – V Zoology Paper (IX, X, XI, XII)

SEMISTER – VI Zoology Paper (XIII, XIV, XV, XVI)

Q. 1	Multiple Choice Questions (Eight questions)	08
Q. 2	Long answer questions (Attempt any two out of three)	16
	A.	
	B.	
	C.	
Q. 3	Shorn Notes (Attempt any four out of Six)	16
	a.	
	b.	
	c.	
	d.	
	e.	
	f.	

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- IX

DSE-E29 (COMPARATIVE ANATOMY OF VERTEBRATES)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1: Integumentary System	4
1. Generalized structure of integument	
2. Functions of Integument	
3. Soft and Hard epidermal derivatives	
4. Hard epidermal derivatives	
Unit 2: Skeletal System	4
1. Vertebral column	
2. Appendicular skeleton	
Unit 3: Digestive System	4
Brief account of alimentary canal and digestive glands	
Unit 4: Respiratory System	4
Brief account of Gills, lungs, air sacs	
Unit 5: Circulatory System	4
Evolution of heart and aortic arches	
Unit 6: Evolution of Kidney	3
Succession of kidney	
Unit 7: Nervous System	3
Comparative account of brain	
Unit 8: Sense Organs	4
Comparative account of ear and eye of vertebrates	

SUGGESTED READINGS:

1. Kardong, K.V. (2005) Vertebrates' Comparative Anatomy, Function and Evolution. IV Edition. McGraw-Hill Higher Education. Kent, G.C. and Carr R.K. (2000). Comparative Anatomy of the Vertebrates. IX Edition
2. The McGraw-Hill Companies. Hilderbrand, M and Gaslow G.E. Analysis of Vertebrate Structure, John Wiley and SonsWalter, H.E. and Sayles, L.P; Biology of Vertebrates, Khosla Publishing House.

3. Outlines of comparative anatomy, Romer & Parsons, Central Book Depot, The Vertebrate Body (Saunders).
4. Biology of Vertebrates Walter & Sayles; (McMillan).
5. Chordate Zoology, P.S. Dhami & J. K. Dhami - R. Chand & Co., New Delhi.
6. Modern Textbook of Zoology, R. L. Kotpal, Rastogi Publications, Meerut.
7. The Life of Vertebrates, 3rd Edition, 1993, J. Z. Young E. L. B.S. Oxford.
8. Chordate Zoology - E.L. Jordan, S. Chand & Co., New Delhi.
9. The Phylum Chordata - 1987, H.H. Newman, Distributor Satish Book Enterprise, Agra. 8. Comparative Anatomy of the Vertebrates G. C. Kent.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- X

DSE-F29 (Molecular Cell Biology and Animal Biotechnology)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1: Molecular Biology –

7

- 1) DNA Replication (Semiconservative mode)
- 2) DNA Damage and Repair mechanism
- 3) Regulation of gene expression- Operon concept
- 4) Genetic Code:
 - i) Properties of Genetic code
 - ii) Codon assignment
 - iii) Wobble hypothesis

Unit 2: Protein synthesis

8

- A) Transcription
 - i) Process in prokaryotes and eukaryotes
 - ii) RNA polymerase
 - iii) Post transcriptional modification in RNA
- B) Translation in prokaryotes and eukaryotes
 - i) Initiation
 - ii) Elongation
 - iii) Termination

Unit 3 : Molecular Techniques in Gene manipulation

15

1. Restriction enzymes: Nomenclature, detailed study of Type II.
2. Characteristics of Cloning vectors: Plasmids, Cosmids, Phagemids, Lambda Bacteriophages
3. Gene cloning: Transformation techniques by Calcium chloride method and electroporation
4. Construction of genomic and cDNA libraries
5. Southern, Northern and Western blotting
6. DNA sequencing: Sanger method
7. Polymerase Chain Reaction,
8. DNA Finger Printing
9. DNA micro array

SUGGESTED READINGS:

1. Brown, T.A. (1998). Molecular Biology Labfax II: Gene Cloning and DNA Analysis. II Edition, Academic Press, California, USA. Glick, B.R. and Pasternak, J.J. (2009).
2. Molecular Biotechnology - Principles and Applications of Recombinant DNA. IV Edition, ASM press, Washington, USA. Griffiths, A.J.F., J.H. Miller, Suzuki, D.T., Lewontin, R.C. and Gelbart, W.M. (2009).
3. An Introduction to Genetic Analysis. IX Edition. Freeman and Co., N.Y., USA. Snustad, D.P. and Simmons, M.J. (2009).
4. Principles of Genetics. V Edition, John Wiley and Sons Inc. Watson, J.D., Myers, R.M., Caudy, A. and Witkowski, J.K. (2007).
5. Recombinant DNAGenes and Genomes- A Short Course. III Edition, Freeman and Co., N.Y., USA. Beauchamp, T.I. and Childress, J.F. (2008).
6. Principles of Biomedical Ethics. VI Edition, Oxford University Press.
7. Cell and Molecular Biology, 8th Edition, De. Robertis EDP and De Robertis Jr. EMF, Lippincott Williams and Wilkins, Philadelphia.
8. Cell Biology, C.B. Powar, Himalaya Publication House.
9. Cell and Molecular Biology, E.J. Dupraw, Academic Press, New York.
10. Cell Structure and Function - A. G. Loewy, P. Siekevitz, J. R. Meninger & J. A. N. Gallant, Saunder College, Philadelphia.
11. Molecular Biology of the Cell - 3rd Edition, Bruce Alberts, Dennis Bray, Julian Lewis, Martin Raff, K. Roberts & James D. Watson, Garian Publishing, New York.

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Syllabus of B.Sc. Part III Zoology

Zoology Paper- XI

DSE-F30 (Biotechniques and Biostatistics)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit I: Genetically Modified Organisms

9

1. Production of cloned and transgenic animals:
 - a. Nuclear Transplantation
 - b. Retroviral Method
 - c. DNA microinjection
2. Applications of transgenic animals:
 - a. Productions of pharmaceuticals
 - b. Production of donor organs
3. Knockout mice.

Unit II: Culture Techniques and Applications

6

- a. Animal cell culture: Introduction, principle and applications
- b. Stem Cells: Introduction to stem cells
 - i) Potency of stem cells: Totipotency, Pluripotency, Multipotency, Unipotency
 - ii) Sources of stem cells-Embryo, Fetal, Adult, Bone marrow

Unit III: Biostatistics

15

- a. Classification of Biological data
- b. Frequency distribution
- c. Tabulation
- d. Graphical representation of data
- e. Measures of central tendency (Mean, Median, Mode)
- f. Dispersion – Mean, deviation & standard deviation
- g. Correlation – Scattered diagram, Karl Pearson's correlation coefficient and Spearman's rank correlation coefficient.

SUGGESTED READINGS:

1. Brown, T.A. (1998). Molecular Biology Labfax II: Gene Cloning and DNA Analysis. I Edition, Academic Press, California, USA. Glick, B.R. and Pasternak, J.J. (2009). Molecular Biotechnology - Principles and

2. Applications of Recombinant DNA. IV Edition, ASM press, Washington, USA. Griffiths, A.J.F., J.H. Miller, Suzuki, D.T., Lewontin, R.C. and Gelbart, W.M. (2009)
3. An Introduction to Genetic Analysis. IX Edition. Freeman and Co., N.Y., USA. Snustad, D.P. and Simmons, M.J. (2009).
4. Principles of Genetics. V Edition, John Wiley and Sons Inc. Watson, J.D., Myers, R.M., Caudy, A. and Witkowski, J.K. (2007).
5. Recombinant DNA Genes and Genomes- A Short Course. III Edition, Freeman and Co., N.Y., USA. Beauchamp, T.I. and Childress, J.F. (2008).
6. Principles of Biomedical Ethics. VI Edition Oxford University Press.
7. Elements of Biotechnology - P. K. Gupta, Rastogi Publications.
8. Gene V & VI, 1994, Lewin B., Oxford University Press, Oxford.
9. Concept of Genes-Pearson Edition 9. Cell and Molecular Biology

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- XII

DSE-F31 (AQUATIC BIOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1: Aquatic Biomes **10**

- a. Freshwater ecosystem (lakes, wetlands, streams and rivers),
- b. Estuaries
- c. Intertidal zones
- d. Oceanic pelagic zone
- e. Marine benthic zone
- f. Coral reefs

Unit 2: Freshwater Biology **10**

- 1. Lakes
 - a. Lake as an Ecosystem
 - b. Lake Morphometry
 - c. Physico-chemical characteristics
 - i. Light
 - ii. Temperature
 - iii. Thermal Stratification
 - iv. Dissolved solids
 - v. Carbonates
 - vi. Bicarbonates
 - vii. Phosphates and Nitrates
 - viii. Turbidity
 - ix. Dissolved gases (Oxygen Carbon dioxide)
 - x. Nutrient Cycle – (Nitrogen, Sulphur and Phosphorus)
- 2. Streams
 - a. Different stages of stream development
 - b. Physico-chemical Environment
 - c. Adaptation of hill stream fishes

Unit 3: Endocrinology **10**

- a. Study of endocrine glands – Anatomy and histology
- b. Hormones- Nature, role, regulation and disorders with reference to the following
thyroid gland, parathyroid gland, adrenal gland and islets of Langerhans

SUGGESTED READINGS:

1. Anathakrishnan : Bioresources Ecology 3rd Edition
2. Goldman : Limnology, 2nd Edition
3. dum and Barrett : Fundamentals of Ecology, 5th Edition
4. Pawlowski : Physicochemical Methods for Water and Wastewater Treatment, 1st
5. Edition Wetzel : Limnology, 3rd edition
6. Trivedi and Goyal : Chemical and biological methods for water pollution studies
7. Welch : Limnology Vols. I-II
8. Animal Physiology – Nelson (Cambridge)
9. Endocrinology – Hadely
10. General Endocrinology – Bangara and Turner (W.B. Saunders)
11. Reproductive Physiology – Nalbandov A. V.

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Syllabus of B.Sc. Part III Zoology

Zoology Paper- XIII

**DSE-E30 (DEVELOPMENTAL BIOLOGY OF
VERTEBRATES)**

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1 : Gametogenesis	6
1. Types of Eggs	
2. Fertilization – Types and Process of Fertilization	
3. Types of Cleavages	
Unit 2: Early Development of Frog	6
1. Structure of mature egg and its membranes	
2. Cleavage	
3. Blastula and its fate map	
4. Process of gastrulation	
5. Types of Morphogenic Movements	
6. Fate of three germinal layers	
7. Neurulation	
8. Metamorphosis in frog and its hormonal regulation	
Unit 3: Chick Embryology	15
1. Structure of sperm	
2. Structure of egg and vitellogenesis	
3. Fertilization and cleavage	
4. Blastula and its fate map	
5. Process of gastrulation	
6. Organogenesis	
a. Development of neural tube and brain up to 72 hours of incubation	
b. Development of gut up to 72 hours of incubation	
c. Development of blood and heart up to 72 hours of incubation	
d. Foetal membranes and significance	
Unit 4: Late Embryonic Development	3
1. Implantation of embryo in human being	
2. Placenta – Formation, types and significance	

SUGGESTED READINGS:

1. An Introduction to Embryology 1981, Balinsky B.L., Saunders College, Philadelphia.
2. Developmental Biology; Patterns/Principles/Problems, 1982, Saunders J. W. Collier MacMillan, Publishers, London.
3. Developmental Biology, 1997, 3rd Edition, Gilbert S.F. Saunder Associates Inc. U.S.A.
4. Developmental Biology, 1992 3rd edition, Browder L.W. Erickson C.A. & Williams, R J. Saunders College, Publications, London.
5. A Text Book of Embryology, Dr. Puranik P. G., S. Chand & Co. 6. Developmental Biology, 1984, Browder L.W. , Saunders College Publications, U.S.A.
6. Development of Chick embryo, 1972, Lillie. 8. Developmental Biology, 1991, 3rd Edition, Sinaur Associates, Inc. U.S.A. Gilbert, S. F. (2006).
7. Developmental Biology, VIII Edition, Sinauer Associates, Inc., Publishers, Sunderland, Massachusetts, USA. Balinsky, B.I. (2008).
8. An introduction to Embryology, International Thomson Computer Press. Carlson, Bruce M (1996). Patten's Foundations of Embryology, McGraw Hill, Inc.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- XIV

DSE-E32 (IMMUNOLOGY)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1: Overview of the Immune System	7
1. Introduction to basic concept in immunology	
2. Principles of innate and adaptive immune system	
Unit 2: Cells and Organs of the immune system	8
1. Haematopoiesis	
2. Cells of immune system	
3. Organs (Primary and Secondary lymphoid organs) of the immune system	
4. Immune responses- Humoral and cell mediated	
Unit 3 : Antigens	7
1. Basic properties of antigens	
2. B and T cell epitopes	
Unit 5: Immunoglobulin / Antibodies	8
1. Structure, Classes and Functions of Antibodies	
2. Antigen – Antibody interactions	
3. Hybridoma Technology: Monoclonal Antibodies in diagnosis and therapeutics	

SUGGESTED READINGS:

1. Kindt, T. J., Goldsby, R.A., Osborne, B. A. and Kuby, J (2006). Immunology, VI Edition. W.H. Freeman and Company. David, M., Jonathan, B., David, R. B. and Ivan R. (2006).
2. Immunology, VII Edition, Mosby, Elsevier Publication. Abbas, K. Abul and Lichtman H. Andrew (2003.) Cellular and Molecular
3. Immunology. V Edition. Saunders Publication.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- XV

DSE-E31 (Applied Zoology - II)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit 1: Apiculture	8
1. Types and casts of honey bee	
2. Honey Comb	
3. Bee Keeping	
a. Artificial models of bee hive – Newton and Langstroth models	
b. Bee keeping Equipments	
c. Extraction of Honey	
4. Medicinal Value of Honey	
Unit 2 : Animal Husbandary	5
1. Indigenous and exotic breeds of cattle	
2. Preservation and artificial insemination in cattle	
3. Induction of early puberty	
4. Synchronization of estrus in cattle	
5. Commercial importance of dairy farming	
Unit 3: Pearl culture	4
1. Species of oyster	
2. Process of Pearl formation: natural and artificial	
3. Maintenance of oysters	
4. Harvesting	
5. Importance of Pearl	
Unit 4: Freshwater prawn culture	3
1. Species of Prawn	
2. Site selection	
3. Farm Construction	
4. Production system: fertilization, Larval Development, Food and feeding	
5. Harvesting	
Unit 5: Fish Technology	5
Genetic improvements in aquaculture industry:	
1. Induced breeding	
2. Transportation of fish seed	
3. Feeding and development	
4. Harvesting and Marketing	

Unit 4 : Goat Farming-

5

1. Breeds
2. Feeding
3. Housing
4. Economic Importance

SUGGESTED READINGS:

1. Mollusca - Hyman.
2. Prawn and Prawn Fishery of India - Kurian.
3. Fish Culture - K. H. Alikuhni.
4. Fish Culture - Lagter.
5. Fishes of India. - Khanna.
6. Hand Book of Animal Husbandary and Dairy - Mudlyer.
7. Bee keeping in India - Sardar Sing.
8. Bee Keeping in India- M. G. Smith.
9. Poultry keeping in India - Naidu P.N.M.
10. Poultry Husbandary - M. A. Jule. 18. Poultry Husbandary - Moorthy.
11. Outlines of Dairy Technology - Sukumar De.
12. Milk and milk products - Clarence Henry Eckles, Willes Barnes Combs, Harold Macy

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Paper- XVI

DSE-F32 (Insect Vectors and Histology)

Theory: 30 hrs. (37.5 lectures of 48 minutes) (Credits 2)

Unit I: Dipteran as Disease Vectors

18

1. Dipteran as important insect vectors
 - a. Mosquitoes
 - b. Sand fly
 - c. Houseflies
2. Study of mosquito born diseases –
 - a. Malaria
 - b. Dengue
 - c. Chikungunya
 - d. Viral encephalitis
 - e. Filariasis
3. Control measures of Mosquitoes
4. Study of house fly as important mechanical vector
 - a. Myiasis, Control of house fly

Unit II: Siphonoptera as Disease Vectors

6

1. Fleas a important insect vectors
2. Host-specificity
3. Study of Flea-borne diseases
 - a. Plague
 - b. Typhus fever
4. Control of fleas

Unit III: Histology of mammalian organs

6

Tooth, tongue, Salivary glands, Stomach, Duodenum, Ileum, Liver, Pancreas, Kidney

SUGGESTED READINGS:

1. Imms, A.D. (1977). A General Text Book of Entomology. Chapman & Hall, U K
Chapman, R.F. (1998).
2. The Insects: Structure and Function. IV Edition, Cambridge University Press, U K
Pedigo L.P. (2002).
3. Entomology and Pest Management. Prentice Hall Publication Mathews, G. (2011).
4. Integrated Vector Management: Controlling Vectors of Malaria
5. Insect Vector Borne Diseases. Wiley-Blackwell
6. Textbook of Histology: Bloom W and Fawcett D.W.
7. Histology: Lippincott. Ham, A.W.
8. Histology: Greep, R.O and well, L.
9. An Atlas of Histology. Heinemann Educational Book Ltd. London and ELBS: Freeman.
W.H. and Bracegirdle, B.
10. Microscopic Anatomy of vertebrates, Lea and Febigen. Philadelphia: Kendall, J.I.
11. Histology of Mammals: Athavale, M.V and Latey, A. N.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Practical – I (Credits-02)

Comparative anatomy and developmental biology of vertebrates

I. Comparative Study of following

1. V.S. of skin of vertebrates
2. Digestive system of vertebrates
3. Respiratory system of vertebrates
4. Heart of vertebrates
5. Brain of vertebrates
6. Osteology
 - a) The skeleton of fowl (Disarticulated)
 - b) The skeleton of rabbit (Disarticulated)
 - c) Mammalian skull's – (any one herbivorous and one carnivorous animal)

II. Study of developmental stages of frog.

1. Cleavage
2. Blastulation
3. Gastrulation
4. Neurulation
5. Stages of metamorphosis in frog
 - a. External gill stage
 - b. Internal gill stage
 - c. Forelimb stage
 - d. Hind limb stage
 - e. Tail bud stage
 - f. Juvenile stage

III. Study of Chick Embryo

12. Whole mount of chick embryo – 18, 24, 33, 48 and 72 hours.
13. T.S. of chick embryo – 18, 24, 33, 48 and 72 hours.

VI. Preparation of whole mount chick embryo.

IV. Study of Histological structures of placenta (permanent slide or microphotographs)

- 1) Epitheliochorial
- 2) Endotheliochorial
- 3) Hemochorial
- 4) Syndesmochorial
- 5) Hemoendothelial

V. Examination of Gametes – Frog or Rat sperm & ovum through slides or microphotographs.

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Practical – II (Credits-02)

Applied Zoology – II and Immunology

Unit 1: Applied Zoology

1. Apiculture

- a. Casts of Honey Bees
- b. Bee Hive (Photographs or models)
- c. Pollen Basket
- d. Sting Apparatus
- e. Honey
- f. Newton's model of Bee Hive (Photographs or models)
- g. Bee keeping Equipments (Photographs or models)

2. Preservation & Artificial insemination in cattles

8. Pearl culture

- a. Species of oyster
- b. Process of Pearl formation: natural and artificial
- c. Importance of Pearl

9. Freshwater prawn culture

- a. Species of Prawn
- b. Site selection
- c. Farm Construction
- d. Production system
- e. Harvesting

10. Goat farming

- a. Breeds (any four = 2 Indigenous and 2 Exotic)
- b. Housing
- c. Feeding

6. Visit to goat farm or animal breeding centre – submission of visit report

B] Immunology

1. Study of lymphoid organ's (Photograph, Models, Videos)
2. Histological study of (slides or photographs)
 - a. Spleen
 - b. Thymus
 - c. Lymph nodes
3. Preparation of stained blood smears to study various types of blood cells
4. Determination of ABO blood groups
5. Demonstration of
 - a. ELISA
 - b. Immuno-electrophoresis

C] Cell counting and viability test from splenocytes of farm breed animals / cell lines

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Practical – III (Credits-02)

Molecular biology, Animal biotechnology, Biostatistics & Biotechniques

I] Microtechnique

1. Preparation of permanent histological slides by HE technique
2. Histochemical technique
 - a. AB PH 1 technique
 - b. AB PH 2.5 technique
 - c. PAS technique

II] Biotechniques

1. Chromatography – Separation of amino acid by paper chromatography
2. DNA isolation
3. Demonstration of DNA by feulgan technique
4. To study the following technique (photographs)
 - a) Southern blotting
 - b) Northern blotting
 - c) Western blotting
 - d) DNA sequencing (Sangers method)
 - e) PCR
 - f) DNA fingerprinting

III) Biostatistics

Any 10 example based on theory

- IV] Project** (any suitable work possible in local area or from the syllabus) Report of the same to be submitted at the time of practical examination

SHIVAJI UNIVERSITY, KOLHAPUR

Syllabus of B.Sc. Part III Zoology

Zoology Practical – IV (Credits-02)

Aquatic biology, insect vector & diseases

A] Aquatic biology

1. Determination of area of a lake using graphimetric & gravimetric method
2. Identify the zooplanktons present in lake ecosystem
3. Determination of turbidity or transparency from nearby lake or water body
4. Determination of dissolved oxygen
5. Determination of free CO₂
6. Determination of alkalinity (Carbonates & bicarbonates) from water collected from nearby lake or water body
7. Estimation of total hardness of water
8. Instruments used in limnology & their significance
 - a) Secchi disc
 - b) Van Dorn bottle
 - c) Conductivity meter
 - d) Turbidity meter
 - e) PONAR grab sampler
9. Visit to seashore/water reservoir/animal sanctuary to study animal diversity. Report of tour should be submitted at the time of practical examination
10. Endocrine glands (Anatomy and Histology) – Thyroid, Parathyroid, Adrenal and Pancreas.

B] Insect Vectors & diseases

10. Study of different kinds of mouthparts of insects
 - a) Chewing & biting
 - b) Chewing & lapping
 - c) Piercing & sucking
 - d) Sponging
 - e) Siphoning
11. Study of following insect vectors through permanent slides or photograph
 - a) Insect vector – Mosquito, sandfly & housefly
 - b) Study of mosquito born diseases – Malaria, dengue, chikungunya, encephalitis, filariasis
 - c) Study of sandfly born diseases – Visceral leishmanians, Cutaneous leishmanians, Phlebotomus fever
 - d) Study of housefly born diseases – Myiasis
 - e) Study of flea born diseases – Plague, typhus
12. Histology of Following mammalian organs-
 - a) Tooth (V.S.) b) Tongue c) Salivary gland d) Stomach e) Duodenum f) Ileum g) Liver h) Pancreas i) Kidneys

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A++' Grade

NATIONAL EDUCATION POLICY (NEP-2020)

Syllabus For

B. Sc. Part-I
Physics

Syllabus to be implemented from AUGEST, 2022 onwards

Department of
Physics, Shivaji
University, Kolhapur
B. Sc. –Part-I (Physics) Course Structure

NOTE:

The following in a nutshell gives the scope and extent of each course offered. Each core theory course has two levels of teaching: Lectures and practical's.

B.Sc. (Physics) NEP-2020				
Part-I (Semester-I)				
	Sr. No	Course code	Course Title	Credits
CGPA	1	DSC A1	Mechanics - I	2
	2	DSC A2	Mechanics - II	2
	3	DSC B1	Electricity and Magnetism-I	2
	4	DSC B2	Electricity and Magnetism-II	2
	5	DSC A DSC B	i. Lab - Mechanics ii. Lab - Electricity & Magnetism	2 2
Non-CGPA	6	AECC-1 AECC-2	English for communication English for communication	
Non-CGPA	7	SEC	Skill Enhancement Course	

Science Structure

Sem	DSC	DSE/OEC/G EC/ IDS	AECCLangages and Env Sci	SEC (Multidiscipli nary)	Total Credits
I	4x(4+2)= 24		1x 4= 4 ENG	SEC -I(1) VBC(1)	30
II	4x(4+2)= 24		1x 4= 4 ENG	SEC-II(2)	30
III	3x (4+4) = 24	--	-	SEC-III(2)	26
IV	3x (4+4) = 24	--	1x 4= 4 (EVS)	SEC- IV(2)	30
V		DSE 4x (2x2) = 16	1x 4= 4 ENG	SEC-V(2)	22
VI		DSE 4x (2x2) = 16	1x 4= 4 ENG	SEC -VI(2)	22
			Total		160

Shivaji University, Kolhapur
B. Sc. Part – I Semester-I(NEP-2020)
PHYSICS PART-I
DSC A1 MECHANICS-I
Theory: 30 Hours Marks-50 (Credits: 02)

Unit-I

1. **Vector Algebra and Elementary Calculus** : (9 Hours)
Revision– (Vector Algebra: Components of Vectors and Unit Vector, Addition and Subtraction of Vectors), Scalar product, Vector product and their properties, Scalar triple product and its physical significance, Properties of scalar triple product, Vector triple product, properties of vector triple product. Derivatives of a vector with respect to a parameter (velocity and acceleration).
2. **Ordinary Differential Equations:** (6 Hours)
Differential equation, degree, order, linearity and homogeneity of differential equation, Types of Differential Equations: Ordinary and Partial differential equations, First order homogeneous differential equations, Second order homogeneous differential equations with constant coefficients, Examples.

Unit -II

1. **Conservation Theorems** : (9 Hours)
Single particle: Conservation theorem for linear momentum of a particle, Conservation theorem for angular momentum of a particle, work-energy theorem, Conservation theorem for energy of a particle.
System of particles: Center of mass, Conservation theorem for linear momentum, Conservation theorem for angular momentum, Conservation theorem for energy.
2. **Rotational Motion:** (6 Hours)
Angular velocity, Angular momentum, Torque, Kinetic energy of rotation, Moment of Inertia, Moment of inertia of a spherical shell about its diameter, Moment of inertia of solid cylinder about its axis of symmetry.

Reference Books:

1. Mathematical Physics -B. S. Rajput, 25th edition 2013, PragatiPrakashan, Meerut.
2. Mechanics – D. S. Mathur, 2009, S. Chand & Company Ltd., New Delhi.
3. Mathematical Physics – B. D. Gupta, 3rd edition, 2009, Vikas Publishing House Pvt. Ltd., New Delhi.
4. Mathematical Physics – P. P. Gupta, R. P. S. Yadav, G. S. Malik, 4th edition 1983-84, KedarNath Ram Nath, Meerut, Delhi.
5. University Physics. FW Sears, MW Zemansky and HD Young, 13/e, 1986, Addison - Wesley.
6. Mechanics Berkeley Physics course, V.1: Charles Kittel, et. Al. 2007, Tata McGraw Hill.
7. Physics – Resnick, Halliday& Walker 9/e, 2010, Wiley Eastern Ltd, New Delhi.
8. Engineering Mechanics, Basudeb Bhattacharya, 2ndedn., 2015, Oxford University Press.

9. University Physics, Ronald Lane Reese, 2003, Thomson Brooks/Cole.
10. Physics – S.G. Starling and WoodalLongmams and Green Co. Ltd.
11. Elements of properties of matter – D.S. Mathur, 2016, ShyamLal Charitable Trust, New Delhi.
12. A text Book of properties of matter–N.S. Khare and S. Kumar, Atmaram and Sons New Delhi.
13. Concepts of Physics Vol. I - H.C. Verma, 2014, BharatiBhavan Publishers.

Theory: 30 Hours
Marks-50 (Credits: 02)

Unit-I

1. Gravitation

(9 Hours)

Newton's Law of Gravitation, Motion of a particle in a central force field (motion in a plane, angular momentum is conserved), Kepler's Laws (statement only), Satellite in circular orbit and applications, Geosynchronous orbits, Weightlessness, Basic idea of global positioning system (GPS).

2. Oscillations

(6 Hours)

Simple harmonic motion, Differential equation of SHM and its solutions, Kinetic and Potential Energy, Total energy and their time averages, Damped oscillations, Forced oscillations.

Unit-II

1. Elasticity

(9 Hours)

(Revision Hooke's law, Stress-strain diagram, Definition of elastic constants (Y , η , K and σ)), Bending of beam, Bending moment, Cantilever (without considering weight of cantilever), Beam supported at both the ends (without considering weight of beam), Torsional oscillation and torsional couple per unit twist, Work done in twisting a wire, Torsional pendulum-Determination of rigidity modulus and moment of inertia, Determination of elastic constants (Y , η , and σ) by Searle's method.

2. Surface Tension

(6 Hours)

Surface tension (definition), Molecular theory of surface tension, Angle of contact, Young equation and wettability, Relation between surface tension, excess of pressure and radius of curvature, Experimental determination of surface tension by Jaeger's method, Factors affecting surface tension, Applications of surface tension.

Reference Books:

1. University Physics. F W Sears, M W Zemansky and H D Young 13/e, 1986. Addison-Wesley
2. Mechanics Berkeley Physics course, v.1: Charles Kittel, et. Al. 2007, Tata McGraw - Hill.
3. Physics – Resnick, Halliday & Walker 9/e, 2010, Wiley eastern Ltd, New Delhi.
4. Engineering Mechanics, Basudeb Bhattacharya, 2nd edn., 2015, Oxford University Press
5. University Physics, Ronald Lane Reese, 2003, Thomson Brooks/Cole.
6. Physics – S.G. Starling and Woodall Longmans and Green Co. Ltd.
7. Elements of properties of matter – D.S. Mathur, Shamlal Charitable trust New Delhi.
8. A text Book of properties of matter – N.S. Khare and S. Kumar, Atmaram and sons, New Delhi.
9. Concepts of Physics – Vol.1 H.C. Verma - Bharati Bhavan Publishers.

PHYSICS PART-III
DSC B1 ELECTRICITY AND MAGNETISM-I

Theory: 30 Hours
Marks-50 (Credits: 02)

Unit-I

Vector Calculus

(15 Hours)

Introduction, Del operator, gradient of scalar field and its physical significance, divergence of vector field and its physical significance, curl of vector field, line integral, surface integral, volume integral (definitions only), Gauss divergence theorem (statements and proof), Statements of Stoke's theorem, Greens symmetrical theorem.

Unit-II

Electrostatics

(15 Hours)

Electrostatic field, electric flux, Gauss's theorem of electrostatics, electric potential as line integral of electric field, potential due to a point charge, electric dipole, uniformly charged spherical shell and solid sphere, calculation of electric field from potential, capacitance of an isolated spherical conductor, parallel plate, spherical and cylindrical condenser, energy per unit volume in electrostatic field, dielectric medium, polarization vector, displacement vector, Gauss's theorem in dielectrics, Parallel plate capacitor completely filled with dielectric.

Reference Books:

1. Electricity and Magnetism, Edward M. Purcell, McGraw-Hill Education, Cambridge University Press, (1985).
2. Electricity and Magnetism, J.H. Fewkes & J. Yarwood., Oxford Univ. Press. Vol. - I, (1991).
3. Electricity and Magnetism, D C Tayal, Himalaya Publishing House, 2nd Edition (1988).
4. University Physics, Ronald Lane Reese, Thomson Brooks/Cole Publishing Company, (2003).
5. D.J. Griffiths, Introduction to Electrodynamics, Cambridge University Press, Pearson, (1999).
6. Electricity and Magnetism – N. S. Khare and S. S. Shrivastav, Atma Ram & Sons, Delhi. 9th edition (1976).
7. Foundations of Electromagnetic Theory, John R Reitz, Frederick J. Milford, Addison-Wesley Publishing Company 4th edition (2008)
8. University Physics– Hugh D. Young and Roger A. Freedman, Addison- Wesley Publishing Company, Inc., 9th edition, (1996)
9. Concepts of Physics, H. C. Verma, Bharti Bhawan publisher, Vol-2, (2016)
10. Mathematical Physics, B. D. Gupta, Vikas Publication House Pvt Ltd, 4th edition, (2009).
11. Electricity and Magnetism by R. Murugesan, S. Chand & Co., New Delhi, (2008).

Theory: 30 Hours
Marks-50 (Credits: 02)

UNIT I

- 1. A.C. Circuits (07 Hours)**
Complex numbers and their application in solving a. c. series LCR circuit using j operator and phasor diagram, Resonance in LCR series circuit, Sharpness of resonance (qualitative treatment only), Resonance in LCR Parallel circuit, complex Impedance, Reactance, Admittance, and Susceptance, Examples of series and parallel resonance, A.C. Bridge - Owen's Bridge Q-factor (definition only).
- 2. Network theorems (04 Hours)**
Review of network terminology (Circuit element, Active element, Passive element, Branch, Node or junction, Loop, Mesh, Voltage source, Current source, Ohms law, Resistances in series, Resistances in parallel), Thevenin theorem, Norton theorem, Equivalence between Thevenin theorem and Norton theorem, solved problems.
- 3. Ballistic Galvanometer: (04 Hours)**
Construction and working of B. G., expression for charge flowing through ballistic galvanometer, Correction for damping in galvanometer, Constants of ballistic galvanometer.

UNIT II

- 1. Magnetism (08 Hours)**
Introduction to magnetization and intensity of Magnetization, Biot-Savart's law & its applications- straight conductor, circular coil, solenoid carrying current, Divergence and curl of magnetic field, Magnetic vector potential, Ampere's circuital law.
- 2. Magnetic materials and their Properties (07 Hours)**
Magnetic intensity, magnetic induction, permeability, magnetic susceptibility. Hysteresis and hysteresis curve, diamagnetic, paramagnetic, ferromagnetic, ferrimagnetic and anti-ferromagnetic materials.

Reference Books

1. Electricity and Magnetism, Edward M. Purcell, 1986, McGraw-Hill Education.
2. Electricity and Magnetism, J.H. Fewkes & J. Yarwood. Vol.I, 1991, Oxford University Press.
3. Electricity and Magnetism, D C Tayal, 1988, Himalaya Publishing House.
4. University Physics, Ronald Lane Reese, 2003, Thomson Brooks/Cole.
5. Electricity and Magnetism, Khare and Shrivastav. Atma Ram & Sons, Delhi, 1976
6. University Physics 9th Edition, Young and Freedman.
7. Foundations of Electromagnetic Theory, Ritz and Milford. Pearson Publication
8. Electricity and Magnetism, Gupta, Kumar and Singal
9. Basic Electronics and Linear Circuits, N.N. Bhargava, D.C. Kulshrestha and S.S. Gupta, Tata McGraw-Hill
10. Electronic Fundamentals and Applications, J.D. Ryder, Prentice-Hall of India Pvt. Ltd
11. Network theory and Filter Design, V.K. Aatre, New Age International Publisher
12. Principles of Electronics, V.K. Mehata, S. Chand Publication, New Delhi

B. Sc. Part – I
PHYSICS PRACTICAL

Marks 50 (Credits: 02)
DSC A- LAB: MECHANICS

1. Measurements of length (or diameter) using Vernier caliper, screw gauge and travelling microscope.
2. To determine the Moment of Inertia of a Flywheel.
3. To determine the Moment of inertia of a disc using auxiliary annular ring.
4. To determine modulus of rigidity of material of wire by torsional oscillations.
5. To determine Young's modulus of material of Bar by vibration.
6. To determine Y/η of Wire by Searle's method.
7. To determine 'g' by Bar Pendulum.
8. To determine Poisson ratio of rubber (rubber tube).
9. To study exponential decay of amplitude of simple pendulum.
10. To determine surface tension of water by Jaeger's method

DSC B- LAB ELECTRICITY AND MAGNETISM

1. To use digital multimeter for measurement of (a) Resistances, (b) AC and DC Voltages, (c) DC Current and (d) checking electrical fuses.
2. To level the prism table using spirit level and optical method and hence determine angle of prism using spectrometer.
3. To determine constants of B. G. (Figure of merit, Current sensitivity, Voltage sensitivity and charge sensitivity)
4. To compare capacitances using De'Sauty's bridge (B.G/Spot Galvanometer).
5. To determine low resistance by Carey Foster's Bridge.
6. To determine impedance of series LCR circuit.
7. To study the series LCR circuit and determine its resonant frequency and quality factor.
8. To study a parallel LCR circuit and determine its anti-resonant frequency and quality factor.
9. To determine frequency of A. C. mains by sonometer for magnetic or non-magnetic material of wire.
10. To verify Thevenin / Norton theorem.

Reference Books:

1. Advanced Practical Physics for students, B.L.Flint & H.T.Worsnop, 1971, Asia Publishing House.
2. A Text Book of Practical Physics, InduPrakash and Ramakrishna, 11th Edition, 2011, KitabMahal, New Delhi.
3. Advanced level Physics Practicals, Michael Nelson and Jon M. Ogborn, 4th Edition, reprinted 1985, Heinemann Educational Publishers
4. College Practical Physics – Khanna and Gulati (S. Chand and Co. Ltd, Delhi).
5. Practical Physics – Gupta and Kumar (PragatiPrakationMeerat)
6. Advanced Level Practical Physics – J.M. Nelcon, J.M. Ogloom (EIBS).
7. Engineering Practical Physics- S. Panigrahi & B.Mallick, 2015, Cengage Learning India Pvt. Ltd.

TITLES FOR REVISED THEORY COURSES

Semester	Physics Part	Course Code	Course title old and New
I	I	DSC A1	MECHANICS-I
	II	DSC A2	MECHANICS-II
II	III	DSC B1	ELECTRICITY AND MAGNETISM – I
	IV	DSC B2	ELECTRICITY AND MAGNETISM – II

• **Scheme of Practical Examination for B. Sc. Part –I**

1. Practical examination will be conducted annually.
2. Practical examination will be conducted for one day per batch.
3. The examination will be conducted in two sessions per day and each session will be of three hours duration.
4. Every candidate should perform one experiment each from Lab A and Lab B .
5. At least eighty percent practical should be completed by the student.
6. The marks distribution for practical is as below.

Practical groups	Marks
Group I	20
Group II	20
I)Certified laboratory journal	10
Total Marks	50

Nature of Question Paper

Theory: Time -2 hours, Marks-50 Credits-2

Question 1: Select the correct alternative (Compulsory 10 questions) 10 marks

(Four alternatives for each question)

Question 2: (Attempt any Two out of three) 20 marks

(Long answer type)

Question 3: (Attempt any four out of six) 20 marks

(Short answer type)

Note: Equal weightage should be given to each unit.

Shivaji University, Kolhapur
B.Sc. Part-I Physics Syllabus (NEP-2020) with effect from August, 2022

COURSE OUTCOME

Semester-I		
Course Code	Part	Course Outcome
DSC A1	Mechanics-I	<ul style="list-style-type: none"> ▪ Students are able to <i>understand and identify</i> scalar and vector physical quantities in mechanics ▪ Students are able to <i>understand and apply</i> vector algebraic methods to elementary exercises in mechanics ▪ Students are able to <i>understand and identify</i> degree and order of given differential equations ▪ Students are <i>able to solve</i> second order, homogenous ordinary differential equations in mechanics ▪ Students are able to <i>understand the conceptual evolution</i> of conservation laws of momentum and energy for both single and system of particles ▪ Students are able to <i>understand and apply</i> basic concepts of rotational motion ▪ In general, students are capable of <i>correlating</i> above concepts and methods in mechanics to <i>both theoretical and experimental domains revealing analytical as well as numerical skills</i>
DSC A2	Mechanics-II	<ul style="list-style-type: none"> ▪ Students are able to <i>understand and apply</i> Newtons Law of Gravitation to celestial objects ▪ Students are able to <i>understand geometry of planetary orbits under the action of central force</i> ▪ Students are able to <i>solve</i> numerical problems based on Kepler's Laws of planetary motion ▪ Students are able to <i>understand simple concepts like weightlessness, Geosynchronous satellite and GPS</i> ▪ Students are <i>able to setup</i> differential equation for simple harmonic motion and its allied cases ▪ Students are <i>able to</i> calculate time averages of KE, PE and TE ▪ Students <i>are able to revise</i> basic concepts such as stress, strain and elastic constants of elasticity ▪ Students are <i>able to derive</i> elastic constants for beam supported at both ends and at one end ▪ Students are <i>able to derive</i> elastic constant (η) of a wire under torsional oscillations (Searle's Method) ▪ Students are <i>able to explain</i> the phenomenon of surface tension on the basis of molecular forces ▪ Students are <i>able to derive</i> the relation between surface tension and excess pressure ▪ Students are <i>able to perform</i> an experiment to

		<p>determine ST by Jaeger's method</p> <ul style="list-style-type: none"> Students are able to discuss and state the factors affecting the ST In general, students are capable of correlating above concepts and methods to both theoretical and experimental domains revealing analytical as well as numerical skills
Semester-II		
Course Code	Part	Course Outcome
DSC B1	Electricity and Magnetism-I	<ul style="list-style-type: none"> Students are able to understand the physical significance of gradient, divergence and curl Students are able to apply concepts in vector calculus such as gradient, divergence and curl related to vector and scalar fields using Gauss, Stokes and green's theorem Students are able to understand and apply concepts of electrostatic field, potential to point charges, electric dipole and geometrically regular charged bodies Students are able to understand and apply concept of capacitor to isolated conductor, parallel plates, cylindrical and spherical capacitors and allied modifications in it Students are able to understand and apply concept of energy density in electric field Students are capable of applying above concepts to solve numerical exercise in electrostatics
DSC B2	Electricity and Magnetism-II	<ul style="list-style-type: none"> Students are able to understand importance of complex numbers in analysis of AC Circuits contacting Inductance(L) Capacitor(C) and Resistance (R) and their various configurations Students are able to define and apply the concepts in AC circuits such as Impedance (Z), reactance (X_C and X_L), Admittance, Susceptance and Quality Factor (Q) Students are able to understand and design AC bridge: Owen's Bridge Students reveal mastery in basic terminology in network analysis for further studies Students are able to state and apply Network theorems to simple circuits Students are able to understand basic working principle of Ballistic galvanometer Students are able to define constants of ballistic galvanometer In general, students are capable of applying above concepts in network analysis to both theoretical and experimental domains Students are able to understand simple elementary

		<p>concepts such as magnetization and intensity of magnetization</p> <ul style="list-style-type: none"> ▪ Students are <i>able</i> to state Biot-Savart's law and are <i>capable</i> to apply it to straight, circular wires and solenoid ▪ Students are able to <i>understand</i> concept of magnetic vector potential along with Ampere's circuital law ▪ Students are able to understand the explain the phenomenon of hysteresis in magnetism ▪ Students are able to <i>discriminate</i> different magnetic materials based on their characteristic properties
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SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

**Revised Syllabus For
Bachelor of Science
Part-II
PHYSICS
CBCS PATTERN**

Syllabus to be implemented from

June, 2019 onwards.

SHIVAJI UNIVERSITY KOLHAPUR
CBCS Syllabus with effect from June, 2019
B. Sc. Part – II Semester-III
PHYSICS Paper-V
DSC-C1 THERMAL PHYSICS AND STATISTICAL MECHANICS – I
Theory: 36 Hours
Marks-50 (Credits: 02)

Unit I: (18 hrs)
Kinetic Theory of Gases and thermometry

Mean free path, derivation of Maxwell's law of distribution of velocities and its experimental verification, Transport Phenomena: transport of momentum (viscosity), transport of thermal energy (conduction), Transport of mass (diffusion), Law of equipartition of energy (qualitative) and its applications to specific heat of monoatomic and diatomic gases. Principle of thermometry, types of thermometers, Scales of temperature (Celsius, Kelvin, Fahrenheit and Rankine) , Mercury thermometer, Thermoelectric thermometer ,Platinum resistance thermometer , Thermister

Reference books:

- 1) Heat and Thermodynamics- Brijlal and N.Subramanyam, S.Chand and company LTD
PP.1-2, PP.3, PP.3-5, PP.27-30, PP.21-23, PP.149-152, PP.171-177, PP.177-179, PP.179-181, PP.182-183, PP.168-171.
- 2) A treatise on Heat- Meghnad Saha and B.N. Srivastava, Indian Press
PP.104-112, PP.123-126, PP.132-136, PP.139-141, PP.141-143, PP.118, PP.120-123.
- 3) Fundamentals of heat - D.S.Mathur, S.Chand and Sons publisher
PP.3-5, PP.3-5, PP.6-10, PP.36-42, (PP.30-35, PP.51
- 4) Text book of heat - J.B. Rajam, S. Chand and company Ltd
PP.3-4, PP.4-13, PP.34-38, PP.28-3
- 5) Heat and Thermodynamics (8th Ed)-M.W. Zemansky and R.Dittman, McGraw Hill.
PP. 10-12, PP. 21-26, PP.258-260, PP.268-271, PP.271-273, PP.273-274, PP.274-275.

Unit II:
Laws of Thermodynamics (18hrs)

Thermodynamic system, thermodynamic variables, equation of state, thermodynamic equilibrium, Zeroth Law of thermodynamics, Internal energy, First law of thermodynamics, conversion of heat into work, specific heats C_p & C_v , Applications of First Law (Isothermal process, Adiabatic process, Isochoric, Isobaric), relation between C_p & C_v , work done during isothermal and adiabatic processes, reversible & irreversible processes, Second law of thermodynamics, Carnot's ideal heat engine, Carnot's cycle (Working, efficiency), Carnot's theorem, Entropy (concept & significance), Entropy changes in reversible & irreversible processes, Third law of thermodynamics, Unattainability of absolute zero.

Reference books:

- 1) Heat and Thermodynamics- Brijlal and N.Subramanyam, S.Chand and company LTD
*PP.215-219 ,PP.216,PP.221,PP.220,PP.227-230 ,PP.244-446 PP.235-237 , PP.225-228,
PP.246-247, PP.248-251,PP.256-257,(PP.248, PP.291-292 ,PP.292-293 ,PP.294-295,PP.293*
- 2) Text book of heat- J.B. Rajam ,S.Chand and company Ltd
PP.477-485.
- 3) Heat and Thermodynamics (8th Ed)-M.W. Zemansky and R.Dittman, McGraw Hill
*PP.28-31 ,PP.72, PP.73-77 ,PP.66-70 ,PP.133-135 ,PP.159-164 ,PP.165-166 ,
PP.179-181 ,PP.187-191,PP.448-451.*
- 4) Heat Thermodynamics and Statistical physics- J.P. Agrawal and Satya Prakash, Pragati Prakashan
*PP.1-5 ,PP.6-8 ,PP.11-12 ,PP.17-19 ,PP.82-83 ,PP.23-25 ,PP.99-101 ,PP.81-82,84-89 , PP.102-104
,PP.121-127 ,PP.123-125 ,PP.129-132.*

- **Reference books details:**

- 1) Heat and Thermodynamics- Brijlal and N.Subramanyam, S.Chand and Company Ltd.
- 2) Text book of heat- J.B. Rajam, S.Chand and company Ltd
- 3) A treatise on Heat- Meghnad Saha and B.N. Srivastava, Indian Press
- 4) Heat and Thermodynamics (8th Ed), M.W. Zemansky and R. Dittman, McGraw Hill
- 5) Heat Thermodynamics and Statistical physics- J.P. Agrawal and Satya Prakash, Pragati Prakashan
- 6) Fundamentals of heat - D.S.Mathur, S.Chand and Sons publisher

SHIVAJI UNIVERSITY KOLHAPUR SHIVAJI UNIVERSITY KOLHAPUR
CBCS Syllabus with effect from June, 2019

B. Sc. Part –II Semester III

PHYSICS Paper VI

DSC-C2: WAVES AND OPTICS - I

Theory: 36 Hours

Marks -50 (Credits: 02)

Unit I

(18 hrs)

1) Superposition of Harmonic Oscillations (7 hrs)

Linearity and superposition principle, Superposition of two collinear harmonic oscillations- for oscillations having equal frequencies (Analytical and geometrical methods) and oscillations having different frequencies (Beats), Superposition of two perpendicular harmonic oscillations- for oscillations having equal frequencies (Graphical and analytical methods) and oscillations having different frequencies (Lissajous figures), Uses of Lissajous figures.

Reference books:

- 1) The Physics of Waves and Oscillations- N. K. Bajaj, Tata McGraw-Hill Pvt. Ltd., New Delhi, Reprint 2010
(Chapter 2, pp. 54)
- 2) Elements of properties of matter-D. S. Mathur, S. Chand & company Pvt. Ltd., New Delhi, Reprint 2016
(Chapter 4, pp. 110)
- 3) Physics for degree students- C. L. Arora and Dr. P. S. Hemne, S Chand & Company Pvt. Ltd., Second revised Edition, reprint 2014, Ram Nagar, New Delhi
(chapter 14, pp. 557-570)
- 4) A textbook of sound – N Subrahmanyam Brijlal, Vikas Publishing House Pvt. Ltd., New Delhi,
(Chapter 1, pp. 17, Chapter 2, pp 29)

2) Coupled Oscillations: (4 hrs)

Frequencies of coupled oscillatory systems, normal modes and normal co-ordinates, energy of coupled oscillations, energy transfer in coupled oscillatory system.

Reference books:

- 1) Oscillations & Waves- Satya Prakash, Pragati Prakashan, Meerut, 3rd Edition
(Chapter 4, pp. 161)
- 2) The Physics of Waves and Oscillations- N. K. Bajaj, Tata McGraw-Hill Pvt. Ltd., New Delhi, Reprint 2010
(Chapter 5, pp. 177)
- 3) Classical Mechanics – Gupta Kumar Sharma, Pragati Prakashan, Meerut, Reprint 2016 (Chapter 8)
- 4) Introduction to Classical Mechanics- Nikhil Ranjan Ray, Vikas Publishing.
(Chapter 12, pp 306-317)
- 5) Introduction to Classical Mechanics by R. G. Takwale & P. S. Puranik, McGraw hill education (India) Pvt, Ltd.
(Chapter 6 pp 179)

3) Waves Motion and Ultrasonic waves (7hrs)

Waves Motion: Transverse waves on a string, travelling and standing waves on a string, Normal modes of a string, Group velocity and Phase velocity, Plane waves, Spherical waves. Ultrasonic waves: Piezo-electric effect, Production of ultrasonic waves by Piezo-electric generator, Detection of ultrasonic waves, Properties ultrasonic waves, Applications of ultrasonic waves.

Reference books:

- 1) Oscillations & waves-Satya Prakash, Pragati Prakashan, Meerut, 3rd Edition
(Chapter 8, pp 315, 319)
- 2) A Text book of sound- Khanna and Bedi, Atma Ram & sons, Delhi
(Chapter 4, pp 62)(Chapter 7, pp 135)(Chapter 3, pp 46)(Chapter 22, pp 442)
- 3) Waves and Oscillations-Subrahmanyam Brijlal, Vikas Publishing House Pvt. Ltd., New Delhi, 2nd Revised Edition
(Chapter 12, pp 296)(Chapter 11, pp 282)
- 4) Waves and Oscillations – Dr. D. N. Tripathy, Kedarnant Ramnant Meerut, Delhi.
(Chapter 14, pp 259)
- 4) Physics for degree students- C. L. Arora and Dr. P. S. Hemne, S Chand & Company Pvt. Ltd., Second revised Edition, reprint 2014, Ram Nagar, New Delhi
(Chapter 13 pp. 511-556, chapter 15 pp. 571-602,)

Unit II

(18 hrs)

1) Sound and Acoustics of buildings: (7 hrs)

Sound: Transducers and their characteristics, Pressure microphone, Moving coil loudspeaker, Intensity and loudness of sound, Decibels, Intensity levels, musical notes, musical scale. Acoustics of buildings: Reverberation and time of reverberation, Absorption coefficient, Sabine's formula for measurement of reverberation time, Acoustic aspects of halls and auditoria.

Reference books:

- 1) A Text book of sound- Khanna and Bedi, Atma Ram & Sons, Delhi
(Chapter 11 Page No. 224)(Chapter 23 Page No. 455)
- 2) Oscillations & waves-Satya Prakash, Pragati Prakashan, Meerut, 3rd Edition
(Chapter 15, Page no. 515)
- 3) Waves and Oscillations-Subrahmanyam Brijlal, Vikas Publishing House Pvt. Ltd., New Delhi, 2nd Revised Edition
(Chapter 7 pp 182)
- 4) Physics for degree students- C. L. Arora and Dr. P. S. Hemne, S Chand & Company Pvt. Ltd., Second revised Edition, reprint 2014, Ram Nagar, New Delhi,
(Chapter 16 pp. 605-619, chapter 18, pp. 632-655)
- 5) Physics for engineering (Vol 1)- P. K. Palanisamy, Scitech Publications (India) Pvt Ltd. (Chapter 2)
- 6) University Physics –Gurbachan S. Chaddha (chapter 3) Narosa Publishing House Pvt. Ltd. Delhi, (pp. 3.1 - 3.18)

2) Viscosity(5hrs)

Rate flow of liquid in a capillary tube - Poiseuille's formula, experimental determination of coefficient of viscosity of a liquid by Poiseuille's apparatus method, variations of viscosity of a liquid with temperature lubrication.

Reference books:

- 1) University Physics – FW Sears, MW Zemansky and HD Young, Addison Wesley
- 2) Elements of properties of matter-D. S. Mathur, S. Chand & Company Pvt. Ltd., New Delhi, Reprint 2016(*Chapter XII, pp 382*)

3) Physics of low pressure(6hrs)

Production and measurement of low pressure, Rotary pump, Diffusion pump, Molecular pump, Knudsen absolute gauge, Pirani gauge, Detection of leakage.

• Reference books:

- 1) Mechanics- D. S. Mathur, S. Chand & company Pvt. Ltd., New Delhi, Reprint 2009 (*Chapter 15, pp 796*)
- 2) Elements of properties of matter-D. S. Mathur, S. Chand & company Pvt. Ltd., New Delhi, Reprint 2016 (*Chapter XV, pp508*)
- 3) Physics for engineering (Vol 1)- P. K. Palanisany, Scitech Publications (India) Pvt.Ltd. (*Chapter 1*)

SHIVAJI UNIVERSITY KOLHAPUR
CBCS Syllabus with effect from June, 2019
B. Sc. Part – II Semester-IV
PHYSICS Paper-VII
DSC-D1 THERMAL PHYSICS AND STATISTICAL MECHANICS – II
Theory: 36 Hours
Marks-50 (Credits: 02)

Unit I: (18 hrs)

1) Thermodynamic Potentials (10 hrs)

Enthalpy, Gibbs, Helmholtz, Internal Energy functions, Maxwell's thermodynamical relations, Joule-Thomson effect, Clausius- Clapeyron equation, Expression for ($C_P - C_V$), C_P/C_V , TdS equations.

Reference books:

- 1) *Heat and Thermodynamics- M.W.Zemasky and R. Dittman (Ch. No. 11)*
- 2) *Physics for degree students B.Sc. second year- Arora, Hemne, S. Chand(Ch. No. 6)*

2) Theory of Radiation (8 hrs)

Blackbody radiation and its importance, Experimental study of black body radiation spectrum, Concept of energy density, Derivation of Planck's law, Deduction of Wien's distribution law, Rayleigh-Jeans Law, Stefan Boltzmann Law and Wien's displacement law from Planck's law.

Reference books:

- 1) *Concepts of Modern Physics- Arthur Beiser(Ch. No. 9)*
- 2) *Physics for degree students B.Sc. second year- Arora, Hemne, S. Chand(Ch. No. 8)*

Unit II: Statistical Mechanics (18 hrs)

1) Classical statistics (10hrs)

Phase space, Microstate and Macrostate, Accessible microstates, priory probability thermodynamic probability, probability distribution, Maxwell-Boltzmann distribution law, evaluation of constants α and β , Entropy and Thermodynamic probability, Distribution of molecular speeds.

Reference books:

- 1) *Concepts of Modern Physics- Arthur Beiser(Ch. No. 9)*
- 2) *Physics for degree students B.Sc. second year- Arora, Hemne, S. Chand(Ch. No. 9, 11)*

2) Quantum statistics (8 hrs)

Bose-Einstein distribution law, photon gas, Fermi-Dirac distribution law, electron gas, comparison of M.B., B.E., and F.D. statistics.

Reference books:

- 1) *Concepts of Modern Physics- Arthur Beiser(Ch. No. 9)*
- 2) *Physics for degree students B.Sc. second year- Arora, Hemne, S. Chand(Ch. No. 12)*

Reference books details:

- 1) Heat and Thermodynamics-M.W.Zemasky and R. Dittman, McGraw Hill.
- 2) Physics for degree students B.Sc. second year- Arora, Hemne, S. Chand.
- 3) Concepts of Modern Physics- Arthur Beiser, McGraw-Hill.
- 4) Thermal Physics, S. Garg, R. Bansal and C. Ghosh, 1993, Tata McGraw-Hill.
- 5) Thermodynamics, Kinetic theory & Statistical thermodynamics,
F.W.Sears&G.L.Salinger. 1988, Narosa.
- 6) University Physics- Ronald Lane Reese, Thomson Brooks/Cole.
- 7) Heat Thermodynamics and Statistical Physics, N. Subramaniam, Brijlal, P. Hemne, 2008,
S. Chand.

SHIVAJI UNIVERSITY KOLHAPUR
CBCS Syllabus with effect from June, 2019

B. Sc. Part II Semester IV

PHYSICS Paper VIII

DSC- D2 - WAVES AND OPTICS-II

Theory: 36 Hours

Marks -50 (Credits: 02)

Unit III

(18 hrs)

1. Cardinal points (7 hrs)

Cardinal points of an optical system (definitions only), graphical construction of image using cardinal points, Newton's formula, relation between f and f' for any optical system, relation between lateral, axial and angular magnifications.

References book: *Text book of optics- Brijlal and Subrahmanyam(Chaper no. 5)*

2. Resolving Power of optical instruments: (5 hrs)

Resolution, Resolving power of optical instruments, Rayleigh's criterion for the limit of resolution, Modified Rayleigh's criterion, comparison between magnification and resolution, resolving power of plane diffraction grating, resolving power of a prism.

Reference Books:

- 1) *Text book of optics- Brijlal and Subrahmanyam(Chaper no. 19)*
- 2) *Waves and Optics- R. K. Verma (Chapter no. 9)*
- 3) *A text book of light- D. N. Vasudeva(Chapter no. 17)*

3. Polarization of light: (6 hrs)

Idea of polarization, polarization by double refraction, Huygens explanation of double refraction through uniaxial crystals, Nicol prism(construction, working), production and detection of circularly and elliptically polarized light, optical rotation - laws of rotation of plane of polarization, polarimeter.

Reference books:

- 1) *Text book of optics- Brijlal and Subrahmanyam (Chapter no. 20)*
- 2) *Fundamentals of Optics- Jenkins and white (Chapter no. 24)*
- 3) *A text book of light- D. N. Vasudeva(Chapter no. 18)*

UNIT-IV

(18 hrs)

1. Interference: (10 hrs)

Principle of Superposition ,Coherence and condition for interference, Division of amplitude and division of wave front, Division of wave front – Lloyds single mirror(determination of wavelength of light of monochromatic source),Division of amplitude- Interference in thin parallel films (reflected light only), Wedge shaped films, Newton's rings and its application for determination of wavelength and refractive index of light.

Reference Books:

- 1) *Fundamentals of Optics- Jenkins and white (Chater no. 12,13 and 14)*
- 2) *Optics- Ajay Ghatak (Chapter no. 11, 12, 13 and 14)*
- 3) *Text book of optics- Brijlal and Subrahmanyam (Chaper no. 14 and 15)*
- 4) *Waves and Optics- R.K. Verma (Chapter no. 4)*

2. Diffraction: (8 hrs)

Fraunhofer diffraction- Elementary theory of plane diffraction grating, Determination of wavelength of light using diffraction grating, Theory of Fresnel's half period zones, Zone plate (construction , working and its properties), Fresnel's diffraction at a straight edge.

• Reference Books:

- 1) *Fundamentals of Optics- Jenkins and white (Chater no. 15,16,17 and 18)*
- 2) *Optics- Ajay Ghatak (Chapter no. 16 and 17)*
- 3) *Text book of optics- Brijlal and Subrahmanyam (Chaper no. 17 and 18)*

Reference Book Details:

1. Text book of optics for B.Sc.Classes- BrijLal and N.Subrahmanyam, S.Chand & Company Ltd. New Delhi, 2006
2. Wave Optics- R. K. Verma, Discovery Publishing House New Delhi, 2006
3. A text book of light- 8th Edition,D. N. Vasudeva, Atma Ram & Sons, Delhi (1976)
4. Fundamentals of Optics- 4th Edition ,Francies A.Jenkins and Harvey E.White, Tata McGraw-Hill Education Private Ltd., New Delhi 2011
5. Optics- 2nd Edition, Ajay Ghatak, Tata Mcgraw-Hill Publishing Company Ltd., New Delhi,
6. Principles of Physics-10th Edition, Halliday and Resnick, Wiley
7. University Physics- 14th Edition, H.D. Young and R. A. Freedman, Pearson

PHYSICS LAB DSC C1-D1: Paper V–VII
THERMAL PHYSICS AND STATISTICAL MECHANICS

1. To determine the value of Stefan's Constant.
2. To determine the coefficient of thermal conductivity of copper by Searle's Apparatus.
3. To determine the Coefficient of Thermal Conductivity of Cu by Angstrom's Method.
4. To determine the coefficient of thermal conductivity of a bad conductor by Lee and Charlton's disc method.
5. To determine the temperature co-efficient of resistance by Platinum resistance thermometer.
6. To study the variation of thermo e.m.f. across two junctions of a thermocouple with temperature.
7. To record and analyze the cooling temperature of hot object as a function of time using a thermocouple.
8. To calibrate Resistance Temperature Device (RTD) using Null Method/Off-Balance Bridge
9. To determine the temperature coefficient of resistance using post office box.
10. To verify Stefan's fourth power law.
11. To determine specific heat of graphite.
12. To determine the ratio of specific heat of air by Kundt's tube.
13. Temperature of flame
14. To determine the coefficient of thermal conductivity of glass in the form of tube.
15. To determine the thermal conductivity of metal bar by Forbes's method.
16. To determine Mechanical Equivalent of Heat, J, by Callender and Barne's constant flow method.

PHYSICS LAB DSC C2-D2: Paper VI and Paper VIII - WAVES AND OPTICS

1. To investigate the motion of coupled oscillators
2. To determine the frequency of an electrically maintained tuning fork by Melde's experiment and to verify $\lambda^2 - T$ Law
3. To study Lissajous figures by using CRO
4. To determine coefficient of viscosity of water by capillary flow method (Poiseuille's method)
5. To determine velocity of sound in air by Kundt's tube and audio oscillator or Phase shift method (CRO and microphone).
6. To determine viscosity of liquid by Searle's viscometer.
7. To determine velocity of sound in air by resonating bottle.
8. To determine frequency of a crystal oscillator.
9. To determine the Resolving Power of a Prism.
10. To determine the Resolving Power of a Plane Diffraction Grating.
11. To determine wavelength of sodium light using diffraction due to straight edge.
12. To determine wavelength of sodium light using Newton's Rings.
13. Determine thickness of thin film using interference in wedge shaped thin film.
14. Goniometer I- To study cardinal points of optical system.
15. Goniometer II- To study the equivalent focal length of optical system.
16. To study angle of specific rotation of sugar using Polarimeter.

Reference Books for practical:

1. Advanced Practical Physics for students, B.L. Flint & H.T. Worsnop, 1971, Asia Publishing House.
2. Advanced level Physics Practical, Michael Nelson and Jon M. Ogborn, 4th Edition, reprinted 1985, Heinemann Educational Publishers
3. A Text Book of Practical Physics, Indu Prakash and Ramakrishna, 11th Edition, 2011, Kitab Mahal, New Delhi.
4. B.Sc. Practical Physics, C.L. Arora, S. Chand & Company Pvt. Ltd., New Delhi

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SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

B.Sc Part- III

Physics

Syllabus to be implemented from

June, 2020 onwards.

SHIVAJI UNIVERSITY, KOLHAPUR
B.Sc. Part-III Physics CBCS Syllabus with effect from June 2020
B.Sc. Part-III Semester-V
PHYSICS Paper-IX
DSE-E1 Mathematical Physics
Theory: 36 Hours (45 Lectures of 48 minutes)
Marks -50 (Credits: 02)

UNIT-I

1. Partial Differential Equation (8 hours)

Introduction to differentialequations, Method of separation of variables for solving second order partial differential equations, Form of two dimensional Laplace differential equation in Cartesian coordinates and its solution, Three dimensional partial differential equation in Cartesian coordinates and its solution, The differential equation of progressive wave and its solution.

2. Frobenious Method and Special Functions (10hours)

Singular points of second order differential equations, Application of singularity to Legendre and Bessel differential equation, Series solution method of solving second order linear differential equation(Frobenious method) and its application to Legendre differential equation.

UNIT-II

1. Some Special Integrals (6 hours)

Gamma function, Properties of Gamma function, Beta function, Properties of Beta function,Relation between Beta and Gamma functions, Error function (Probability Integral).

2. Complex Analysis (12 hours)

Revision of complex numbers and their graphical representation: Geometrical representation, Equal complex numbers, Addition, Subtraction, Multiplication and Division of complex number by geometry. Types of complex numbers, square roots of complex numbers, Logarithmic function of complex variables, Euler's formula, De'Moivre's theorem, Cauchy-Riemann conditions.

Reference Books

1. Advanced calculus, Robert C. Wrede, Murray Spiegel.
2. Differential Equations with Modeling Applications, Dennis G.Zill.
3. Partial Differential Equations, Gupta Malik and Mittal.
4. Differential Equations, Gupta Malik and Mittal.
5. Differential Equations, Ramachandra Rao, H. R. Anuradha.
6. Partial Differential Equations, N. P. Bali.
7. Differential Equations, N. Ch. S. N. Iyenger.
8. Mathematical Physics, B. S. Rajput.
9. Mathematical Methods for Physicists, Arfken, Weber, 2005, Elsevier.
10. Mathematical Methods for Scientists and Engineers, McQuarrie, 2003, Viva Books.
11. Mathematical Physics, H. K. Das, Rama Varma.
12. Essential Mathematical methods, K. F. Riley, M. P. Hobson, 2011, Cambridge.
13. Mathematics for Physicists, Susan M. Lea, 2004, Thomson Books/Cole.

B.Sc. Part-III Semester-V
PHYSICS Paper-X
DSE-E2 Quantum Mechanics
Theory: 36 Hours (45 Lectures of 48 minutes)
Marks -50 (Credits: 02)

Unit-I

1. Matter Waves (08 hours)

Wave particle duality, De-Broglie hypothesis of matter waves, Derivation of wavelength of matter wave, Concept of wave packet, Relation between group velocity - phase velocity and group velocity-particle velocity, Davisson and Germer experiment, Uncertainty principle (statements only): position-momentum and energy- time, Application of uncertainty principle- non existence of free electrons in the nucleus.

2. Schrodinger's Wave Equation (10 hours)

Wave function and its physical interpretation, Condition of physically acceptable wave function, Normalized and orthogonal wave function, Schrödinger time dependent and time independent (steady state) wave equations in 1D and 3D, Probability current density(continuity equation), Eigen values and Eigen functions, Expectation values of dynamic variables.

Unit-II

1. Operators in Quantum Mechanics (08 hours)

Definition of an operator, Position operator (x), Linear momentum operator (p), Commutation relation in quantum mechanics, Commutation relation between x and p , Kinetic energy operator (T), Hamiltonian operator (H), Parity operator (π), Angular momentum operator (L) – components of angular momentum operator in Cartesian coordinate system, Ladder operators, Eigen values of L_z and L^2 (use equations for L^2 and L_z in spherical polar coordinates).

2. Applications of Schrodinger Equation (10 hours)

Particle in a rigid box (infinite potential well) in one dimension and three dimension, Step potential- reflection and transmission coefficients, Potential barrier- tunneling effect (qualitative treatment), One dimensional simple harmonic oscillator (operator method)- energy levels, zero point energy, Schrodinger equation for Hydrogen atom in spherical polar coordinates, Separation of radial and angular parts, Solution of radial part of Schrodinger's equation - Energy Eigen values.

Reference Books

1. Modern Physics, R. Murugesan, 1997, S. Chand and Company Ltd.
2. Atomic Physics, J B Rajam, S Chand and Co.
3. Perspectives of Modern Physics, Arthur Beiser, McGraw Hill International Editions.
4. Concepts of Modern Physics, Arthur Beiser, Ahobhit Mahajan, S. Rai Choudhury, Sixth Edition, Tata McGraw Hill Education Private Ltd.
5. Modern Physics, S. L. Kakani and Shubhra Kulkarni, 2006, Viva books Private Ltd.
6. Modern Physics, D. L. Sehgal, K. L. Chopra and N. K. Sehgal, Reprint 1995, Sultan Chand & sons.
7. Introduction to Modern Physics, F. K. Richtmyer, E. H. Kennard, John N. Cooper, Sixth Edition, Tata McGraw Hill Education Private Ltd
8. A Text book of Quantum Mechanics, P.M. Mathews & K. Venkatesan, 2nd Edn.,2010, Tata McGraw Hill,
9. Quantum Mechanics, Leonard I. Schiff, 3rdEdn. 2010, Tata McGraw Hill.
10. Quantum Mechanics Theory and Applications, A. K. Ghatak and S. Lokanathan, Third Edn.1995, Macmillan India Ltd.
11. Quantum Mechanics Theory and applications, AjoyGhatak, S. Lokanathan, 5th Ed,2017, Trinity.
12. Quantum Mechanics, Chatwal and Anand, Reprint 2010, Himalaya Publishing house.
13. Quantum Mechanics, Gupta, Kumar, Sharma, Thirtieth Edn., 2011, Jai Prakash Nath Publications.
14. Advanced Quantum Mechanics, SatyaPrakash, Reprint 2011, KedarNath Ram Nath Meerut.
15. Advanced Quantum Mechanics, B. S. Rajput, Ninth Edn., 2009, Pragati Prakashan.
16. Quantum Mechanics, B. N. Srivastava, Reprint 2011, Pragati Prakashan.
17. Quantum Mechanics, P. J. E. Peebles, 2003, Prentice Hall of India.
18. Quantum Mechanics, S. P. Singh,M. K. Bagade, Kamal Singh, S. Chand & company Ltd, New Delhi

B.Sc. Part-III Semester-V

PHYSICS Paper-XI

DSE-E3 Classical Mechanics and Classical Electrodynamics

Theory: 36 Hours (45 Lectures of 48 minutes)

Marks -50 (Credits: 02)

UNIT-I

1.Lagrangian Formulation (10 hour)

Constraints, Degrees of freedom, Generalized coordinates, Principle of virtual work, D'Alembert's principle, Lagrange's equation from D'Alembert's principle, Applications of Lagrange's equation to a particle in space, Atwood's machine and a bead sliding on uniformly rotating wire under force free condition.

2.Techniques of Calculus of Variation (8 hour)

Hamilton's principle, Deduction of Hamilton's principle from D'Alembert's principle, Deduction of Lagrange's equation from Hamilton's principle, Applications-shortest distance between two points in a plane, Brachistochrone problem.

UNIT- II

1.Special Theory of Relativity (12 hours)

Inertial and non-inertial reference frames, Galilean transformation equations, Michelson-Morley experiment, postulates of special theory of relativity, Lorentz transformation equations, Relativistic addition of velocities, Length contraction, Time dilation, Variation of mass with velocity, Mass-energy relation.

2. Charged Particles Dynamics (6 hours)

Poisson's and Laplace's equations and their physical significance, Laplace's equation in one dimension and its solutions, Motion of charged particle - in uniform electric field E , magnetic field B , Crossed uniform electric field E and magnetic field B .

Reference Books

1. Classical Mechanics, Goldstein Herbert, NarosaPubli./ Pearson Edu. 2018
2. Classical Mechanics, Gupta, Kumar and Sharma, Pragati Praka.2012
3. Introduction to Classical Mechanics, Nikhil Ranjan Roy, S Chand Publ. 2016
4. Introduction to Classical Mechanics, Takwale R.G., Puranik P. S., Tata McGraw 1979
5. Classical Mechanics, Panat P.V., NarosaPubli. 2016
6. Atomic physics, J B Rajam S Chand
7. Concepts of Modern Physics, Arthur Beiser, McGraw Hill
8. Introduction to Special Relativity, Robert Resnick, Wiley India
9. Classical Electrodynamics, Puri S.P., Tata McGraw/Alpha Science 2011
10. Classical Electrodynamics, Jackson J. D., Wiley India , 2007
11. Electromagnetics, Laud B.B., New Age Interna. 2011

B.Sc. Part III-Semester-V

PHYSICS Paper-XII

DSE-E4 Digital and Analog Circuits and Instrumentation

Theory: 36 Hours (45 Lectures of 48 minutes)

Marks -50 (Credits: 02)

Unit-I

1.Digital Electronics (08 hours)

Review of basic logic gates, Derived logic gates (NOR, NAND, XOR and XNOR gates), NAND and NOR gates as universal gates, De Morgan's theorems, R-S flip flop, J-K flip-flop, Half adder, Full adder, 4 bit parallel binary adder.

2.TransistorsAmplifier and Sinusoidal Oscillators (10 hours)

Transistor Amplifier: Single stage transistor CE amplifier, D.C. and A.C. equivalent circuits, load line analysis-d.c. load line, a.c. load line and Q point.

Oscillator:Feedback in amplifiers and its types,theory of feedback oscillator, Barkhausen's criterion for sustained oscillations,Oscillatory circuit (tank circuit),essentials of transistor oscillator, sinusoidal oscillators-phase shift oscillator, Colpitts oscillator, Hartley oscillator, Crystal oscillator using transistors.

Unit-II

1. Cathode Ray Oscilloscope (8 hours)

Introduction to CRO, Block diagram of CRO, Principle, Construction and working of CRT, Applications of CRO: measurement of A.C. and D. C. voltages, periodic time, frequency and phase difference, Lissajous figures.

2. Operational Amplifier and Timer (10 hours)

Operational Amplifier: Differential amplifier and its type, Op-Amp, Block diagram of an Op- Amp. Op-Ampparameters, Characteristics of an ideal and practical Op-Amp (IC 741), Applications of Op-Amps: Inverting amplifier and Non-inverting amplifier, Adder, Subtractor, Differentiator, Integrator.

Timer IC:Block diagram of IC555, IC 555 Pin configuration, Applications of IC 555 as astable and monostablemultivibrator.

ReferenceBooks

1. Integrated Electronics, J. Millman and C.C. Halkias, 1991, Tata Mc-Graw Hill.
2. Electronic devices and circuits, S. Salivahanan and N. Suresh Kumar, 2012, Tata Mc-Graw Hill.
3. Microelectronic Circuits, M.H. Rashid, 2ndEdn.,2011, Cengage Learning.
4. Modern Electronic Instrumentation & Measurement Tech., Helfrick&Cooper,1990, PHI Learning
5. Digital Principles & Applications, A.P. Malvino, D.P. Leach &Saha, 7thEd.,2011, Tata McGraw Hill
6. Microelectronic circuits, A.S. Sedra, K.C. Smith, A.N. Chandorkar, 2014, 6thEdn., Oxford University Press.
7. Fundamentals of Digital Circuits, A. Anand Kumar, 2ndEdition, 2009, PHI Learning Pvt. Ltd.
8. OP-AMP and Linear Digital Circuits, R.A. Gayakwad, 2000, PHI Learning Pvt. Ltd.
9. Basic Electronics: A text lab manual, P.B. Zbar, A.P. Malvino, M.A. Miller, 1994, Mc-Graw Hill.
10. Electronics: Fundamentals and Applications, J.D. Ryder, 2004, Prentice Hall.
11. Electronic Principle, Albert Malvino, 2008, Tata Mc-Graw Hill.
12. A text book of Electronics, SantanuChattopadhyay, New Central Book Agency, Kolkata
13. Basic Electronics, 2ndEdition , B. Basavaraj, H. N. Shivashankar, Vikas Publishing house pvt. Ltd. New Delhi.
14. Electronic principles, V. K. Mehta
15. Basic Electronics, Bhargava and Gupta

B.Sc. Part-III Semester-VI
PHYSICS Paper-XIII
DSE-F1 Nuclear and Particle Physics
Theory: 36 Hours (45 Lectures of 48 minutes)
Marks -50 (Credits: 02)

Unit-I

1. General Properties of Nuclei and Nuclear Model (10 hours)

Constituents of nucleus and their intrinsic properties, Quantitative facts about size, mass, chargedensity (matter energy), binding energy, average binding energy and its variation with mass number, Liquid drop model approach, Semi empirical mass formula, Magic numbers.

2. Particle Accelerators (8 hours)

Need of accelerators, Cyclotron- construction, working, theory and its limitations, Principle of phase stable orbit, Synchrocyclotron - construction and working, Synchrotrons- electron synchrotron and proton synchrotron, Betatron - principle, construction and working condition, expression of energy gain.

Unit-II

1. Nuclear Detectors (10 hours)

Ionization chamber, Geiger Muller counter- construction, working and theory, dead time and recovery time, quenching mechanism, Construction of photo-multiplier tube (PMT), Scintillation detector-principle, construction and working, Wilson cloud chamber, Semiconductor detector, Cerenkov radiations, Cerenkov detector.

2. Particle Physics (8 hours)

Particle interactions, Classification of elementary particles, Symmetries and conservation laws- energy, momentum, angular momentum and parity, Baryon number, Lepton number, Concept of quark model.

ReferenceBooks

1. Introductory nuclear Physics, Kenneth S. Krane (Wiley India Pvt. Ltd., 2008).
2. Concepts of nuclear physics, Bernard L. Cohen. (Tata McGraw Hill, 1998).
3. Introduction to the physics of nuclei & particles, R.A. Dunlap. (Thomson Asia, 2004)
4. Introduction to Elementary Particles, D. Griffith, John Wiley & Sons
5. Quarks and Leptons, F. Halzen and A.D. Martin, Wiley India, New Delhi
6. Basic ideas and concepts in Nuclear Physics - An Introductory Approach by K. Heyde (IOP-Institute of Physics Publishing, 2004).
7. Radiation detection and measurement, G.F. Knoll (John Wiley & Sons, 2000).
8. Theoretical Nuclear Physics, J.M. Blatt & V.F. Weisskopf (Dover Pub. Inc., 1991)
9. Nuclear Physics by John Lilley, The Manchester Physics Series – Wiley
10. Nuclear Physics by S. B. Patel, New age international (p) lit. Publishers New Delhi.
11. Modern Physics by R. Murugesan, S. Chand & company Ltd, Ram Nagar New Delhi
12. Nuclear Physics by D. C. Tayal, Himalaya Publishing house
13. Concept of modern physics by Arthur Beiser, Tata McGraw- Hill publishing company ltd. New Delhi
14. Atomic and nuclear structure by D. K. JHA, Discovery publishing house New Delhi
15. Nuclear energy by D. K. JHA Discovery publishing house New Delhi
16. Nuclear physics by S. N. Ghoshal, S. Chand & company Ltd, Ram Nagar New Delhi

B.Sc. Part-III Semester-VI
PHYSICS Paper-XIV
DSE-F2 Solid State Physics
Theory: 36 Hours (45 lectures of 48 min)
Marks-50 (Credits: 02)

Unit-I

1. Crystal Structure (10 hours)

Solids: amorphous, polycrystalline and crystalline materials; lattice, basis, unit cell- primitive, non-primitive unit cell, symmetry operations, symmetry elements of cube, Bravais lattice in two and three dimensions, Miller indices, Miller indices and inter-planer spacing, Simple crystal structures: SC, BCC, FCC and HCP (Co-ordination number, atomic radius, atoms per unit cell and packing fraction)

2. X-Ray Diffraction (08 hours)

Reciprocal lattice and its properties, Brillouin zone, Diffraction of X-rays by crystals, Ewald construction, Bragg's law in reciprocal lattice, Experimental methods in X-ray diffraction (Laue method, rotating crystal method, powder photograph method), Analysis of cubic crystal by powder method.

Unit-II

1. Magnetic Properties of Matter (10 hours)

Classical Langevin theory of diamagnetic and paramagnetic materials, Quantum mechanical treatment of paramagnetism, Curie's law, Weiss theory of ferromagnetism and ferromagnetic domains, Explanation of B-H curve, Hysteresis and energy loss.

2. Elementary Band Theory of Solids (8 hours)

Concept of density of states, Bloch theorem (statement only), Kroning-Penny model, Origin of energy gap, Velocity of electrons according to band theory, Effective mass of an electron, Distinction between metals, semiconductors and insulators, Hall Effect - Hall voltage and Hall Coefficient.

Reference Books

1. Introduction to Solid State Physics, Charles Kittel, 8th Ed., 2004, Wiley India Pvt. Ltd.
2. Elements of Solid State Physics, J.P. Srivastava, 2nd Ed., 2006, Prentice-Hall of India
3. Introduction to Solid, Leonid V. Azarov, 2004, Tata Mc-Graw Hill
4. Solid State Physics, Neil W. Ashcroft and N. David Mermin, 1976, Cengage Learning
5. Solid State Physics, Rita John, 2014, Mc-Graw Hill
6. Solid State Physics, Adrianus J. Dekker, Macmillan Publishers India Ltd.
7. Solid State Physics, M.A. Wahab, 3rd Ed., 2018, Narosa Publishing House Pvt. Ltd.
8. Solid State Physics, S.O. Pillai, 5th Ed., New Age International (P) Ltd., Publishers.
9. Fundamentals of Solid State Physics, Saxena-Gupta-Saxena, (Pragati Prakashan Meerut)
10. Solid State Physics, R. L. Singhal
11. Solid State Physics, C.M. Kachhava (Tata McGraw Hill Publication)
12. Elements of X-ray diffraction, B.D. Cullity and S. Stock
13. Solid state electronic devices, B.G. Streetman & S.K. Banerjee, 5th Ed. [PHI Learning Delhi.

B.Sc. Part-III Semester-VI

PHYSICS Paper-XV

DSE-F3 Atomic and Molecular Physics and Astrophysics

Theory: 36 Hours (45 Lectures of 48 minutes)

Marks -50 (Credits: 02)

UNIT-I

1. Atomic Spectra

(09 hours)

Observed hydrogen fine structure, Spectral notations and optical spectral series for doublet structure, Spectrum of sodium and its doublet fine structure, Selection and intensity rules for fine structure doublets, Normal order of fine structure doublets, Electron spin-orbit interaction, Normal and anomalous Zeeman effect and their explanation from vector atom model, Lande's g factor.

2. Molecular Spectra

(09 hours)

Molecular bond, Electron sharing, H_2^+ molecular ion, The hydrogen molecule, Rotational energy levels, Rotational spectra, Vibrational energy levels, Vibrational spectra, Vibration – rotation spectra, Electronic spectra of diatomic molecules.

UNIT-II

1 Raman Spectra

(4 hours)

Raman Effect, Characteristic properties of Raman lines, Classical and quantum theory of Raman Effect, Difference between Raman spectra and infrared spectra.

2. Structure of Universe:

(08 hours)

Big-Bang theory, Steady state theory, Oscillating theory, Hubble law, Cosmological tests, Milky Way galaxy, Origin of solar system - Condensation theory; arguments for and against the theory.

3. Stellar Evolution

(06 hours)

The H–R Diagram, Evolution of main sequence stars - Red giants and White dwarfs, Evolution of more massive stars- Supernova, Neutron star, Black hole, Surface of the Sun, Sunspots, Sunspot cycle.

Reference books

1. Atomic and Nuclear Physics – H. Semat and T. E. Albright.
2. Introduction to Atomic Spectra – H. E. White.
3. Concepts of Modern Physics – Arthur Beiser.
4. Perspectives of Modern Physics – Arthur Beiser.
5. Spectroscopy (Atomic and Molecular) – Gurdeep Chatwal, Sham Anand.
6. Astronomy – Fundamentals and Frontiers – Robert Jastrow and M. H. Thompson
7. Astronomy – Frank Bash.
8. Foundation of Astronomy, Michael A. Seeds, 10th edition, Thomson Learning, Inc., USA, 2008.

B.Sc. Part-III Semester-VI
PHYSICS Paper-XVI
DSE-F4 Energy Studies and Materials Science
Theory: 36 Hours (45 lectures)
Marks 50 (Credits: 02)

UNIT-I

1. Energy and Wind Energy (8 hrs)

Energy, Forms of energy, Man and environment, Energy chains, Classification of energy resources, Energy demands, Age of renewable and alternatives, Wind energy, Wind energy chains, Wind energy quantum, Planning of wind farm, Wind power density, Efficiency factor of wind turbine (P-H graph), Power of wind turbine for a given incoming wind velocity, Types of a wind turbine generator unit, Horizontal axis propeller type wind turbine generator unit.

2. Solar Energy (8 hrs)

Solar energy, Solar energy spectrum (UV, Visible and IR), Utilization of solar energy-thermal route, photovoltaic route, Essential subsystems in solar energy plant, Solar constant, Clarity index, Solar insolation, Solar energy from satellite station through microwave to earth station, Solar photovoltaic systems, Merits and limitations of solar PV systems, Prospects of solar PV systems, Power of a solar cell and solar PV panel.

3. Biomass Energy (2 hrs)

Origin of biomass, Biomass energy resources (biomass from cultivated crops, biomass from waste organic matter), Biomass conversion process (biochemical conversion-anaerobic digestion and fermentation)

UNIT-II

1. Superconductivity (6 hrs)

Idea of superconductivity, Critical temperature, Critical magnetic field, Meissner effect, Type-I and Type-II superconductors, London equation and penetration depth, Isotope effect, Application (magnetic levitation)

2. Nanotechnology (12 hrs)

Introduction to nanoscience and nanotechnology, Length scales relevant to nanoscience, Nanostructures: 1D, 2D and 3D nanostructures, Size effects in nanosystems, Quantum

confinement, Synthesis of nanostructured materials(Top down and bottom up approach), Photolithography, Ball milling,Nucleation and growth, Applications of nanotechnology (Spintronics, Molecular electronics, Nanobiotechnology)

ReferenceBooks

1. Energy Technology – Non-conventional, Renewable and Conventional – S. Rao and Dr. Parulekar.
2. Non-conventional Energy sources - G. D. Rai (4th edition), Khanna Publishers, Delhi.
3. Solar Energy - S.P. Sukhatme (second edition), Tata Mc.Graw Hill Ltd, New Delhi.
4. Solar Energy Utilization - G. D. Rai (5th edition), Khanna Publishers, Delhi.
5. Non-conventional Energy Sources – G. D. Rai (Khanna Publishers).
6. Elements of Material Science and Engineering - I.H.Vanvlach (4th Edition)
7. Material Science and Engineering - V. Raghva
8. Material science and metallurgy for Engg.-Kodigire V. D. Everest publication house, Pune
9. Material Science and Engg. - 5th Edition- V. Raghavan PHI Learning Pvt. Ltd. Delhi
- 10.Nanotechnology: Principles and Practices,Sulbha K Kulkarni (2ndEdition), Capital Publishing Co. New Delhi.
- 11.Science at the Nanoscale: An Introductory Textbook, Chin Wee Shong, Chornghaur Sow, Andrew T. S. Wee (Pan Stanford Publishing Pte. Ltd.)
12. Introduction to Nanoscience, S.M. Lindsay (Oxford University press)

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B.Sc.Part III Physics Laboratory Experiments

Total Marks: 200 Credits: 08

- **Group-I**

1. Resonance pendulum
2. S.T. of soap solution
3. Surface tension of mercury by Fergusson modified method
4. γ and η using Flat Spiral Spring
5. γ by Koenig's method
6. γ by Cornu's spiral
7. C program to arrange the given set of numbers in ascending/descending order
8. C program to find largest/smallest number from a given set of numbers
9. Scilab Expt. 1 (problem from Quantum Mechanics)
10. Scilab Expt. 2 (problem from Quantum Mechanics)

- **Group-II**

1. Cardinal points by turn table method
2. Cardinal points by Newton's method
3. Refractive index of glass by Brewster's law
4. Diffraction at a Single Slit
5. Diffraction at cylindrical obstacle
6. Lloyd's single mirror
7. Double refracting prism
8. Diameter of Lycopodium powder
9. Spherical aberration
10. Absorption spectrum of a liquid (KMnO_4 solution)

- **Group-III**

1. Self Inductance by Owen's Bridge
2. Measurement of B_H , B_V and θ using Earth Inductor /Hysteresis by magnetometer method
3. Mutual inductance using Ballistic galvanometer.
4. Resistance of B.G. by half deflection method
5. e/m of Electron By Thomson's Method/Calibration of wire by Carey Foster bridge
6. Calibration of wire by Griffith's method

7. Absolute capacity of condenser
8. I-V characteristics of Solar Cell
9. Band gap energy of semiconductor using p-n junction diode
10. Determination of Plank's constant by using LED

• **Group-IV**

1. To verify the truth tables of NAND, NOR, Ex-OR and Ex-NOR gates by using basic gates with IC-74 series.
2. To verify the De-Morgan's theorems by using IC-74 series.
3. To design a single stage CE amplifier of given gain using voltage divider bias.
4. To built and test Colpitts oscillator using BJT.
5. To built and test phase shift oscillator using BJT.
6. To determine A.C. and D.C. sensitivity of the C.R.O. and to measure unknown frequency.
7. To design and test an astable multivibrator using IC-555 Timer.
8. To design and test monostable multivibrator using IC-555 Timer.
9. To study Op-amp as an inverting amplifier.
10. To study Op-amp as Schmitt trigger.

Skill Testing Experiments

• **Group-V-A**

1. Study of divergence of LASER beam
2. Measurement of wavelength of LASER using plane diffraction grating
3. Schuster's method and optical leveling of spectrometer
4. Obtaining Biprism fringes without lateral shift
5. Measurement of distance between two coherent sources in Biprism experiment
6. Polar graph using photocell/photovoltaic cell
7. Study of quantum tunneling effect using tunnel diode
8. Testing of electronic components
9. C program – Edit, save and execute given C program
10. C program – Edit, save and execute given C program

- **Group – V-B**

1. Radius of Capillary bore using mercury thread
2. Determination of lattice constant using given XRD powder pattern
3. Estimation of errors
4. Measurement of phase shift of RC network using CRO
5. Study of Half and Full adder
6. Simplification of digital circuit using Boolean laws (paper-work).
7. Measurement of resistance of galvanometer (Kelvin's method)
8. Electrical wiring of bulb, switch and plug.
9. Tracing of given electronic circuit/ build the given circuit using breadboard
10. Assembling of given electronic circuit(soldering method)

- **Group VI: Assessment of Annual Work of a Student**

1. Certified Laboratory Journal.
2. Study Tour Report.
3. Seminar Report (2 Seminars) / Project work.

- **Reference Books for practical**

1. Advanced Practical Physics for students, B.L. Flint & H.T. Worsnop, 1971, Asia Publishing House.
2. Advanced level Physics Practical, Michael Nelson and Jon M. Ogborn, 4th Edition, reprinted 1985, Heinemann Educational Publishers
3. A Text Book of Practical Physics, Indu Prakash and Ramakrishna, 11th Edition, 2011, Kitab Mahal, New Delhi.
4. B.Sc. Practical Physics, C.L.Arora, S.Chand & Company Pvt.Ltd., New Delhi
5. B.Sc. Practical Physics, Harman Singh, Hemane, 2012 Edition.

- **Revised Scheme of Practical Examination for B. Sc. Part – III**

1. Practical examination will be conducted annually.
2. Practical examination will be conducted for three days per batch.
3. The examination will be conducted in two sessions per day and each session will be of three hours duration.

4. Every candidate should perform one experiment each from Groups I to IV and one experiment each from Group V-A and Group V-B (total 6 experiments).
5. Study tour anywhere in India is compulsory.
6. At least eighty percent practical should be completed by the student.
7. The marks distribution for practical is as below.

Practical groups	Marks
Group I	30
Group II	30
Group III	30
Group IV	30
Group VA-15, Group VB-15	30
Group VI	
I) Certified laboratory journal (certified Journal- 10 marks, neatness-5 marks, punctuality- 5 marks)	20
II) Study Tour Report	10
III) Seminar Report / Project Report	20
Total Marks	200

Nature of Question Paper

Theory: Time -2 hours, Marks-50

Question 1: Select the correct alternative (Compulsory 10 questions) 10 marks

(Four alternatives for each question)

Question 2: (Attempt any Two out of three) 20 marks

(Long answer type)

Question 3: (Attempt any four out of six) 20 marks

(Short answer type)

- **Note:** Equal weightage should be given to each unit.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A++' Grade

Choice Based Credit System with Multiple Entry and Multiple Exit Option

(NEP-2020)

CHOICE BASED CREDIT SYSTEM

Syllabus for

B.Sc. Part – I

MATHEMATICS

SEMESTER I AND II

(Syllabus to be implemented from Academic Year 2022-23)

Choice Based Credit System with Multiple Entry and Multiple Exit Options

To be implemented from the Academic Year 2022-23

First Year Bachelor of Science (Level-5) Programme Structure (NEP-2020 PATTERN)

S E M E S T E R – I (Duration – 6 Months)																
Courses	Sr. No.	Course Code	TEACHING SCHEME						EXAMINATION SCHEME							
			THEORY				PRACTICAL			THEORY				PRACTICAL		
			Credits	No. of lectures	Hours		Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min
CGPA COURSES	1	DSC-A	2	5	4		2	4	3.2		2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL	
	2	DSC-A	2								2	50				
	3	DSC-A	2	5	4		2	4	3.2		2	50	100	35		
	4	DSC-A	2								2	50				
	5	DSC-A	2	5	4		2	4	3.2		2	50	100	35		
	6	DSC-A	2								2	50				
	7	DSC-A	2	5	4		2	4	3.2		2	50	100	35		
	8	DSC-A	2								2	50				
	9	AECC- A	2	4	3.2	-	-	-	2	50	50	18				
		TOTAL (A)	18			8	16				450					
Non CGPA	10	SEC-1	-	-	-		2	4	4							
	11	VBC-1					1	2	2							
S E M E S T E R – II (Duration – 6 Months)																
CGPA COURSES	1	DSC-B	2	5	4		2	4	3.2		2	50	100	35	As per BOS Guide-lines	
	2	DSC-B	2								2	50				
	3	DSC-B	2	5	4		2	4	3.2		2	50	100	35		
	4	DSC-B	2								2	50				
	5	DSC-B	2	5	4		2	4	3.2		2	50	100	35		
	6	DSC-B	2								2	50				
	7	DSC-B	2	5	4		2	4	3.2		2	50	100	35		
	8	DSC-B	2								2	50				
	9	AECC- B	2	4	3.2	--	--	--	2	50	50	18				
		TOTAL (B)	18			8					450					
	TOTAL (A+B)	36			16					900						
Non CGPA	10	SEC-2	-	-	-		2	4	4							
	11	VBC-2					1	2	2							
<ul style="list-style-type: none">• Student contact hours per week : 32 Hrs (Minimum)• Theory and Practical Lecture Duration: 48 min each• Practical Examination will be conducted annually for 50 marks per course.• AECC: Ability Enhancement Compulsory Course (A & B) : English for communication• SEC: Skill Enhancement Course (Vocational Studies): Field Projects/ Internship/ Apprenticeship/ Community Engagement and Service. Any one from pool of courses. For SEC courses there shall be only practical examination of 50 marks. VBC: Value Based Course (NSS/NCC/Sports/Cultural, etc.)• Except English, there shall be combined passing for two theory courses of 50 marks each. i.e. minimum 35 marks are required for passing out of 100. There shall be separate passing for theory and practical.• Exit option after Level 5: Students can exit with Certificate Course in Science (with the completion of courses equal to minimum of 52 credits).																
<ul style="list-style-type: none">• Total Marks for B.Sc.- I : 1100• Total Credits for B.Sc.-I (Sem I & II) : 52																

B. Sc. Part – I: Sem. – I: List of Courses

Discipline Specific Core (DSC) Courses

Course code	Name of the Course	Course code	Name of the Course
B. Sc. Part-I: Sem-I DSC : A1 to A38			
DSC A1	Physics I	DSC A21	Geology I
DSC A2	Physics II	DSC A22	Geology II
DSC A3	Chemistry I	DSC A23	Seed Technology I
DSC A4	Chemistry II	DSC A24	Seed Technology II
DSC A5	Mathematics I	DSC A25	Microbiology I
DSC A6	Mathematics II	DSC A26	Microbiology II
DSC A7	Statistics I	DSC A27	Industrial Microbiology I
DSC A8	Statistics II	DSC A28	Industrial Microbiology II
DSC A9	Electronics I	DSC A29	Biochemistry I
DSC A10	Electronics II	DSC A30	Biochemistry II
DSC A11	Computer Science I	DSC A31	Psychology I
DSC A12	Computer Science II	DSC A32	Psychology II
DSC A13	Botany I	DSC A33	Food Science & Quality control-I
DSC A14	Botany II	DSC A34	Food Science & Quality control-II
DSC A15	Zoology I	DSC A35	Astrophysics I
DSC A16	Zoology II	DSC A36	Astrophysics II
DSC A17	Biotechnology (Opt) I	DSC A37	Nanotechnology (opt) I
DSC A18	Biotechnology (Opt) II	DSC A38	Nanotechnology (opt) II
DSC A19	Geography I		
DSC A20	Geography II	AECC – A	English Paper – I

DSC: Discipline Specific Core Course

AECC – Ability Enhancement Compulsory Course

AECC – A – English Paper– I

Link for the pool of SEC courses from National Skills Qualification Framework (NSQF)

(You may add or delete any courses as per available facilities)

https://drive.google.com/file/d/176Vwvx4SC2ONrt69XADruzI2qnfBPI_o/view?usp=sharing

B. Sc. Part – I: Sem. – I: List of Courses

Discipline Specific Core (DSC) Courses

Course code	Name of the Course	Course code	Name of the Course
B. Sc. Part-I: Sem-II DSC : B1 to B38			
DSC B1	Physics III	DSC B21	Geology III
DSC B2	Physics IV	DSC B22	Geology IV
DSC B3	Chemistry III	DSC B23	Seed Technology III
DSC B4	Chemistry IV	DSC B24	Seed Technology IV
DSC B5	Mathematics III	DSC B25	Microbiology III
DSC B6	Mathematics IV	DSC B26	Microbiology IV
DSC B7	Statistics III	DSC B27	Industrial Microbiology III
DSC B8	Statistics IV	DSC B28	Industrial Microbiology IV
DSC B9	Electronics III	DSC B29	Biochemistry III
DSC B10	Electronics IV	DSC B30	Biochemistry IV
DSC B11	Computer Science III	DSC B31	Psychology III
DSC B12	Computer Science IV	DSC B32	Psychology IV
DSC B13	Botany III	DSC B33	Food Science & Quality control II
DSC B14	Botany IV	DSC B34	Food Science & Quality control IV
DSC B15	Zoology III	DSC B35	Astrophysics III
DSC B16	Zoology IV	DSC B36	Astrophysics IV
DSC B17	Biotechnology (Opt) III	DSC B37	Nanotechnology (opt) III
DSC B18	Biotechnology (Opt) IV	DSC B38	Nanotechnology (opt) IV
DSC B19	Geography III		
DSC B20	Geography IV	AECC – B	English Paper – II

B.Sc. Part I (Mathematics), Semester-I & II
Choice Based Credit System with Multiple Entry and Multiple Exit Option
(NEP-2020)

Syllabus to be implemented from Academic Year 2022-23

- 1. TITLE: Mathematics**
- 2. YEAR OF IMPLEMENTATION:** Revised Syllabus will be implemented from June 2022 onwards.
- 3. DURATION:** B.Sc. in Mathematics Part- I. The duration of course shall be one year and two semesters.
- 4. PATTERN:** Pattern of examination will be semester.
- 5. STRUCTURE OF COURSE:**

STRUCTURE OF COURSE

Sr. No.	Paper	Name of Paper	Marks
Mathematics (Semester I)			
1	DSC-A5	Calculus	50 (Theory)
2	DSC-A6	Differential Equations	50 (Theory)
Mathematics (Semester II)			
3	DSC-B5	Multivariable Calculus	50 (Theory)
4	DSC-B6	Basic Algebra	50 (Theory)
Practical (Annual)			
5	CCPM-I	Core Course Practical in Mathematics - I	50 (Practical)

B.Sc. (Mathematics) (Part I) (Semester – I)
Choice Based Credit System with Multiple Entry and Multiple Exit Option (NEP-2020)
Syllabus to be implemented from Academic Year 2022-23

Course code: DSC – A5
Title of course: Calculus
Theory: 32 Hrs. (40 lecturers)
Marks: 50 (Credit: 02)

Course Learning Outcomes: Upon successful completion of the course students will able to:

1. Evaluate the limit and examine the continuity of a function at a point.
2. Understand the consequences of mean value theorems for differentiable functions.
3. Apply Leibnitz theorem to obtain higher derivatives of product of two differentiable functions.

Unit – 1: Limit, Continuity and Differentiability (20 lect.)

- 1.1 Limits: $\varepsilon - \delta$ definition, infinite limit ($f \rightarrow \infty$ as $x \rightarrow c$), limit at infinity ($f \rightarrow l$ as $x \rightarrow \infty$ and $f \rightarrow \infty$ as $x \rightarrow \infty$).
- 1.2 Left hand and Right hand limits: definition and examples.
- 1.3 Properties of limits:

Theorem: If f and g are two functions defined on some neighbourhood of c such that

$$\lim_{x \rightarrow c} f(x) = l, \lim_{x \rightarrow c} g(x) = m \text{ then}$$

$$(i) \lim_{x \rightarrow c} (f + g)(x) = l + m$$

$$(ii) \lim_{x \rightarrow c} (f - g)(x) = l - m$$

$$(iii) \lim_{x \rightarrow c} (f \cdot g)(x) = lm$$

$$(iv) \lim_{x \rightarrow c} (f/g)(x) = l/m \text{ if } m \neq 0 \text{ (without proof)}$$

- 1.4 Evaluation of limit: Examples (using techniques like factorization, rationalization, Left hand and Right hand limits etc.).
- 1.5 Continuous functions: definition of Continuity at a point, definition of continuity in an interval.
- 1.6 Properties of continuous functions:

1.6.1 Theorem: Let f and g be two functions continuous at a point c , then the functions $f + g$, $f - g$, fg are also continuous at c and if $g(c) \neq 0$, then f/g is also continuous at c .

Functions continuous on closed intervals:

1.6.2 Definition of bounded function

1.6.3 Theorem (Statement only): If a function f is continuous in a closed interval, then it is bounded therein.

- 1.6.4 Theorem: If a function f is continuous on a closed interval $[a, b]$, then it attains its bounds at least once in $[a, b]$.
- 1.6.5 Theorem: If a function f is continuous at an interior point c of an interval $[a, b]$ and $f(c) \neq 0$, then \exists a $\delta > 0$ such that $f(x)$ has the same sign as $f(c)$, for every $x \in]c - \delta, c + \delta[$.
- 1.6.6 Corollary (Statement only): If f is continuous at the end point b of $[a, b]$ and $f(b) \neq 0$, then there exists an interval $]b - \delta, b[$ such that $f(x)$ has the sign of $f(b)$ for all x in $]b - \delta, b[$.
- 1.6.7 Corollary (Statement only): If f is continuous at the end point a of $[a, b]$ and $f(a) \neq 0$, then there exists an interval $[a, a + \delta[$ such that $f(x)$ has the sign of $f(a)$ for all x in $[a, a + \delta[$.
- 1.6.8 Theorem: If a function f is continuous on a closed interval $[a, b]$ and $f(a)$ and $f(b)$ are of opposite signs ($f(a) \cdot f(b) < 0$), then there exists at least one point $\alpha \in]a, b[$ such that $f(\alpha) = 0$.
- 1.6.9 Intermediate Value Theorem.
- 1.6.10 Corollary (Statement only): A function f , which is continuous on a closed interval $[a, b]$, assumes every value between its bounds.
- 1.7 Discontinuous functions: Definition, Types of discontinuities – (i) removable discontinuity (ii) discontinuity of first kind (iii) discontinuity of second kind.
- 1.8 Examples on 1.5 and 1.7
- 1.9 Uniform continuity: definition and simple examples
- 1.10 Theorem: A function which is uniformly continuous on an interval is continuous on that interval.
- 1.11 Differentiability at a point and Differentiability in an interval: definitions.
- 1.12 Examples on 1.11
- 1.13 (Differentiability and continuity) Theorem: A function which is derivable at a point is necessarily continuous at that point

Unit – 2: Mean Value Theorems, Successive Differentiation, Expansions of functions

(20 lect.)

- 2.1 Mean Value Theorems
- 2.1.1 Rolle's Mean Value Theorem, Geometrical interpretation.
- 2.1.2 Lagrange's Mean Value Theorem, Geometrical interpretation.
- 2.1.3 Cauchy's Mean Value Theorem.
- 2.1.4 Examples on 2.1.1, 2.1.2, 2.1.3.
- 2.2 Successive Differentiation
- 2.2.1 Higher order derivatives: notations.

2.2.2 Calculation of n^{th} derivative: Standard results

$(ax + b)^m$, $1/(ax + b)$, $\log(ax + b)$, a^{mx} , e^{mx} , $\sin(ax + b)$, $\cos(ax + b)$,
 $e^{ax} \sin(bx + c)$, $e^{ax} \cos(bx + c)$.

2.2.3 Determination of n^{th} derivative: examples.

2.2.4 Leibnitz's Theorem.

2.2.5 Examples on 2.2.4.

2.3 Expansion of functions

2.3.1 Maclaurin's theorem (Statement only), examples using Maclaurin's theorem.

2.3.2 Taylor's theorems (Statement only), examples using Taylor's theorem.

Recommended Books:

1. **Mathematical Analysis**, S. C. Malik and Savita Arora, New Age International Publishers, 4th Edition (2012) – For Unit 1
2. **Differential Calculus**, Shanti Narayan and P.K. Mittal, S. Chand publishing, 15th edition (2016) – For Unit 2.

Reference Books:

1. **Differential Calculus**, Gorakh Prasad, Pothishala Pvt. Ltd., 19th edition (2016).
2. **Aspects of Calculus**, Gabriel Klambauer, Springer-Verlag.(1986)
3. **Calculus with Maple Labs**, Wieslaw Krawcewicz & Bindhyachal Rai, Narosa (2003).
4. **Calculus**, George B. Thomas Jr., Joel Hass, Christopher Heil & Maurice D. Weir Pearson Education, 14th edition (2018).

B.Sc. (Mathematics) (Part I) (Semester – I)
Choice Based Credit System with Multiple Entry and Multiple Exit Option (NEP-2020)
Syllabus to be implemented from Academic Year 2022-23

Course code: DSC – A6
Title of course: Differential Equations
Theory: 32 Hrs. (40 lecturers)
Marks: 50 (Credit: 02)

Course Learning Outcomes: Upon successful completion of the course students will able to:

1. Understand types of differential equations.
2. Solve different types of ordinary differential equations.
3. Understand applications of differential equations.

Unit – 1: Ordinary differential equations of first order and first degree (22 lect.)

Definition, Order and Degree, Exact differential equations, Necessary and sufficient condition for exactness, Differential equations reducible to exact, Integrating factors with rules, Linear differential equations, Differential equations reducible to linear differential equation, Bernoulli's differential equations.

Orthogonal trajectories, orthogonal trajectories to Cartesian and polar curves. Differential equations of first order but not of first degree: Equations that can be factorized, Equations solvable for p, Equations that cannot be factorized, Equations solvable for x, Equations solvable for y and Clairaut's form.

Unit – 2: Linear differential equations with constant coefficients (18 lect.)

Definition, General solution, Auxiliary equation, Complementary function, Types of complementary function: real and distinct roots, real and repeated roots, complex roots, complex and repeated roots, mixed roots, Examples on different types of complementary function, Particular integral, Particular integrals of the functions: e^{ax} , $\sin ax$, $\cos ax$, x^m , $e^{ax} V$, $x.V$ and general method.

Recommended Books:

1. **Ordinary and partial differential equations**, M. D. Raisinghania, S. Chand and Company Pvt. Ltd, New Delhi, 18th Revised Edition (2016).

Reference Books:

1. **Introductory course in differential equations**, D. A. Murray, Khosala Publishing House, Delhi.
2. **An Introduction to Differential Equations**, R. K. Ghosh and K. C. Maity. Book and Allied (P) Ltd., Seventh Edition (2000).
3. **Differential Equations and Their Applications**, Zafar Ahasan, PHI, Second Edition (2004).

B.Sc. (Mathematics) (Part I) (Semester – II)
Choice Based Credit System with Multiple Entry and Multiple Exit Option (NEP-2020)
Syllabus to be implemented from Academic Year 2022-23

Course code: DSC – B5
Title of course: Multivariable Calculus
Theory: 32 Hrs. (40 lecturers)
Marks: 50 (Credit: 02)

Course Learning Outcomes: Upon successful completion of the course students will able to:

1. Learn conceptual variations while advancing from one variable to several variables in calculus.
2. Set up and solve optimization problems involving several variables.
3. Learn the concept of Jacobian of a transformation.

Unit – 1: Partial differentiation (20 lect.)

Functions of two variables: domain, Neighbourhood of a point, Continuity of functions of two variables (at a point), Limit of functions of two variables, Partial derivatives: first order partial derivatives, partial derivatives of higher order, Geometrical interpretation of partial derivatives, examples,

Homogeneous functions: definition, Euler's theorem on homogeneous functions (Case of two and three variables), examples using Euler's theorem. Total Differentials, Differentiation of composite functions, examples, Implicit function: first and second order derivative of implicit functions and its examples. Taylor's theorem for a function of two variables, its examples.

Unit – 2: Extreme values and Jacobian (20 lect.)

Maxima and minima of functions of two variables: Condition for existence of maxima or minima, stationary and extreme points, Sign of quadratic expression, Lagrange's condition for maximum and minimum values of a function of two variables, examples, Lagrange's method of undetermined multipliers, examples using Lagrange's method.

Jacobian: Definition, examples. Jacobian of function of function (for the case of two and three variables and proof of the corollary $J.J' = 1$ is expected), Jacobian of implicit functions, examples using these properties.

Recommended Books:

1. **Differential Calculus**, Shanti Narayan and P.K. Mittal, S. Chand publishing, 15th edition (2016).

Reference Books:

1. **Basic Multivariable Calculus**, J. E. Marsden , A. J Tromba & A. Weinstein; Springer Verlag, New New York, 1993.
2. **Calculus, Early Transcendental**, H. Anton, I. Birens and Davis, John Wiley and Sons, 11th Edition (2015).
3. **Differential Calculus**, Maity and Ghosh, New Central Book Agency (P) limited, Kolkata, India. 2007.
4. **Calculus: Early transcendental**, James Stewart, Brooks/ Cole Cengage Learning, 7th edition (2012).

B.Sc. (Mathematics) (Part I) (Semester – II)
Choice Based Credit System with Multiple Entry and Multiple Exit Option (NEP-2020)
Syllabus to be implemented from Academic Year 2022-23

Course code: DSC – B6
Title of course: Basic Algebra
Theory: 32 Hrs. (40 lecturers)
Marks: 50 (Credit: 02)

Course Learning Outcomes: Upon successful completion of the course students will able to:

1. Use fundamental concepts in Mathematics like sets, relations and functions.
2. Use fundamental concepts in Number theory.
3. Solve examples on congruence.
4. Determine n^{th} roots of unity.
5. Understand various properties of hyperbolic functions.

Unit – 1: Functions, divisibility and congruence **(20 lect.)**

- 1.1 Set, Relations on sets, type of relations, equivalence relations, Equivalence classes and partitions of a set.
- 1.2 Functions: One-one, onto functions and bijections, composition of functions (Definitions and examples).
- 1.3 The induction principle and strong induction principle.
- 1.4 Divisibility and congruence:
 - 1.4.1 The division algorithm: Theorem and its applications.
 - 1.4.2 Definitions of Greatest common divisor least common multiple.
 - 1.4.3 Euclidean Algorithm.
 - 1.4.4 Fundamental Theorem of Arithmetic.
 - 1.4.5 The theory of Congruence: Basic Properties of congruence.

Unit – 2: Complex numbers **(20 lect.)**

- 2.1 Complex numbers (Revision): Sums and Products, Basic Algebraic Properties, Moduli, complex conjugates and polar representation of complex numbers.
- 2.2 Theorem: De Moivre's theorem.
 - 2.2.1 n^{th} roots of unity.
 - 2.2.2 Examples.
- 2.3 Complex logarithm and complex power.
- 2.4 Hyperbolic functions and identities.
- 2.5 Relation between hyperbolic and trigonometric functions.
- 2.6 Identities of hyperbolic functions.

- 2.7 Hyperbolic equations.
- 2.8 Inverses of hyperbolic functions.
- 2.9 Derivative of hyperbolic and inverse hyperbolic functions

Recommended books:

- 1 **A Foundation Course in Mathematics**, Ajit Kumar, S. Kumeresan and Bhaba Kumar Sarma, Narosa Publication House.
Unit 1 (1.1): Chapter 4: 4.1 to 4.4, (1.2): Chapter 3: 3.1 to 3.3, (1.3): Chapter 5: 5.1 to 5.2.
- 2 **Elementary Number Theory**, Seventh edition: David M. Burton, McGraw-Hill.
Unit 1 (1.4): Chapter 2: 2.2 to 2.4, Chapter 3: 3.1, Chapter 4: 4.2.
- 3 **Foundation Mathematics for the Physical Sciences**, Riley and Hobson, Cambridge University press, 2011.
Unit 2 (2.1 to 2.9): Chapter 5: 5.1 to 5.7.

Reference Books:

- 1 **Foundations of Complex Analysis**, S. Ponnusamy, Narosa Publishing House, India, Second Edition Reprint 2019.
- 2 **Introduction to Real Analysis**, R.G. Bartle and D.R. Sherbert, John Wiley and Sons Inc, Fourth Edition.

Core Course Practicals in Mathematics (CCPM - I)

Marks – 50, Credits – 4

Pr. No	Title
1.	Properties of Tracing of Cartesian Curves
2.	Tracing of Cartesian Curves – I
3.	Tracing of Cartesian Curves – II
4.	Properties of Tracing of Polar Curves
5.	Tracing of Polar Curves – I
6.	Tracing of Polar Curves – II
7.	Examples on Leibnitz's theorem
8.	Extreme values of functions of two variables
9.	Lagrange's method of undetermined multipliers
10.	Jacobian
11.	Euclidean Algorithm
12.	Examples on Fermat's theorem
13.	Law of growth
14.	Law of decay
15.	Newton's law of cooling
16.	Electrical circuits
17.	Plotting 2D curves (Use any open source software).
18.	Plotting 3D graphs (Use any open source software).

SHIVAJI UNIVERSITY, KOLHAPUR



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CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Mathematics Part -II

SEMESTER III AND IV

(Syllabus to be implemented from June, 2019 onwards.)

B.Sc. (Mathematics) (Part-II) (Semester–III)
(Choice Based Credit System)
(Introduced from June 2019)

Course Code: DSC – 5C

Title of Course: Real Analysis–I

Theory: 32Hrs. (40 Lectures of 48 minutes)

Marks – 50 (Credits: 02)

Course Objectives: Upon successful completion of this course, the student will be able to:

- (1) understand types of functions and how to identify them.
- (2) use mathematical induction to prove various properties.
- (3) understand the basic ideas of Real Analysis.
- (4) prove order properties of real numbers, completeness property and the Archimedean property.

Unit1: Functions and Countable sets

(16hrs)

1.1. Sets.

- 1.1.1. Revision of basic notions in sets.
- 1.1.2. Operations on sets: -Union, Intersection, Complement, Relative complement, Cartesian product of sets, Relation.

1.2. Functions

- 1.2.1. Definitions: Function, Domain, Co-domain, Range, Graph of a function, Direct image and Inverse image of a subset under a function. Examples of direct image and inverse image of a subset.
- 1.2.2. **Theorem:** If $f: A \rightarrow B$ and if $X \subseteq B, Y \subseteq B$, then
$$f^{-1}(X \cup Y) = f^{-1}(X) \cup f^{-1}(Y)$$
- 1.2.3. **Theorem:** If $f: A \rightarrow B$ and if $X \subseteq B, Y \subseteq B$, then
$$f^{-1}(X \cap Y) = f^{-1}(X) \cap f^{-1}(Y)$$
- 1.2.4. **Theorem:** If $f: A \rightarrow B$ and if $X \subseteq A, Y \subseteq A$, then $f(X \cup Y) = f(X) \cup f(Y)$
- 1.2.5. **Theorem:** If $f: A \rightarrow B$ and if $X \subseteq A, Y \subseteq A$, then $f(X \cap Y) \subseteq f(X) \cap f(Y)$

1.2.6. **Definitions:** Injective, Surjective and Bijective functions (1-1 correspondance)

Inverse function.

1.2.7. **Proposition:** If $f: A \rightarrow B$ is injective and $E \subseteq A$, then $f^{-1}(f(E)) = E$.

1.2.8. **Proposition:** If $f: A \rightarrow B$ is surjective and $H \subseteq B$, then $f(f^{-1}(H)) = H$.

1.2.9. **Definition:** Composite function, Restriction and Extension of a function.

1.2.10. **Theorem:** Let $f: A \rightarrow B$ and $g: B \rightarrow C$ be functions and let H be a subset of C .

Then $(g \circ f)^{-1}(H) = f^{-1}(g^{-1}(H))$.

1.2.11. **Theorem:** Composition of two bijective functions is a bijective function.

1.2.12. **Examples**

1.3. Mathematical Induction

1.3.1. **Principle of Mathematical Induction** (without proof), Well ordering property of natural numbers

1.3.2. **Principle of Mathematical Induction** (second version: Statement only), Principle of strong induction (Statement only).

1.3.3. Examples based on 1.3.1 and 1.3.2

1.4. Countable Sets

1.4.1. **Definitions:** Denumerable sets, Countable sets, uncountable sets.

1.4.2. **Examples of denumerable sets:** Set of Natural numbers, Set of Integers, Set of even natural numbers and odd natural numbers.

1.4.3. **Proposition:** Union of two disjoint denumerable sets is denumerable.

1.4.4. **Theorem:** If A_m is a countable set for each $m \in \mathbb{N}$, then the union

$A = \bigcup_{m=1}^{\infty} A_m$ is countable. (Countable union of countable sets is countable)

1.4.5. **Theorem:** The set of Rational numbers is denumerable.

1.4.6. **Theorem:** Any subset of countable set is countable.

1.4.7. **Theorem:** The closed interval $[0,1]$ is uncountable.

1.4.8. **Corollary:** The set of all real numbers is uncountable.

1.4.9. **Examples**

Unit2: The Real numbers

(16hrs)

2.1. Algebraic and Order Properties of \mathbb{R} .

2.1.1. Algebraic properties of real numbers.

2.1.2. **Theorem:** Let $a, b, c \in \mathbb{R}$.

- (a) If $a > b$ and $b > c$, then $a > c$
- (b) If $a > b$, then $a + c > b + c$
- (c) If $a > b$ and $c > 0$, then $ac > bc$. If $a > b$ and $c < 0$, then $ac < bc$

2.1.3. Theorem:

- (a) If $a \in \mathbb{R}$ and $a \neq 0$, then $a^2 > 0$.
- (b) $1 > 0$
- (c) If $n \in \mathbb{N}$, then $n > 0$.

2.1.4. Theorem: If $a \in \mathbb{R}$ is such that $0 \leq a < \epsilon$ for every $\epsilon > 0$ then $a = 0$.

2.1.5. Theorem: If $ab > 0$, then either (i) $a > 0$ and $b > 0$ or (ii) $a < 0$ and $b < 0$

2.1.6. Corollary: If $ab < 0$, then either (i) $a < 0$ and $b > 0$ or (ii) $a > 0$ and $b < 0$

2.2. Inequalities

2.2.1. If $a \geq 0, b \geq 0$, then prove that

$$a < b \Leftrightarrow a^2 < b^2 \Leftrightarrow \sqrt{a} < \sqrt{b}.$$

2.2.2. Arithmetic-Geometric mean inequality (with proof).

2.2.3. Bernoulli's inequality (with proof).

2.3. Absolute Value and neighbourhood

2.3.1. Definition: Absolute value of a real number

2.3.2. Theorem:

- (a) $|ab| = |a| \cdot |b|$ for all $a, b \in \mathbb{R}$
- (b) $|a|^2 = a^2$ for all $a \in \mathbb{R}$
- (c) If $c \geq 0$, then $|a| \leq c$ if and only if $-c \leq a \leq c$
- (d) $-|a| \leq a \leq |a|$ for all $a \in \mathbb{R}$

2.3.3. Theorem (Triangle inequality): If $a, b \in \mathbb{R}$, then $|a + b| \leq |a| + |b|$.

2.3.4. Corollary: If $a, b \in \mathbb{R}$, then (i) $||a| - |b|| \leq |a - b|$ (ii) $|a - b| \leq |a| + |b|$

2.3.5. Corollary: If a_1, a_2, \dots, a_n are any real numbers then

$$|a_1 + a_2 + \dots + a_n| \leq |a_1| + |a_2| + \dots + |a_n|$$

2.3.6. Examples on inequalities

2.3.7. Definition: ϵ - Neighbourhood.

2.3.8. Theorem: Let $a \in \mathbb{R}$. If x belongs to the neighbourhood $V_\epsilon(a)$ for every

$$\epsilon > 0 \text{ then } x = a.$$

2.4. Completeness property of \mathbb{R}

- 2.4.1. **Definitions:** Lower bound, Upper bound of a subset of \mathbb{R} , Bounded set, Supremum (least upper bound), Infimum (greatest lower bound).
- 2.4.2. **The completeness property of \mathbb{R} (The supremum property)**
- 2.4.3. Applications of the supremum property.
- 2.4.4. **Theorem: (Archimedean Property)** If $x \in \mathbb{R}$, then there exists $n_x \in \mathbb{N}$ such that $x \leq n_x$.
- 2.4.5. **Corollary:** If $S = \left\{ \frac{1}{n} : n \in \mathbb{N} \right\}$, then $\inf S = 0$.
- 2.4.6. **Corollary:** If $t > 0$, then there exists $n_t \in \mathbb{N}$ such that $0 < \frac{1}{n_t} < t$.
- 2.4.7. **Corollary:** If $y > 0$, then there exists $n_y \in \mathbb{N}$ such that $n_y - 1 < y < n_y$.
- 2.4.8. **Theorem:** There exists a positive real number x such that $x^2 = 2$.
- 2.4.9. **Theorem: (The Density theorem)** If x and y are any real numbers with $x < y$, then there exists a rational number $r \in \mathbb{Q}$ such that $x < r < y$.
- 2.4.10. **Corollary:** If x and y are real numbers with $x < y$, then there exists an irrational number z such that $x < z < y$.

2.5. Intervals

- 2.5.1. **Characterization theorem:** If S is a subset of \mathbb{R} that contains at least two points and has the property
if $x, y \in S$ and $x < y$, then the closed interval $[x, y] \subseteq S$,
then S is an interval.

Recommended Book

- 1) **Introduction to Real Analysis**, Robert G. Bartle and Donald R. Sherbert, Wiley Student Edition, 2010.

Reference Books:

- 1) **Methods of Real Analysis**, R. R. Goldberg, Oxford and IBH Publishing House, New Delhi, 1970.
- 2) **A Basic Course in Real Analysis**, Ajit Kumar and S. Kumaresan, CRC Press, Taylor & Francis Group, 2014.
- 3) **Real Analysis**, HariKishan, Pragati Prakashan, fourth revised edition 2012
- 4) **An Introduction to Real Analysis**, P. K. Jain and S. K. Kaushik, S. Chand & Co., New Delhi, 2000.

B.Sc. Part II (Mathematics) (Semester III)
(Choice Based Credit System)
(Introduced from June 2019 onwards)

Course Code: DSC – 6C

Title of Course: **Algebra–I**

Theory: 32 hrs. (40 lectures of 48 minutes)

Marks – 50 (Credits: 02)

Course Objectives : Upon successful completion of this course, the student will be able to:

1. understand properties of matrices
2. solve System of linear homogeneous equations and linear non-homogeneous equations.
3. find Eigen values and Eigen vectors.
4. construct permutation group and relate it to other groups.
5. classify the various types of groups and subgroups.

Unit1: Matrices and Relations

- 1.5. **Definitions:** Hermitian and Skew Hermitian matrices.
- 1.6. **Properties** of Hermitian and Skew Hermitian matrices.
- 1.7. Rank of a matrix, Row-echelon form and reduced row echelon form.
- 1.8. System of linear homogeneous equations and linear non-homogeneous equations.
 - 1.8.1. Condition for consistency
 - 1.8.2. Nature of the general solution
 - 1.8.3. Gaussian elimination and Gauss Jordan method (Using row-echelon form and reduced row echelon form).
 - 1.8.4. Examples on 1.4.1 and 1.4.3
- 1.9. The characteristic equation of a matrix, Eigen values, Eigen vectors of a matrix.
- 1.10. **Cayley Hamilton theorem**
- 1.11. Applications of Cayley Hamilton theorem (Examples).
- 1.12. **Relations:** Definition, Types of relations, Equivalence relation, Partial ordering relation
- 1.13. **Examples** of equivalence relations and Partial ordering relations.
- 1.14. Digraphs of relations, matrix representation.
- 1.15. Composition of relations
- 1.16. Transitive closure, Warshall's algorithm
- 1.17. Equivalence classes, Partition of a set
 - 1.17.1. **Theorem:** Let \sim be an equivalence relation on a set X . Then

- (a) For every $x \in X, x \in \overline{X}$
- (b) For every $x, y \in X, x \in \overline{Y}$ if and only if $\overline{X} = \overline{Y}$.
- (c) For every $x, y \in X$, either $\overline{x} = \overline{y}$ or $\overline{x} \cap \overline{y} = \emptyset$.

1.17.2. Equivalence class Theorem

Unit2: Groups

(16 hours)

- 2.1. **Definition** of Binary Operations and examples
- 2.2. **Groups and its Properties**
 - 2.2.1. **Definition** of Group, Semigroup, Abelian group, finite and infinite group, Quaternion group and Order of the group and examples
 - 2.2.2. **Theorem:** In a group G
 - (i) Identity element is unique
 - (ii) Inverses of each elements in G is unique
 - (iii) $(a^{-1})^{-1} = a$ for all $a \in G$
 - (iv) $(ab)^{-1} = b^{-1}a^{-1}$ for all $a, b \in G$.
 - 2.2.3. **Theorem:** If G is a group with binary operation *, then the left and right cancellation laws hold in G, that is $a * b = a * c$ implies $b = c$, and $b * a = c * a$ implies $b = c$ for $a, b, c \in G$.
 - 2.2.4. **Theorem:** If G is a group with binary operation *, and if a and b are any elements of G, then linear equations $a * x = b$ and $y * a = b$ have unique solutions in G.
- 2.3. **Subgroups**
 - 2.3.1. **Definition** of Subgroup, Improper and Proper subgroups, Trivial subgroup and examples
 - 2.3.2. **Theorem:** A subset H of a group G is a subgroup of G if and only if
 - (i) H is closed under the binary operation of G.
 - (ii) The identity e of G is in H,
 - (iii) For all $a \in H$ it is true that $a^{-1} \in H$ also.
 - 2.3.3. **Theorem:** A non empty subset H of a group G is a subgroup of G if and only if for all $a, b \in H, a * b^{-1} \in H$.
 - 2.3.4. **Theorem:** Intersection of any two subgroups of a group is again a subgroup.
 - 2.3.5. **Definition** of Normalizer of an element in group G, Center of group G.
 - 2.3.6. **Theorem:** If G is a group and $a \in G$, then the set $N(a) = \{ x \in G \mid xa = ax \}$ is a subgroup of G.
 - 2.3.7. **Theorem:** If G is a group, then the set $C = \{ x \in G \mid xa = ax, \text{ for all } a \in G \}$ is the set of all the elements of G which commutes with every elements of G.
- 2.4. **Cyclic Groups and its Properties**
 - 2.4.1. **Definition** of Cyclic group generated by an element, Cyclic subgroup of a group and examples
 - 2.4.2. **Theorem:** If G is a group and $a \in G$ is a fixed element of G, then the set $H = \{ a^n \mid n \in \mathbb{Z} \}$ is a subgroup of G.
 - 2.4.3. **Definition** of Order of an element of a group and its properties.
 - 2.4.4. **Theorem:** Every cyclic group is abelian.

- 2.4.5. **Theorem:** If a is a generator of a cyclic group G , so is a^{-1} .
- 2.4.6. **Theorem:** If a is a generator of a cyclic group G , then $O(a) = O(G)$.
- 2.4.7. **Theorem:** If G is a finite group of order n containing an element of order n , then G is cyclic.
- 2.4.8. **Theorem:** If in a cyclic group $\langle a \rangle$ of order k , $a^m = a^n$ ($m \neq n$), then $m \equiv n \pmod{k}$.
- 2.4.9. **Theorem:** Every subgroup of a cyclic group is cyclic.
- 2.4.10. **Theorem:** A cyclic group of order d has $\phi(d)$ generators.

2.5. Cosets

2.5.1. **Definition** of Left and Right Cosets in group G and examples

2.5.2. **Theorem:** If H is a subgroup of G , then

- (i) $Ha = H$ if and only if $a \in H$
- (ii) $Ha = Hb$ if and only if $ab^{-1} \in H$
- (iii) Ha is a subgroup of G if and only if $a \in H$

2.5.3. **Theorem:** If H is a subgroup of G , then for all $a \in G$ $Ha = \{x \in G \mid x \equiv a \pmod{H}\}$.

2.5.4. **Theorem:** If H is a subgroup of G then there exists a one to one correspondence between any two right (left) cosets of H in G .

Recommended Books

- Howard Anton—Elementary Linear Algebra, Fifth Edition John Wiley & Sons.
- J. B. Fraleigh, A First Course in Abstract Algebra, Narosa Publishing House New Delhi.

Reference Books---

- Kenneth Hoffman, Ray Kunze---Linear Algebra, Second Edition, PHI Learning Private LTD. New Delhi-110001-2010.
- Vivek Sahai, Vikas Bist—Linear Algebra, Alpha Science International LTD. Pangbourne.
- I. N. Herstein-- Topics in Algebra, Wiley India Pvt. Ltd.
- S. kumaresan—Linear Algebra, A Geometric Approach

B.Sc. Part II (Mathematics) (Semester IV)
(Choice Based Credit System)
(Introduced from June 2019 onwards)

Course Code: DSC – 5D

Title of Course: Real Analysis – II

Theory: 32Hrs. (40 Lectures of 48 minutes)

Marks – 50 (Credits: 02) **Course**

Objectives : Upon successful completion of this course, the student will be able to:

1. understand sequence and subsequence.
2. prove The Bolzano-Weierstrass Theorem.
3. derive Cauchy Convergence Criterion.
4. find convergence of series.
5. apply Leibnitz Test.

UNIT 1: Sequence of real numbers

(20 Lectures)

1.1 Sequence and subsequence

- 1.1.1** Definition and examples.
- 1.1.2** Limit of sequence and examples using definition.
- 1.1.3** Theorem: If $\{S_n\}_{n=1}^{\infty}$ is sequence of non-negative real numbers and if $\lim S_n = L$ then $L \geq 0$.
- 1.1.4** Convergent sequences and examples.
- 1.1.5** Theorem: If the sequence of real numbers $\{S_n\}_{n=1}^{\infty}$ is convergent to L, then $\{S_n\}_{n=1}^{\infty}$ can not converge to limit distinct from L.
- 1.1.6** Theorem (without proof) : If the sequence of real numbers $\{S_n\}_{n=1}^{\infty}$ is convergent to L, then any subsequence of $\{S_n\}_{n=1}^{\infty}$ is also convergent to L.
- 1.1.7** Theorem (without proof): All subsequences of a convergent sequence of real numbers converge to the same limit.
- 1.1.8** Bounded sequences and examples.
- 1.1.9** Theorem: If the sequence of real numbers $\{S_n\}_{n=1}^{\infty}$ is convergent, then it is bounded.

1.2 Monotone Sequences

- 1.2.1** Definition and examples.
- 1.2.2** Theorem: A non-decreasing sequence which is bounded above is convergent.
- 1.2.3** Theorem: A non-increasing sequence which is bounded below is convergent.
- 1.2.4** Corollary: The sequence $\{1 + 1/n^n\}$ is convergent.
- 1.2.5** Theorem (without proof): A non-decreasing sequence which is not bounded above diverges to infinity.
- 1.2.6** Theorem (without proof): A non-increasing sequence which is not bounded below diverges to minus infinity.

1.2.7 Theorem : A bounded sequence of real numbers has a convergent subsequence.

1.3 Operations on convergent sequences

1.3.1 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are sequences of real numbers, if $\lim S_n = L$ and $\lim t_n = M$ then $\lim (S_n + t_n) = L + M$.

1.3.2 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are sequences of real numbers, if $\lim S_n = L$ and $\lim t_n = M$ then $\lim (S_n - t_n) = L - M$.

1.3.3 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is a sequence of real numbers, if $c \in \mathbb{R}$, and if $\lim S_n = L$ then $\lim cS_n = cL$.

1.3.4 Theorem: If $0 < x < 1$, then the sequence $\{x^n\}$ converges to 0.

1.3.5 Lemma: If $\{S_n\}_{n=1}^{\infty}$ is a sequence of real numbers which converges to L then $\{S_n^2\}_{n=1}^{\infty}$ converges to L^2 .

1.3.6 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are sequences of real numbers, if $\lim S_n = L$ and $\lim t_n = M$ then $\lim (S_n \cdot t_n) = LM$.

1.3.7 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are sequences of real numbers, if $\lim S_n = L$ and $\lim t_n = M$ then $\lim (S_n / t_n) = L / M$.

1.4 Limit Superior and Limit Inferior of Sequences

1.4.1 Definition and examples.

1.4.2 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is a convergent sequence of real numbers, then $\lim_{n \rightarrow \infty} \sup S_n = \lim_{n \rightarrow \infty} S_n$.

1.4.3 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is a convergent sequence of real numbers, then $\lim_{n \rightarrow \infty} \inf S_n = \lim_{n \rightarrow \infty} S_n$.

1.4.4 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is a sequence of real numbers, and if $\lim_{n \rightarrow \infty} \sup S_n = \lim_{n \rightarrow \infty} \inf S_n = L$ where $L \in \mathbb{R}$, then $\{S_n\}_{n=1}^{\infty}$ is convergent and $\lim_{n \rightarrow \infty} S_n = L$.

1.4.5 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are bounded sequences of real numbers and if $S_n \leq t_n$ then i) $\lim_{n \rightarrow \infty} \sup S_n \leq \lim_{n \rightarrow \infty} \sup t_n$.

$$\text{ii) } \lim_{n \rightarrow \infty} \inf S_n \leq \lim_{n \rightarrow \infty} \inf t_n.$$

1.4.6 Theorem: If $\{S_n\}_{n=1}^{\infty}$ and $\{t_n\}_{n=1}^{\infty}$ are bounded sequences of real numbers then i) $\lim_{n \rightarrow \infty} \sup (S_n + t_n) \leq \lim_{n \rightarrow \infty} \sup S_n + \lim_{n \rightarrow \infty} \sup t_n$.
ii) $\lim_{n \rightarrow \infty} \inf (S_n + t_n) \geq \lim_{n \rightarrow \infty} \inf S_n + \lim_{n \rightarrow \infty} \inf t_n$.

1.5 The Cauchy Sequence

1.5.1 Definition and examples

1.5.2 Theorem: If the sequence of real numbers $\{S_n\}_{n=1}^{\infty}$ converges, then $\{S_n\}_{n=1}^{\infty}$ is a Cauchy sequence.

- 1.5.3 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is the Cauchy sequence of real numbers then $\{S_n\}_{n=1}^{\infty}$ is bounded.
- 1.5.4 Theorem: If $\{S_n\}_{n=1}^{\infty}$ is the Cauchy sequence of real numbers then $\{S_n\}_{n=1}^{\infty}$ is convergent.
- 1.5.5 Definition and examples of $(C, 1)$ summability of sequence.

UNIT 2 Infinite Series (20 Lectures)

2.1 Convergent and Divergent Series

- 2.1.1 Definition: Infinite series, convergent and divergent series, sequence of partial sum of series and examples.
- 2.1.2 A necessary condition for convergence: A necessary condition for convergence of an infinite series $\sum u_n$ is that $\lim u_n = 0$.
- 2.1.3 Cauchy's General Principal of Convergence (statement only).
- 2.1.3 Theorem: A series $\sum u_n$ converges iff for every $\epsilon > 0$ there exists a positive number m such that $|u_{n+1} + u_{n+2} + \dots + u_{n+p}| < \epsilon$, for every all $n \geq m$ and $p \geq 1$.

2.2 Positive Term Series

- 2.2.1 Definition and examples.
- 2.2.2 Theorem: A positive term series converges iff its sequence of partial sums is bounded above.
- 2.2.3 Geometric Series: The positive term geometric series **Error! Objects cannot be created from editing field codes.**ⁿ converges for $r < 1$, and diverges to infinity for ≥ 1 .
- 2.2.4 Theorem: A positive term series **Error! Objects cannot be created from editing field codes.**^p is convergent if and only if $p > 1$.

2.3 Comparison Tests For Positive Term Series

- 2.3.1 Comparison Test (First Type): If $\sum u_n$ and $\sum v_n$ are two positive term series, and $k \neq 0$, a fixed positive real number (independent of n) and there exists a positive integer m such that $u_n \leq kv_n$, for every $n \geq m$, then
- $\sum u_n$ is convergent, if $\sum v_n$ is convergent, and
 - $\sum v_n$ is divergent, if $\sum u_n$ is divergent.
- 2.3.2 Examples.
- 2.3.3 Limit Form: If $\sum u_n$ and $\sum v_n$ are two positive term series such that $\lim (u_n / v_n) = L$, where L is a non zero finite number, then the two series converge or diverge together.
- 2.3.4 Comparison Test (Second Type): If $\sum u_n$ and $\sum v_n$ are two positive term series, and there exists a positive number m such that $(u_n / u_{n+1}) \geq (v_n / v_{n+1})$, for every $n \geq m$, then (a) $\sum u_n$ is convergent, if $\sum v_n$ is convergent, and (b) $\sum v_n$ is divergent, if $\sum u_n$ is divergent.

2.3.5 Examples.

2.3.6 Cauchy's Root Test: If $\sum u_n$ is a positive term series such that $\lim (u_n)^{1/n} = L$, then the series (i) converges, if $L < 1$, (ii) diverges, if $L > 1$, and (iii) the test fails to give any definite information, if $L = 1$.

2.3.7 Examples.

2.3.8 D'Alembert's Ratio Test: If $\sum u_n$ is a positive term series, such that $\lim (u_{n+1} / u_n) = L$, then the Series (i) converges, if $L < 1$. (ii) diverges, if $L > 1$, and (iii) the test fails, if $L = 1$.

2.3.9 Examples.

2.3.10 Raabe's Test: If $\sum u_n$ is a positive term series such that $\lim n\{ (u_n / u_{n+1}) - 1 \} = L$, then the series (i) converges, if $L > 1$. (ii) diverges, if $L < 1$, and (iii) the test fails, if $L = 1$.

2.3.11 Examples.

2.4 Alternating Series

2.4.1 Definition and examples.

2.4.2 Leibnitz Test: If the alternating series $u_1 - u_2 + u_3 - u_4 + \dots$ ($u_n > 0$, for every n) is such that (i) $u_{n+1} \leq u_n$, for every n and (ii) $\lim u_n = 0$, then the series converges.

2.4.3 Examples.

2.5 Absolute and Conditional Convergence

2.5.1 Definition and examples .

2.5.2 Theorem: Every absolutely convergent series is convergent.

2.5.3 Examples.

Recommended Books:

- 1. R.R.Goldberg**, Methods of Real Analysis, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi. **For Unit 1**
- 2. S.C.Malik and SavitaArora**, Mathematical Analysis (Fifth Edition), New Age International (P) Limited, 2017. **For Unit 2**

Reference Books:

- 1. R.G.Bartle and D.R.Sherbert**, Introduction to Real Analysis, Wiley India Pvt. Ltd., Fourth Edition 2016.
- 2. D Somasundaram and B Choudhary**, First Course in Mathematical Analysis, Narosa Publishing House New Delhi, Eighth Reprint 2013.
- 3. P.K.Jain and S.K.Kaushik**, An Introduction to Real Analysis, S.Chand& Company Ltd. New Delhi, First Edition 2000.
- 4. Shanti Narayan and M.D.Raisinghanian**, Elements of Real Analysis, S.Chand& Company Ltd. New Delhi, Fifteenth Revised Edition 2014
- 5. Shanti Narayan and P.K.Mittal**, A Course of Mathematical Analysis, S.Chand& Company Ltd. New Delhi, Reprint 2016

B.Sc. Part II (Mathematics) (Semester IV)
(Choice Based Credit System)
(Introduced from June 2019 onwards)

Course Code: DSC – 6D

Title of Course: Algebra-II

Theory: 32 hrs. (40 lectures of 48 minutes)

Marks – 50 (Credits: 02)

Course Objectives : Upon successful completion of this course, the student will be able to:

1. prove Lagrange's theorem.
2. derive Fermat's theorem.
3. understand properties of normal subgroups, factor group.
4. define homomorphism and isomorphism's in group and rings.
5. derive basic properties of rings and subrings.

Unit - 1 Groups

(16 hours)

1.1 Lagrange's theorem and its Consequences

1.1.1 **Definition** of Index of a subgroup

1.1.2 **Theorem(Lagrange):** If G is any finite group and H is any subgroup of G , then $O(H)$ divides $O(G)$.

1.1.3 **Corollary:** The index of any subgroup of a finite group is a divisor of the order of the group.

1.1.4 **Corollary:** If G is a finite group and $a \in G$, then $O(a)$ divides $O(G)$.

1.1.5 **Corollary:** If G is a finite group of order n then for all $a \in G$, $a^n = e$, where e is the identity element of G .

1.1.6 **Theorem(Euler's theorem):** If n is any positive integer and a is relatively prime to n , then $a^{\phi(n)} \equiv 1 \pmod{n}$

1.1.7 **Theorem(Fermat's theorem):** If a is any integer and p is any positive prime, then $a^p \equiv a \pmod{p}$.

1.2 Normal subgroups and its Properties

1.2.1 **Definition** of Normal subgroup and examples

1.2.2 **Theorem:** A subgroup H of a group G is normal if and only if $gHg^{-1} = H$ for all $g \in G$.

1.2.3 **Theorem:** A subgroup H of a group G is normal if and only if every right coset of H in G is a left coset of H in G .

1.2.4 **Corollary:** Every subgroup of an abelian group is a normal subgroup.

1.2.5 **Theorem:** A subgroup H of a group G is normal in G if and only if the product of any two right (or left) cosets H in G is again a right (or left) coset of H in G .

1.2.6 **Results related to Normal subgroups**

- (i) The intersection of any two normal subgroups of a group is also a normal subgroup.
- (ii) The product of any two normal subgroups of a group is a subgroup of the group.
- (iii) Let H be a subgroup and K be normal subgroup of the group G . Then $H \cap K$ is normal in H .
- (iv) If N is a normal subgroup of G and H is any subgroup of G , then NH is a subgroup of G .
- (v) The center Z of a group G is a normal subgroup of G .
- (vi) The center Z of a group is a normal subgroup of a normalizer of an element.

1.3 Factor Group (Quotient Group)

1.3.1 **Definition** of Factor Group or Quotient Group and examples

1.3.2 **Theorem:** The set $G/H = \{Ha \mid a \in G\}$ of all cosets of a normal subgroup H , of the group G , is a group under the binary operation defined by $Ha \cdot Hb = H(ab)$, for all $Ha, Hb \in G/H$.

1.3.3 **Theorem:** If H is a normal subgroup of finite order, then $O(G/H) = O(G)/O(H)$.

1.3.4 **Theorem:** Every Quotient group of an abelian group is abelian.

1.3.5 **Theorem:** Every factor group of a cyclic group is cyclic

1.4 Homomorphism of Groups

1.4.1 **Definition** of Homomorphism, Isomorphism, Automorphism and Endomorphism of Groups and examples.

1.4.2 **Theorem:** Let $f : G \rightarrow G'$ be a homomorphism from the group (G, \cdot) into the group $(G', *)$. Then

- (i) $f(e) = e'$, where e and e' are the identity elements of the groups G and G' respectively.
- (ii) $f(a^{-1}) = [f(a)]^{-1}$, for all $a \in G$.

1.4.3 **Theorem:** If f is a homomorphism of a group G into a group G' , then the range $f(G) = \{f(g) \mid \text{for all } g \in G\}$ is a subgroup of G' .

1.4.4 **Theorem:** The homomorphic image of the group G in the group G' is a subgroup of G' .

1.4.5 **Theorem:** Let $f : G \rightarrow G'$ be a homomorphism from the group G into the group G' and H is a subgroup of G , then $f(H)$ is also a subgroup of G' .

1.4.6 **Theorem:** Let $f : G \rightarrow G$ be a homomorphism of the group G into itself and H is a cyclic subgroup of G , then $f(H)$ is again a cyclic subgroup of G .

Unit – 2 Normal subgroups

(16 hours)

2.1. Kernel of a Homomorphism

2.1.1. **Definition** of Kernel of a Homomorphism and examples.

2.1.2. **Theorem:** Let $f : G \rightarrow G'$ be a homomorphism of a group G into G' with Kernel K . Then K is a normal subgroup of G .

2.1.3. **Theorem:** Let $f : G \rightarrow G'$ be a homomorphism of a group G into G' with Kernel K . Then f is one – one if and only if $K = \{e\}$, where e is the identity element of G .

2.1.4. **Corollary:** A homomorphism f from the group G onto the group G' is an isomorphism if and only if $\text{Ker } f = \{e\}$.

- 2.1.5. **Theorem:** Let G be a group and H be a normal subgroup of G . Then G/H is a homomorphic image of G with H as its Kernel.
- 2.1.6. **Theorem(Fundamental Homomorphism Theorem):** Let f be a homomorphism of a group G into a group G' , with kernel K . Then $f(G)$ is isomorphic to factor group G/K .
- 2.1.7. **Results related to Isomorphism**
- (i) If $f : G \rightarrow G'$ be an isomorphism of a group G onto a group G' and a is any element of G then the order of $f(a)$ equals the order of a .
 - (ii) If $f : G \rightarrow G'$ be an isomorphism and G is an abelian group then G' is also abelian.
 - (iii) Any infinite cyclic group is isomorphic to the group Z of integers, under addition.
 - (iv) Any finite cyclic group of order n is isomorphic to additive group of integers modulo n .

2.2. Permutation Group

- 2.2.1. **Definition** of Permutation, Degree of permutation, Equality of two permutations, Identity permutations, Inverse and Composition of permutation and Symmetric group and examples.
- 2.2.2. **Theorem:** Let S be a non empty finite set of n elements. The set S_n of all permutations of degree n defined on S , is a finite group of order $n!$, under the permutation multiplication.
- 2.2.3. **Theorem(Cayley's Theorem):** Every finite group is isomorphic to a group of permutation.

2.3. Rings

- 2.3.1. Definition and examples.
- 2.3.2. Basic Properties.
- 2.3.3. Homomorphism and isomorphism in a ring.
- 2.3.4. Multiplicative questions: Fields
- 2.3.5. Examples of Commutative and non-commutative rings.
- 2.3.6. Rings from number system, Z_n the ring of integers modulo n .

2.4. Subrings

- 2.4.1. Definition and examples.
- 2.4.2. Basic properties
- 2.4.3. Ideals: Definition and examples.
- 2.4.4. Examples of subring which are not ideals.

Recommended Books:

- 1 **J. B. Fraleigh**, A First Course in Abstract Algebra, Narosa Publishing House New Delhi, Tenth Reprint 2003.
- 2 **V. K. Khanna and S. K. Bhambri**, A Course in Abstract Algebra, Vikas Publishing House Pvt Ltd., New Delhi, Fifth Edition 2016.

Reference Books:

- 1 **I.N. Herstein**, Topics in Algebra, Wiley indiaPvt. Ltd,
- 2 **M. Artin**, Algebra, Prentice Hall of India, New Delhi, 1994
- 3 **N. S. Gopalkrishnan**, University Algebra, New Age International New Delhi, Second Edition 1986

B. A./B. Sc. (Mathematics) (Part II)
(Choice Based Credit System)
(Introduced from June 2019 onwards)
Core Course Practical in Mathematics (CCPM – II)
Marks 50 (Credit 04)
(Analysis I & II and Algebra I & II)

SEMESTER-III		
Sr. No.	Topic	No. of Practicals
1	Eigen values and Eigen vectors	1
2	Cayley Hamilton theorem (Verification and finding inverse of matrix)	1
3	Range of function, Image and inverse image of a subset	1
4	Types of Function (Injective, Surjective, Bijective , Inverse function, Composition of two functions)	1
5	Mathematical induction	1
SEMESTER-IV		
6	Limit of a sequence (using definition)	1
7	Convergence of sequence	1
8	Comparison test and Cauchy's root test	1
9	D' Alembert's ratio test and Rabbi's test	1
10	Examples on Group and order of an element	1
11	Cyclic subgroup	1
12	Permutation group	1
13	Homomorphism and Kernel	1

Core Course Practical in Mathematics (CCPM – III)

Marks 50 (Credit 04)

(Numerical Recipes in Scilab)

SEMESTER-III		
Sr. No	Content	No. of Practical's
1	Introduction: Application, feature, scilabs environment workspace, working directory, Scilab as a calculate, operators, mathematical predefined functions, constants, variables and their types.	1
2	Matrix: Rows matrix, column matrix, general matrix, operation on matrix addition, subtraction, product.	1
3	Accessing element of matrix: Size of Matrix, Length of matrix, accessing element using one index, two indices	1
4	Sub Matrix: Accessing sub matrix of given matrix using ':' operator & '\$' operator	1
5	Advanced matrix operations: Matrix functions: eye(), zero (), ones (), empty matrix, element-wise operation, determinant, inverse, trace of matrix & diagonal element of matrix.	1
6	Polynomial: Creating a polynomial 1) using roots 2) using coefficients, roots of polynomial, derivative companion matrix, numerator & denominator of rational, simplifying rational.	1
7	Plotting graph: Creating graphs of simple functions.	1
8	Introduction Scilab programming: disp(), Boolean operators, conditional statement (if select), find() and () or (), looping statement.	1
SEMESTER-IV		
9	Advanced Scilab programming using function: Creating Scilab function and its execution.	1
10	Numerical Methods to find roots of a given of a given function:	1

	(a) Bisection Method (b) Newton-Raphson Method.	
11	Interpolation (a) Lagrange's interpolation formula (b) Newton Gregory forward interpolation formula. (c) Newton Gregory backward interpolation formula.	1
12	Graph theory: Havel-Hakimi Theorem, Transitive closure.	1
13	Numerical Integration: (a) Trapezoidal Rule (b) Simpson's $1/3^{\text{rd}}$ Rule (c) Simpson's $3/8^{\text{th}}$ Rule	1
14	Characteristic Polynomial: Characteristic polynomial, its coefficients, roots(Eigen values), Derivation of Eigen Vectors using roots, Direct Derivation of Eigen Values and vectors using Spec(), Verify Cayley-Hamilton theorem using coefficients.	1
15	Numerical Methods for solution of Ordinary Differential Equations: (a) Euler Method (b) Euler's Modified Method (c) Runge-Kutta Second and Fourth order Method	1
16	Numerical Methods for solution of a system of Linear Equations: (Unique solution case only) (a) Gauss-Elimination Method. (b) Gauss-Jordan Method.	1

Recommended Books:

- 1) **R. G. Bartle and D. R. Sherbert**, Introduction to Real Analysis, Wiley India Pvt. Ltd., Fourth Edition 2016.
- 2) **S. C. Malik and Savita Arora**, Mathematical Analysis (Fifth Edition), New Age International (P) Limited, 2017

Reference Books:

- 1) **R. R. Goldberg**, Methods of Real Analysis, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
- 2) **D Somasundaram and B Choudhary**, First Course in Mathematical Analysis, Narosa Publishing House New Delhi, Eighth Reprint 2013

- 3) **P. K. Jain and S. K. Kaushik**, An Introduction to Real Analysis, S.Chand & Company Ltd. New Delhi, First Edition 2000
- 4) **Shanti Narayan and Dr. M. D. Raisinghania**, Elements of Real Analysis, S.Chand & Company Ltd. New Delhi, Fifteenth Revised Edition 2014
- 5) **Shanti Narayan and P. K. Mittal**, A Course of Mathematical Analysis, S.Chand & Company Ltd. New Delhi, Reprint 2016
- 6) **Dr. Hari Kishan**, Real Analysis, Pragati Prakashan, Meerut, Fourth Edition 2012
- 7) **SCILAB: A Practical Introduction to Programming and Problem Solving** [Print Replica] Kindle Edition by Tejas Sheth (Author)
- 8) **Scilab A Hands on Introduction** by Satish Annigeri .
- 9) **Engineering and Scientific Computing with Scilab 1999th** Edition by Claude Gomez (Editor), C. Bunks (Contributor), J.-P. Chancelier (Contributor), F. Delebecque (Contributor), M. Goursat (Contributor), R. Nikoukhah (Contributor), S. Steer (Contributor)
- 10) **Scilab: from Theory to Practice - I. Fundamentals Book by Philippe Roux**
- 11) **Introduction to Scilab: For Engineers and Scientists Book by Sandeep Nagar**

SHIVAJI UNIVERSITY, KOLHAPUR



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CHOICE BASED CREDIT SYSTEM

Syllabus For

B.Sc. Part -III Mathematics

SEMESTER V AND VI

(Syllabus to be implemented from June, 2020 onwards.)

B.Sc.Part-III [Semester V] (Credit - 8]

Course code	Title o the course	Instructio ns Lectures /Week	Duration of term end exam	Marks of Term end exam	Marks (Internal) Of Continuous Assessment	Credit
DSE E9	Mathematical Analysis	3	2 hours	40	10	2
DSE E10	Abstract Algebra	3	2 hours	40	10	2
DSE E11	Optimization Techniques	3	2 hours	40	10	2
DSE E12	Integral Transforms	3	2 hours	40	10	2

B.Sc.Part-III [Semester VI] (Credit - 8]

Course code	Title o the course	Instructions Lectures/Week	Duration of term end exam	Marks Term end exam	Marks (Internal) Of Continuous Assessment	Credit
DSE F9	Metric Spaces	3	2 hours	40	10	2
DSE F10	Linear Algebra	3	2 hours	40	10	2
DSE F11	Complex Analysis	3	2 hours	40	10	2
DSE F12	Discrete Mathematics	3	2 hours	40	10	2

Core Course Practical in Mathematics [CCPM IV to VII]

The practical examination will be conducted at the end of second term that is annual pattern

Total Credit 16

Course code	Title o the course	Instructions Lectures/Week	Duration of term end exam	Marks [End of academic year]	Credit
CCPM IV	Operations Research	5	6 hours	50	4
CCPM V	Laplace and Fourier Transforms	5	6 hours	50	4
CCPM VI	Mathematical Computation Using Python	5	6 hours	50	4
CCPM VII	Project, sturdy tour, viva.	5	6 hours	50	4

EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS (FOR REVISED SYLLABUS

Sem - V

Old Paper number	Equivalence	New Course code	Title of the course
IX	Real Analysis	DSE E9	Mathematical Analysis
X	Abstract Algebra	DSE E10	Abstract Algebra
XII	Numerical Methods - I	DSE E11	Optimization Techniques
XI	Partial Differential Equations	DSE E12	Integral Transforms

Sem - VI

Old Paper number	Equivalence	New Course code	Title of the course
XIII	Metric spaces	DSE F9	Metric Spaces
XIV	Linear Algebra	DSE F10	Linear Algebra
XV	Complex Analysis	DSE F11	Complex Analysis
XVI	Numerical Methods	DSE F12	Discrete Mathematics

CCPM

Old course code	Equivalence	New Course code	Title of the course
CML – IV	Operations Research Techniques	CCPM IV	Operations Research
CML – V	Numerical Methods	CCPM V	Laplace and Fourier Transforms
CML – VI	Numerical Recipes in C++, SciLab	CCPM VI	Mathematical Computation Using Python
CML – VII	Project, study tour, viva.	CCPM VII	Project, study tour, Seminar, viva.

B.Sc. (Mathematics) (Part-III) (Semester-V)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – E9

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Title of Course: Mathematical Analysis

Marks – 40 (Credits: 02)

Course Objectives: The objectives of course is to understand and learn about

1. The integration of bounded function on a closed and bounded interval
2. Some of the families and properties of Riemann integrable functions
3. The applications of the fundamental theorems of integration
4. Extension of Riemann integral to the improper integrals when either the interval of integration is infinite or the integrand has infinite limits at a finite number of points on the interval of integration
5. The expansion of functions in Fourier series and half range Fourier series

Unit -1 : Riemann Integration

(16 hours)

Definition of Riemann integration, Inequalities for lower and upper Darboux sums, Necessary and sufficient conditions for Riemann integrability, Definition of Riemann integration by Riemann sum and equivalence of the two definitions, Riemann integrability of monotonic functions and continuous functions, Algebra and properties of Riemann integrable functions, First and second fundamental theorems of integral calculus, and the integration by parts.

Unit -2 : Improper Integrals and Fourier Series

(16 hours)

Improper Integrals: Definition of improper integral of first kind, Comparison test, μ – test for Convergence, Absolute and conditional convergence, Integral test for convergence of series, Definition of improper integral of second kind and some tests for their convergence, Cauchy principle value.

Fourier Series: Definition of Fourier series and examples on the expansion of functions in Fourier series, Fourier series corresponding to even and odd functions, half range Fourier series, half range sine and cosine series

Recommended Books:

1. **Kenneth.A.Ross**, Elementary Analysis: The Theory of Calculus, Second Edition, Undergraduate Texts in Mathematics, Springer, 2013.
(Chapter 6, Art. 32.1 to 32.11, 33.1 to 33.6 and 34.1 to 34.4)
2. **D Somasundaram and B Choudhary**, First Course in Mathematical Analysis, Narosa Publishing House New Delhi, Eighth Reprint 2013 (Chapter 8, Art. 8.5 and Chapter 10, Art. 10.1)

Reference Books:

1. **R.R.Goldberg**, Methods of Real Analysis, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
2. **R.G.Bartle and D.R.Sherbert**, Introduction to Real Analysis, Wiley India Pvt. Ltd., Fourth Edition 2016.
3. **Shanti Narayan and Dr.M.D.Raisinghania**, Elements of Real Analysis, S.Chand & Company Ltd. New Delhi, Fifteenth Revised Edition 2014
4. **Shanti Narayan and P.K.Mittal**, A Course of Mathematical Analysis, S.Chand & Company Ltd. New Delhi, Reprint 2016.
5. **Kishan Hari**, Real Analysis, Pragati Prakashan, Meerut, Fourth Edition 2012.

B.Sc. (Mathematics) (Part-III) (Semester-V)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – E10

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Title of Course: Abstract Algebra

Marks – 40 (Credits: 02)

Course Objectives: After successful completion of this course the students will be able to

1. Basic concepts of group and rings with examples
2. Identify whether the given set with the compositions form Ring, Integral domain or field.
3. Understand the difference between the concepts Group and Ring.
4. Apply fundamental theorem, Isomorphism theorems of groups to prove these theorems for Ring.
5. Understand the concepts of polynomial rings, unique factorization domain.

Unit -1: Groups and Rings

16 hours

Groups: Definition and examples of groups, group S_3 and Dihedral group D_4 , Commutator subgroups and its properties, Conjugacy in group and class equation.

Rings: Definition and example of Rings, Ring with unity. Zero divisor, Integral Domain, Division Ring, Field, Boolean ring, Subring, Characteristic of a ring: Nilpotent and Idempotent elements. Ideals, Sum of two ideals, Examples. Simple Ring.

Unit-2: Homomorphism and Imbedding of Ring , Polynomial Ring and Unique Factorization Domain.

16 hours

Quotient Rings, Homomorphism, Kernel of Homomorphism ,Isomorphism theorems,imbedding of Ring. Maximal Ideals. Polynomial Rings, degree of Polynomial, addition and multiplication of Polynomials and their properties, UFD, Gauss' Lemma.

Recommended Books:

- 1) Vijay K. Khanna, S.K. Bhambri, A Course In Abstract Algebra, Vikas publishing House Pvt.Ltd., New –Delhi-110014, Fifth Edition 2016.
(Chap. 3 Art. The Dihedral Group, commutator, Chap. 4 Art. Conjugate elements, Chap.7 Art. Subrings, characteristic of a ring, Ideals, Sum of Ideals, Chap. 8 Art. Quotient rings, Homomorphisms, Embedding of Rings, More on Ideals, Maximal Ideals, Chap 9 Polynomial Rings, Unique Factorization Domain.)

Reference Books:

1. Jonh B. Fraleigh, A First Course in Abstract Algebra Pearson Education, Seventh Edition(2014).
2. Herstein I. N, Topics in Algebra, Vikas publishing House,1979.
3. Malik D. S. Moderson J. N. and Sen M. K., Fundamentals of Abstract Algebra, McGraw Hill,1997.
4. Surjeet Sing and Quazi Zameeruddin, Modern Algebra, Vikas Publishing House,1991.
5. N.Jacobson, Basic Algebra Vol. I&II, Freeman and Company, New York 1980.

B.Sc. (Mathematics) (Part-III) (Semester-V)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – E11

Title of Course: Optimization Techniques

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Marks – 40 (Credits: 02)

Course Objectives: The aim of this course is to

1. provide student basic knowledge of a range of operation research models and techniques, which can be applied to a variety of industrial and real life applications.
2. Formulate and apply suitable methods to solve problems.
3. Identify and select procedures for various sequencing, assignment, transportation problems.
4. Identify and select suitable methods for various games .
5. To apply linear programming and find algebraic solution to games.

Unit-1 Network optimization models :

[16 hours]

Introduction ,Formulation of Linear Programming Problems., Graphical methods for Linear Programming problems. General formulation of Linear Programming problems, Slack and surplus variables, Canonical form, Standard form of Linear Programming problems. Transportation problem: Introduction, Mathematical formulation ,Matrix form of Transportation problem. Feasible solution, Basic feasible solution and optimal solution, Balanced and unbalanced transportation problems. Methods of Initial basic feasible solutions: North west corner rule [Stepping stone method], Lowest cost entry method [Matrix minima method], Vogel's Approximation method [Unit Cost Penalty method] ,The optimality test.[MODI method], Assignment Models :Introduction ,Mathematical formulation of assignment problem, Hungarian method for assignment problem. Unbalanced assignment problem. Travelling salesman problem.

Unit-2 Quantitative techniques:

[16 hours]

Game theory: Basic definitions , Minimax [Maximin] Criterion and optimal strategy, Saddle point , optimal strategy and value of game. Solution of games with saddle point. Fundamental theorem of game theory [Minimax theorem] , Two by two (2 X 2) games without saddle point. Algebraic method of Two by two (2 X 2) games. Arithmetic method of Two by two (2 X 2) games. Graphical method for 2 x n games and m x 2 games. Principle of dominance, Job sequencing : Introduction. Terminology and notations. Principal assumptions. Solution of sequencing problems. Processing n jobs through 2 machines. Processing n jobs through 3 machines. Processing 2 jobs through m machines. Processing n jobs through m machines.

Recommended Book:

1. Sharma S.D., Operations Research - Theory Methods and Applications"Kedarnath, Ramnath Meerut, Delhi Reprint 2015.

Reference Books:

1. Mohan, C. and Deep, Kusum, Optimization Techniques, New Age, 2009.
2. Mittal, K. V. and Mohan, C., Optimization Methods in Operations, Research and Systems Analysis, New Age, 2003.
3. Taha, H.A. :Operations Research – An Introduction, Prentice Hall, (7th Edition), 2002.
4. Ravindran, A. , Phillips, D. T and Solberg, J. J., Operations Research: Principles and Practice, John Wiley and Sons, 2nd Edition, 2009.
5. J.K. Sharma : Operation Research: Theory and Applications, Laxmi Publications, 2017.
6. Kanti Swarup, P.K. Gupta and Manmohan, Operation Research, S.Chand & Co.
7. G. Hadley: Linear programming , Oxford and IBH Publishing Co.

B.Sc. (Mathematics) (Part-III) (Semester–V)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – E12

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Title of Course: Integral Transforms

Marks – 40 (Credits: 02)

Course Objective : Students be able to

1. understand concept of Laplace Transform.
2. apply properties of Laplace Transform to solve differential equations.
3. understand relation between Laplace and Fourier Transform.
4. understand infinite and finite Fourier Transform.
5. apply Fourier transform to solve real life problems.

Unit: 1 Laplace and Inverse Laplace Transform.

16 Hours

Laplace Transform : Definitions; Piecewise continuity, Function of exponential order, Function of class A, Existence theorem of Laplace transform. Laplace transform of standard functions. First shifting theorem and Second shifting theorem and examples, Change of scale property and examples, Laplace transform of derivatives and examples, Laplace transform of integrals and examples. Multiplication by power of t and examples. Division by t and examples. Laplace transform of periodic functions and examples. Laplace transform of Heaviside's unit step function. Inverse Laplace Transform: Definition Standard results of inverse Laplace transform, Examples, First shifting theorem and Second shifting theorem and examples. Change of scale property and Inverse Laplace of derivatives, examples. The Convolution theorem and Multiplication by S , examples. Division by S , inverse Laplace by partial fractions, examples, Solving linear differential equations with constant coefficients by Laplace transform.

Unit 2 Fourier Transform

16 Hours

The infinite Fourier transform and inverse: Definition examples Infinite Fourier sine and cosine transform and examples. Definition: Infinite inverse Fourier sine and cosine transform and examples. Relationship between Fourier transform and Laplace transform. Change of Scale Property and examples. Modulation theorem. The Derivative theorem. Extension theorem.

Convolution theorem and examples. Finite Fourier Transform and Inverse, Fourier Integrals :

Finite Fourier sine and cosine transform with examples. Finite inverse Fourier sine and cosine transform with examples. Fourier integral theorem. Fourier sine and cosine integral (without proof) and examples.

Recommended Book:

1. J.K. Goyal, K.P. Gupta, Laplace and Fourier Transforms, A Pragati Edition (2016).

Reference Books:

1. Dr. S. Shrenadh, Integral Transform, S. Chand Prakashan.
2. B. Davies, Integral Transforms and Their Applications, Springer Science Business Media LLC (2002)
3. Murray R. Spiegel, Laplace Transforms, Schaum's outlines.

B.Sc. (Mathematics) (Part-III) (Semester–VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – F9

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Title of Course: Metric Spaces

Marks – 40 (Credits: 02)

Course objectives : Upon successful completion of this course, the student will be able to:

1. acquire the knowledge of notion of metric space, open sets and closed sets.
2. demonstrate the properties of continuous functions on metric spaces,
3. apply the notion of metric space to continuous functions on metric spaces.
4. understand the basic concepts of connectedness, completeness and compactness of metric spaces,
5. appreciate a process of abstraction of limits and continuity to metric spaces,

Unit –1 Limits and Continuous Functions on Metric Spaces 16 hours

Limit of a function on the real line, Metric Spaces, Limits in Metric Spaces, Functions continuous at a point on the real line, Reformulation, Functions continuous on a metric space, Open Sets, Closed Sets, More about open sets.

Unit 2: Connectedness, Completeness and Compactness 16 hours

Connected Sets, Bounded sets and totally bounded sets, Complete metric spaces, Compact metric spaces, Continuous functions on compact metric spaces.

Recommended Book:

1. R. R. Goldberg, Methods of Real Analysis, Oxford and IBH Publishing House. (2017).

Reference Books:

1. T. M. Apostol, Mathematical Analysis, Narosa Publishing House. (2002)
2. Satish Shirali, H. L. Vasudeva, Mathematical Analysis, Narosa Publishing House. (2013)
3. D. Somasundaram, B. Choudhary, First Course in Mathematical Analysis, Narosa Publishing House, (2018).
4. W. Rudin, Principles of Mathematical Analysis, McGraw Hill Book Company (1976).
5. Shantinayakan, Mittal, A Course of Mathematical Analysis, S. Chand and Company (2013).
6. J.N. Sharma, Mathematical Analysis-I, Krishna Prakashan Mandir, Meerut. (2014)
7. S.C. Malik, Savita Arora, Mathematical Analysis, New age International Ltd (2005).

B.Sc. (Mathematics) (Part-III) (Semester–VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – F10

Title of Course: Linear Algebra

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Marks – 40 (Credits: 02)

Course Objectives: Upon successful completion of this course, the student will be able to:

1. understand notion of vector space, subspace, basis.
2. understand concept of linear transformation and its application to real life situation.
3. work out algebra of linear transformations.
4. appreciate connection between linear transformation and matrices.
5. work out eigen values, eigen vectors and its connection with real life situation.

Unit 1: Vector Spaces and Linear Transformations

(16 hours)

Vector space: Subspace, Sum of subspaces, direct sum, Quotient space, Homomorphism or Linear transformation, Kernel and Range of homomorphism, Fundamental Theorem of homomorphism, Isomorphism theorems, Linear Span, Finite dimensional vector space, Linear dependence and independence, basis, dimension of vector space and subspaces.

Linear Transformation: Rank and nullity of a linear transformation, Sylvester's Law, Algebra of Linear Transformations, Sum and scalar multiple of Linear Transformations. The vector space of Homomorphisms, Product (composition) of Linear Transformations, Linear operator, Linear functional, Invertible and non-singular Linear Transformation, Matrix of Linear Transformations and its examples.

Unit 2: Inner Product Spaces, Eigen values and Eigen vectors

(16 hours)

Inner product spaces: Norm of a vector, Cauchy- Schwarz inequality, Orthogonality, Generalized Pythagoras Theorem, orthonormal set, Gram-Schmidt orthogonalization process, Bessel's inequality, Eigen values and Eigen vectors: Eigen space, Characteristic Polynomial of a matrix and remarks on it, similar matrices, Characteristic Polynomial of a Linear operator, Examples and real life (Predatory – Prey problem), examples on eigen values and eigen vectors.

Recommended Book:

1. Khanna V. K. and Bhambri S. K., **A Course in Abstract Algebra**, Vikas Publishing House PVT Ltd., New Delhi, 2016, 5th edition,

Reference Books:

1. H. Anton & C. Rorres, **Elementary Linear Algebra** (with Supplemental Applications), Wiley India Pvt. Ltd (Wiley Student Edition), New Delhi, 2016, 11th Edition.
2. S. Friedberg, A. Insel and L. Spence, **Linear Algebra**, Prentice Hall of India, 2014, 4th Edition.
3. Hoffman K. and Kunze R., **Linear Algebra**, Prentice Hall of India, 1978.
4. Lipschutz S., **Linear Algebra**, Schaum's Outline Series, McGraw Hill, Singapore, 1981.
5. David Lay, Steven Lay, Judi McDonald, **Linear Algebra and its Applications**, Pearson Education Asia, Indian Reprint, 2016, 5th Edition.

B.Sc. (Mathematics) (Part-III) (Semester–VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – F11

Title of Course: Complex Analysis

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Marks – 40 (Credits: 02)

Course objectives: Upon successful completion of this course, Students will

1. learn basic concepts of functions of complex variable.
2. be introduced to concept of analytic functions.
3. learn concept of complex integration and basic results thereof.
4. be introduced to concept of sequence and series of complex variable.
5. learn to apply concept of residues to evaluate certain real integrals.

Unit 1 : Analytic functions and Complex Integration

16 hours

Basic algebraic and geometric properties of complex numbers, Function of complex variable, Limits, continuity and differentiation, Cauchy Riemann equations, Analytic functions and examples of analytic functions, Exponential function, Logarithmic function, Trigonometric function, Definite integrals of functions, Contours, Contour integrals and its examples, upper bounds for moduli of contour integrals, Cauchy-Goursat theorem and examples, Cauchy integral formula and examples, Liouville's theorem and the fundamental theorem of algebra.

Unit 2 : Sequences, Series and Residue Calculus

16 hours

Convergence of sequences and series of complex variables, Taylor series and its examples, Laurent series and its examples, absolute and uniform convergence of power series, Isolated singular points, Residues, Cauchy's residue theorem, Residue at infinity, The three types of isolated singularities, Residues at poles and examples, Zeros of analytic functions, Zeros and poles, Application of residue theorem to evaluate real integrals.

Recommended book:

1. James Ward Brown and Ruel V. Churchill, *Complex Variables and Applications*, 8th Ed., McGraw – Hill Education (India) Edition, 2014. Eleventh reprint 2018.

Reference books:

1. S.Ponnusamy, Foundations of Complex Analysis, Narosa Publishing House, Second Edition , 2005, Ninth reprint 2013.
2. Lars V Ahlfors, Complex Analysis, McGraw-Hill Education; 3 edition (January 1, 1979).
3. S.B.Joshi, T.Bulboaca and P.Goswamy, Complex Analysis, Theory and Applications, DeGruyter, Germany(2019).

B.Sc. (Mathematics) (Part-III) (Semester–VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: DSE – F12

Title of Course: Discrete Mathematics

Theory: 32 Hrs. (40 Lectures of 48 minutes)

Marks – 40 (Credits: 02)

Course Objectives: Upon successful completion of this course, Students will be able to

1. use classical notions of logic: implications, equivalence, negation, proof by contradiction, proof by induction, and quantifiers.
2. apply notions in logic in other branches of Mathematics.
3. know elementary algorithms : searching algorithms, sorting, greedy algorithms, and their complexity.
4. apply concepts of graph and trees to tackle real situations.
5. appreciate applications of shortest path algorithms in computer science.

Unit 1 : Mathematical Logic

[16 hours]

The logic of compound statements: Statements, compound statements, truth values, logical equivalence, tautologies and contradictions, Conditional statements: Logical equivalences involving implication, negation. The contrapositive of a conditional statements, converse, inverse of a conditional statements, biconditional statements. Valid and invalid arguments: Modus Ponens and modus Tollens, Additional valid argument forms, rules of inferences, contradictions and valid arguments, Number system: Addition and subtraction of Binary, decimal, quintal, octal, hexadecimal number systems and their conversions.

Unit 2: Graphs and trees

[16 hours]

Graphs : Definitions, basic properties, examples, special graphs, directed and undirected graphs, concept of degree, Trails, Paths and Circuits: connectedness, Euler circuits, Hamiltonian circuits, Matrix representation of graphs, Isomorphism of graphs, isomorphic invariants, graph isomorphism for simple graphs.

Trees: Definitions and examples of trees, rooted trees, binary trees and their properties. spanning trees , minimal spanning trees, Kruskal's algorithm , Prim's algorithm, Dijkstra's shortest path algorithm.

Recommended Book:

1. Susanna S. Epp, Discrete Mathematics with Applications, PWS Publishing Company, 1995.
(Brooks/Cole, Cengage learning, 2011)

References Books :

1. Kenneth H. Rosen, Discrete Mathematics and its Applications, McGraw Hill, 2002.
2. J.P. Tremblay and R. Manohar, Discrete Mathematical Structure with Applications, McGraw– Hill.
3. V. Krishnamurthy, Combinatorics: Theory and Applications”, East-West Press.
4. Kolman, Busby Ross, Discrete Mathematical Structures, Prentice Hall International.
5. R M Somasundaram, Discrete Mathematical Structures, (PHI) 7th Edition.
6. A.B.P. Rao and R.V. Inamdar, A Graduate Text in Computer Mathematics, SUMS [1991]
7. Seymour Lipschutz and Marc Lipson, Discrete Mathematics, Schaum's Outlines Series, Tata McGraw - Hill.
8. Mathematical Foundations of Computer Science: professional publications, JNTU Hyderabad.
11. Liu C. L, Elements of Discrete Mathematics, McGraw – Hill.

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B.Sc. (Mathematics) (Part-III) (Semester–V & VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: CCPM IV

Title of Course: Operation Research

Sr.No.	Title of the experiment	Sessions
1	Graphical method for linear programming problems	1
2	Transportation Problems[North west corner rule]	1
3	Transportation Problems[Lowest Cost Entry Method]	1
4	Transportation Problems[Vogel Approximation Method]	1
5	Transportation Problems[Test for Optimality MODI method]	1
6	Assignment Problems [Hungarian Method]	1
7	Assignment Problems [Maximization Case]	1
8	Assignment Problems[Travelling Salesman Problem]	1
9	Assignment Problems[Unbalanced Problem]	1
10	Two by two (2 X 2) games without saddle point.	1
11	Algebraic method of Two by two (2 X 2) games.	1
12	Arithmetic method of Two by two (2 X 2) games.	1
13	Graphical method for 2 x n games and m x 2 games.	1
14	Processing n jobs through 2 machines.	1
15	Processing n jobs through 3 machines.	1
16.	Processing 2 jobs through m machines. Processing n jobs through m machines.	1
	Total	16

B.Sc. (Mathematics) (Part-III) (Semester–V & VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: CCPM V

Title of Course: Laplace and Fourier Transform

Sr.No.	Title of the experiment	Sessions
1	Laplace transform of elementary functions	1
2	Evaluation of integrals using properties of Laplace transform	1
3	Effect of multiplication	1
4	Effect of division	1
5	Laplace transform of integrals	1
6	Laplace transform of periodic functions	1
7	Inverse Laplace by using standard results	1
8	Inverse Laplace by Convolution theorem	1
9	Inverse Laplace by partial fractions	2
10	Infinite Fourier sine transform and inverse	1
11	Infinite Fourier cosine transform and inverse	1
12	Change of scale property of Fourier transform	1
13	Convolution theorem of Fourier transform	1
14	Finite Fourier sine transform and inverse	1
15	Finite Fourier cosine transform and inverse	1
	Total	16

B.Sc. (Mathematics) (Part-III) (Semester–V & VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: CCPM VI

Title of Course: Mathematical Computation Using Python

Sr. No.	Topic	No. Of Practicals
1.	Introduction to Python: Python, Anaconda, Spyder IDE, Python Identifiers and Keywords , data types, simple mathematical operation, Indentation and Comments., Input and Output, First Python program.	1
2	Expression and operators: Expression, Boolean expression, logical operations: comparison operator, membership operator, identity operator, bitwise operator. Order of evaluation. File Handling : open, read, write, append modes of file.	1
3	Conditional Statements: if-else, nested if-else, if-elif-else, try-except block.	1
4	Looping Statements, Control statements: Looping Statements: for loop, while loop , Nested loops Control Statements: break, continue and pass.	1
5	Functions: Built-in functions, User-defined functions, Arguments, recursive function, Python Anonymous/Lambda Function, Global, Local and Nonlocal variables and return statement.	1
6	Modules and packages in Python : Modules, import, import with renaming, from-import statement, math module ,cmath module , random module, packages.	1
7	Python Data structure: Strings, list, tuples, dictionary, set and array.	1
8	Operations on set and array: Set operations, Intersection, union, difference, symmetric difference, searching and sorting.	1
9	Systems of linear algebraic equations: Gauss Elimination Method, LU Decomposition Methods	1
10	Roots of Equations: Bisection, Newton-Raphson Method	1
11	Initial Value Problems: Euler's Method, Runge-Kutta Methods.	1
12	Magic square and Area calculation without measurement.	1
13	Graph Theory : Networkx Graph, nodes, edges, directed graph, multigraph, drawing graph, Google page rank by random walk method	1
14	Collatz conjecture and Monte Hall problem	1
15	Data compression using Numpy	1
16	Data visualization in Python: 2D and 3D plot in python : line plot, bar plot, histogram plot, scatter plot, pie plot, area plot, Mandelbrot fractal set visualization.	1
	Total	16

Recommended Book:

1. JaanKiusalaas, *Numerical Methods in Engineering with Python3*, Cambridge University Press.
2. Amit Saha, *Doing Math with Python*, No Starch Press, 2015.
3. YashwantKanetkar and Aditya Kanetkar, *Let Us Python*, BPB Publication, 2019.

B.Sc. (Mathematics) (Part-III) (Semester–V & VI)
(Choice Based Credit System)
(Introduced from June 2020)

Course Code: CCPM VII

Title of Course: Project, Study- Tour, Viva – Voce

A :PROJECT [30 Marks]

Each student of B.Sc. III is expected to read, collect, understand the culture of Mathematics, its historic development. He is expected to get acquainted with Mathematical concepts, innovations, relevance of Mathematics. Report of the project work should be submitted through the respective Department of Mathematics. Evaluation of the project report will be done by the external examiners at the time of annual examination.

B. STUDY TOUR [05 Marks] :

It is expected that the tour should contain at least renowned academic institution so that the visiting students will be inspired to go for higher studies in Mathematics.

C. SEMINARS: [05 Marks]

Students should present a seminar before the B.Sc.III class on some topic in Mathematics.

D. VIVA-VOCE (on the project report). [10 Marks]

Nature of Question papers (Theory)

Common nature of question for theory paper mentioned separately:

There will be practical at the end of second term that is annual pattern,

Nature of Practical Question Paper

(1) Core Course Mathematics Practicals - IV

This carries 50 marks.

Examination : 40 Marks

Journal : 10 Marks

(2) Core Course Mathematics Practicals - V

This carries 50 marks.

Examination : 40 Marks

Journal : 10 Marks

(3) Core Course Mathematics Practicals - VI

This carries 50 marks.

Examination : 40 Marks

Journal : 10 Marks

(4) Core Course Mathematics Practicals - VII

This carries 50 marks.

Project : 30 Marks (External Examiner)

Study Tour : 05 Marks (External Examiner)

Seminar : 05 Marks (External Examiner)

Viva Voce : 10 Marks (External Examiner)

Note : Each student of a class will select separate topic for project work. He/ She should submit the reports of his / her project work , Study tour report to the department and get the same certified.

Teaching Periods :

(i) Total teaching periods for Paper –DSE E-9, E-10,E-11,E-12, F-9,F-10, F-11,F-12 are 12 (Twelve) per week. 3 (Three) periods per paper per week.

(ii) Total teaching periods for CCPM-IV, V,VI,VII for the whole class are 20 (Twenty) per week. 5 (Five) periods per Lab. Perweek.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus For

B. Sc. Part – II

Computer Science (Optional)

SEMESTER – III AND IV

(Syllabus to be implemented from June, 2019 onwards.)

B.Sc. Computer Science (Optional) Semester-III& IV
CBCS Syllabus to be implemented from June 2019 Onwards.

1. **TITLE:** ComputerScience
2. **YEAROFIMPLEMENTATION:**RevisedSyllabuswillbeimplementedfromJune2019 onwards.
3. **DURATION:** B.Sc. in Computer Science Part- II The duration of course shall be one yearand two semesters.
4. **PATTERN:**Patternofexaminationwill be semester.
5. **STRUCTURE OFCOURSE:**

STRUCTURE OF COURSE

Sr. No.	Paper	Name of Paper	Marks
Computer Science (Semester III)			
1	DSC-11C	PHP and MySQL	50 (Theory)
2	DSC-12C	Object Oriented Programming Using C++	50 (Theory)
Computer Science (Semester IV)			
3	DSC-11D	Cyber Security Essentials-I	50 (Theory)
4	DSC-12D	Data Structure Using C++	50 (Theory)
Practical (Annual)			
5	Practical Paper-II	Computer Science Practical Paper Based on DSC-11C	50 (Practical)
6	Practical Paper-III	Computer Science Practical Paper Based on DSC-12CandDSC-12D	50 (Practical)

6. EQUIVALENCEINACCORDANCEWITHTITLESANDCONTENTSOFPAPERS
(FOR REVISED SYLLABUS)

Sr.No.	Title of old paper	Sr.No.	Title of New paper
SEMESTER III			
1	Fundamentals of Software Engineering	1	PHP and MySQL
2	Object Oriented Programming Using C++	2	Object Oriented Programming Using C++
SEMESTER – IV			
3	Relational Database Management System	3	Cyber Security Essentials-I
4	Advanced Object Oriented Programming Using C++	4	Data Structure Using C++
PRACTICAL (ANNUAL PATTERN)			

5	Computer Science Practical Paper-II	6	Computer Science Practical Paper-III
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B.Sc. Part –II Computer Science Optional (Semester– III)
Course Code: DSC-11C Computer Paper –V
Course Title: PHP and MySQL
Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes:

Students will be able

1. To understand basic concept of PHP.
2. To Learn how to developing applications in PHP using MySQL.
3. To learn and develop various PHP technology applications that definitely meets the current industry needs.

Unit – I: Introduction to PHP Scripting

18 Hrs.

- **Introduction:** Evaluation, Features, PHP Script (PHP tags `<?php... ?>`, SGML-style tags `<?...?>`, ASP style `<% ... %>`, HTML Script Tag), Comment (single and multiline), echo command, PHP script execution on terminal and web browser.
- **Variables:** Basics, Data types (Boolean, Integers, Floating points Doubles, Strings, NULL, Arrays, Resources), Variable naming rules, scope (Local, Global, static, function parameter), unset variable, Functions (gettype(), isset(), is_array(), is_bool(), is_float(), is_int(), is_null(), is_string(), is_resource())
- **Constant:** define() function to define constant, constant() to retrieve value of constant, difference between constant and variable, PHP predefined constants
- **Operators:** Arithmetic, Comparison, Relational, Assignment, Increment-Decrement, Ternary, Bitwise, Casting, Other operators (., \$, @, {}, `, =>), Operator Precedence
- **Strings:** Single Quoted and Double Quoted, escape sequences, Multiline String, Concatenation operator (.), string functions (chr(), strlen(), ltrim(), rtrim(), trim(), strtolower(), strtoupper(), strcmp(), substr(), strrev(), echo(), print(), printf())
- **Decision Making Statements:** if, if... else, if ... elseif...else, switch statement
- **Iterative Statements:** for, while, do... while, foreach, break and continue statement
- **Exit statements:** exit, die
- **User Defined Functions:** Declaring functions, function arguments (byval, byref, default arguments, variable number of arguments), return statement (by val, by ref), recursion, global scope, static variables, Dynamic Function call
- **Arrays:** Concept, Types (Numerical/List, Associative/Maps, MultiDimensional), empty array, Initialisation of arrays ([] operator, array() function, range() function), inserting element in array, Display entire array (print_r(), var_dump()), Sorting functions (sort(), rsort(), asort(), arsort(), ksort(), krsort(), natsort(), natcasesort(), array_multisort(), usort()), is_array() function, merge

arrays(array_merge()) and using + operator, array as stack(array_push(), array_pop(), array_shift(), array_unshift()), reverse array(array_reverse()), array_keys() and array_value(), key().

Unit – II: HTML, HTML forms and MySQL connectivity

18 Hrs.

- **Introduction:** HTML, necessary tags to design form layout.
- **Forms:** HTML forms, action and get & post methods. PHP super global variables (\$_PHP_SELF, \$_GET, \$_POST, \$_SERVER, \$_COOKIES, \$_REQUEST)
- **MySQL Database (Old or Improved):** Connect(mysql_connect()/mysqli_connect()), Close(mysql_close()/mysqli_close()), Select a database(mysql_select_db()/mysqli_select_db()), execute mysql query and create cursor(mysql_query()/mysqli_query()), Fetch rows from tables as row(mysql_fetch_row()/ mysqli_fetch_row()) as numeric as well as associative array using cursor(mysql_fetch_array()/ mysqli_fetch_array()), mysql_fetch_assoc()/mysqli_fetch_assoc()), release memory of cursor(mysql_free_result()/ mysqli_free_result()).

Reference Books –

1. PHP and MySQL By Dreamtech Publications
2. PHP Concepts Unleashed For Novice – Vol I - By Poornima Naik, Kavita Oza, Evincepub Publishing
3. PHP A Beginner's Guide – Vikram Vaswami
4. PHP 5.1 for Beginners – By Ivan Bayross and Sharanam Shah (Shroff Publishers & Distributors)
5. Beginning PHP 6, Apache, MySQL Web Development- By Timothy Boronczyk, Elizabeth Naramore, Jason Gerner, Yann Le Scouarnec, Jeremy Stolz, Michael K. Glass
6. PHP and MySQL by Rajendra Salokhe (Aruta Publications)
7. Learning PHP 7 by Antonio Lopez
8. Beginning PHP 5.3 by Matt Doyle
9. PHP-MySQL-Dummies-3rd-edition by Janet Valade

Practical Based on DSC-11C

Take input either from keyboard, command line or using PHP form. And use either terminal or web page to demonstrate following examples,

Sr. No	Content
1	Linear Problem: i) Arithmetic Operations on 2 numbers(real) ii) Percentage of Student in 5 Subjects iii) Convert Degree Celsius To Degree Fahrenheit using $F = \frac{9}{5}C + 32$ iv) Calculate Simple Interest. v) Display type of given value.(gettype())
2	Decision Making - I: i) Check Integer is even or odd ii) Maximum Between 3 numbers iii) Leap Year or Not iv) Grade of a student from Percentage
3	Decision Making - II: Check whether given variable stores an integer, float, Boolean, null, array, string, resource.
4	Iterative - I: i) Factorial of natural number ii) Number of digits, sum of digits, reverse number and palindrome or not iii) Prime number (using break) iv) Permutation of 1,2,3(using continue) v) Patterns: Triangles, Pyramids
5	Iterative - II: i) Sequences: Natural Numbers, Odd Natural Numbers, Even Natural Numbers, Square Natural Numbers, Fibonacci Sequence ii) Series: Sum of First n natural numbers, sum of first n odd natural numbers, sum of first n even natural numbers, sum of first n reciprocals of factorial numbers
6	Array - I: Create an array and display array and Smallest, Largest, Sum, Average of integer numeric array
7	Array – II: i) Create two arrays and merge them. ii) Create array and reverse it. iii) Create associative array and fetch value array and key array from it.
8	Array – III: sort associative array using sort(), rsort(), asort(), arsort(), ksort(), krsort()
9	Array – IV: i) Create an array and treat it as stack from begin ii) Create an array and treat it as stack from end
10	String – I : i) Reverse string ii) String is Palindrome or not

	iii) Covert to Lower or Upper Case iv) Compare two strings
11	Function - I: i) Prime Function ii) Armstrong Function iii) Factorial Function(Recursive) iv) Swap Functions(Call By Reference)
12	Function - II: i) Input Variable number of integers to function and display their sum. ii) Demonstrate working of static variable and display number function call to given function
13	MySQL – I Initial: Connect to mysql database, create own database, choose database, create a table using PHP
14	MySQL – II Manipulation: To manipulate data in a table using PHP i) insert record in a table ii) update record in a table iii) delete record from a table
15	MySQL – III Selection: To display contents of table using PHP i) All records ii) First 10 records iii) Using criteria iv) Using order by particular column
16	MySQL – IV Grouping: To display sum, avg, count group by particular column using PHP

B.Sc. Part –II Computer Science Optional (Semester– III)
Course Code: DSC-12C Computer Paper –VI
Course Title: Object Oriented Programming Using C++
Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes:

Perform object oriented programming to develop solutions to problems demonstrating usage of control structures, modularity, I/O and other standard language constructs.

Students will be able

1. To understand how C++ improves C with object oriented features
2. To learn syntax and semantics of C++ programming language
3. To learn how to write inline functions for efficiency and performance.
4. To learn how to overload functions and operators in C++.
5. To learn how to design C++ classes for code reuse.
6. To learn how inheritance promote code reuse in C++.
7. To learn how inheritance and virtual functions implement dynamic binding with polymorphism.

Unit – I: Introduction to C++ and Basics of Object oriented Programming

18 Hrs.

- **Some Concepts:** Procedure Oriented programming versus Object oriented programming, Benefits of C++ over C Language
- **Object oriented programming Concepts:** Object, class, Encapsulation, Abstraction, Polymorphism (static and dynamic), Inheritance
- **Basic C++ program:** Header file, using namespace std, main(), input (>> extraction using cin) and output (<< insertion using cout) operator, Structure of C++ Program
- **C++ Tokens:** Keywords (bool, class, delete, namespace, friend, operator keywords, and other C++ keywords), Introduction to Identifiers, constants, strings and operators as on C.
- **C++ Data Types:** Built –in /Fundamental (void, char, int, float, double), User defined(struct, union, enum, **class**), derived(array, function, pointer, **reference**)
- **Symbolic Constants:** const (simple, pointer)
- **Variable:** Definition, Declaration, Initialisation, Dynamic Initialisation and reference variables
- **Operators in C++:** DMA operators (new, delete), :: scope resolution operator, type cast operators(const_cast, static_cast, dynamic_cast, reinterpret_cast), manipulators(setw, endl, setprecision)
- **Functions:** Prototyping, Function Call(by value, by pointer, by reference), return by reference, default arguments, const arguments, inline function, constexpr function, function overloading(exact match, best match)

Unit – II: Object oriented Programming

18 Hrs.

- **C++ Class:** Difference between struct and class, class specification (class declaration with access modifiers/ visibility labels – private, public, protected members, member function definition inside as well as outside, object definition), Array (array as class member, array of objects), this pointer, static members (data members and member accessing function) and memory allocation of object,

scope of a variable (local, local to class, global)

- **Friend Function:** Characteristics, friend function and friend class
- **Constructor:** Definition, Characteristics, features, Types (Default, parameterized)
- **Destructor:** Definition, Dynamic constructor and need of destructor, exit(0) vs return(0) in main() with destructor
- **Operator overloading:** Concept, Rules, definition of operator function (member function, friend function) Overloading unary and binary operators..
- **Inheritance:** Concept (reusability), Types(single, multilevel, multiple, hierarchical, hybrid), defining derived class, introducing protected members, visibility of derived members, Diamond problem with hybrid inheritance(virtual inheritance) and virtual base class
- **Polymorphism:** Definition, types (Compile time/early binding/static binding, Run time/Late Binding/ dynamic binding), Pointer to object, Virtual and pure-virtual functions (abstract class), rules for virtual functions, virtual destructor.

Reference Books

1. Object Oriented Programming in C++ - Rajesh K. Shukla
2. Object Oriented Programming with C++ - Poonam Ponde
3. Object Oriented Programming with C++ - E Balagurusamy
4. Mastering C++ - K.R.Venugopal
5. C++ Programming - D. Ravichandran
6. A Tour of C++ (2nd Edition) - Bjarne Stroustrup.
7. The C++ Programming Language (4th Edition) - Bjarne Stroustrup.

Practical Based on DSC-12C

Use “Problem Solving Techniques” For Following problems and implement code through C++ programming language. It include: Problem Analysis, Algorithm, Flowchart, Output Tracing using Algorithm, Source Code with Output

First introduce Linux Operating System, GPU commands, C++ compilation process and components (cpp, g++, as only)with simple program and Debugging using(GDB).

Sr. No.	Content
1	Function Default Argument: i) To calculate perimeter of square($4*r$), rectangle($2*l+2*b$), triangle ($a+b+c$) ii) To calculate area of square($r*r$), rectangle($l*b$), trapezium($1/2*h*(s1+s2)$) Keeping other argument to default value zero.
2	Function Overloading: i) To calculate perimeter of square($4*r$), rectangle($2*l+2*b$), triangle ($a+b+c$) ii) To calculate area of square($r*r$), rectangle($l*b$), trapezium($1/2*h*(s1+s2)$)
3	Constructor And Destructor: Demonstrate working of constructor (default, parameterised, copy) and destructor to allocate and de-allocate memory to or from an array of integers using DMA operators new and delete.
4	Static Members: Display counter which counts numbers of objects of class, counter is incremented in constructor and decremented in destructor.
5	Friend Function: Create two classes Celsius and Fahrenheit and define friend functions to add and to compare two temperatures.
6	Operator Overloading: To overload addition, multiplication, unary minus operator on class Integer
7	Operator Overloading: To overload TypeCast operator to convert temperature in Degree Celsius To Degree Fahrenheit and Degree Fahrenheit To Degree Celsius using classes Celsius and Fahrenheit. $F = 9/5 * C + 32$
8	Pure Virtual Function And Inheritance: To specify base class Shape with pure virtual methods Input(), Perimeter() and Area(). Inherit three classes Square, Rectangle and Triangle from class Shape with appropriate data members and override methods Input(), Perimeter() and Area(). Use Pointer of class Shape to access objects of Three classes and Demonstrate working in “main” function.

B.Sc. Part –II Computer Science Optional (Semester– IV)

Course Code:DSC-11D Computer Paper –VII

Course Title: Cyber Security Essentials-I

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes:

Students will be able to:

1. Understand concept of information security management.
2. Learn different access controls methods.
3. Understand wireless network security.
4. Learn cyber security laws and importance of security audit.

Unit I: Information Security Management

18 Hrs

- **Information Security Overview:** Background and Current Scenario, Types of Attacks, DoS attack, Goals for Security, E-commerce Security, dimensions of E-commerce security, Security protocols, Computer Forensics, Steganography, Security Management- Overview of Security Management, Information Classification Process, Security Policy, Risk Management, Security Procedures and Guidelines, Business Continuity and Disaster Recovery, Ethics and Best Practices.

Unit II: Network Security, Access Controls, Cyber Security and Cyber Laws

18 Hrs

- **Wireless Network Security-** Components of wireless networks, Security issues in wireless, Wi-Fi Security, Risk of Using Unsecured Wi-Fi, Bluetooth and its security, Firewall, types of firewall.
- **Access Controls:** Overview of Authentication and Authorization, Overview of Intrusion Detection Systems, Intrusion Detection Systems and Intrusion Prevention Systems.
- **Cyber Security:** Email security: PGP and SMIME, Web Security: web authentication, SSL and SET, Database Security.
- **Cyber Security Laws:** Security Assurance, Security Laws, Intellectual Property Rights, International Standards, Security Audit- Need, Importance.

References:

1. Computer Network -AS Tannenbum
2. Cyber Security for Beginners: Everything you need to know about it (Cyber security, Cyber war, Hacking) - Harry Colvin.
3. How NOT To Use Your Smartphone - Rodney D Cambridge.
4. Online Safety: Scams, SPAM, Viruses and Clouds (Cyber Security Community Book -A.M. Perry.
5. Cyber Security Essentials- James Graham, Richard Howard, Ryon Olson (E-book)
6. Network Security Secrets and Solutions – Stuart McClure, Joe Scambray, George Kurtz.
7. Information Assurance Handbook: Effective Computer Security and Risk Management Strategies – Corey Schou, Steven Hernandez.
8. Applied Network Security Monitoring: Collection, Detection, and Analysis – Chris Sanders, Jason Smith.
9. E-Commerce- Indian Perspective- P.T. Joseph S.J.
10. E-Commerce and Security- Kjell Orsborn (E-book)

B.Sc. Part –II Computer Science Optional (Semester– IV)

Course Code:DSC-12D Computer Paper –VIII

Course Title:Data Structure Using C++

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes: Students will be able to

1. Understand the basic concepts such as Abstract Data Types, Linear and Non Linear Data structures.
2. Ability to choose appropriate data structures to represent data items in real world problems.
3. Ability to analyze the time and space complexities of algorithms.
4. Ability to design programs using a variety of data structures such as array, stacks, queues, linked list
5. Able to analyze and implement various kinds of searching and sorting techniques.

Unit – I: Introduction to Data structure & Linear Data Structures: Array, Stack and Queue

18 Hrs.

Concept of Abstract Data Types,

Definitions – Data types, Data Object, Data structure (D-Data, A-Axioms, O-Operations), Classification (Primitive, Non-Primitive: Array, Files, List: Linear, Non-Linear), Basic Operations (Traversing, Searching, Insertion, Deletion, Sorting, Merging)

Array – Definition as a Data Structure, Types (one Dimensional, multi dimensional),

Applicationsof Array – Polynomial representation using array, Operations on Polynomial (Addition & Product)

Sorting: Definition, Stable-Unstable Sorting, Adaptive-Non Adaptive Sorting, Order of Sorting (Increasing, Decreasing, Non Increasing, Non Decreasing)

Sorting Techniques: Bubble sort, Selection sort, Insertion sort, Quick sort

Searching: Linear and Binary Search

Stack: Definition, Operations (Push, Pop, Peek, Isfull, Isempty), Implementation using array

Applications of stack: Recursion, Mathematical Expressions (Well-Parentheses, Notations: Infix, Prefix, Postfix, Conversion from Infix to Postfix and Infix to Prefix)

Queue – Definition of queue, Operations (Enqueue, Dequeue, Peek, Isfull, Isempty), Types of queue (Linear, Circular, Priority), Implementation Linear Queue using array(Compaction), Implementation Circular Queue using array (Use of Counter), Applications of Queue

Unit – II: Non Linear Data Structures: Linked List and Trees

18 Hrs.

Linked List: Concept of linked list, Types of Linked List (Singly-Doubly, Linear-Circular), Implementation of Linked list, Operations on linear linked list (Insertion, Deletion, Display, Search)

Application: Implementation of stack and queue using linked list.

Trees: Definition, Terminologies (Root, Child, Parent, Siblings, Descendant, Ancestor, Leaf/External node, Branch node/Internal node, Degree, Edge, Path, Level, Depth, Height of node, Height of tree, Forest)

Binary Tree: Definition, Types (Full/Proper/Plane, Complete, Perfect, Skewed, Balanced), Array representation of Binary Tree

Binary Search Tree: Definition, Representation, Operations (Insertion, Deletion, Search, Tree Traversal:Preorder, Inorder, Postorder)

Reference Books

1. Data Structure using C and C++ -Rajesh Shukla
2. Data Structure using C and C++ - Tanenbaum
3. Data Structure using C++ - E Balagurusamy
4. Data Structure using C++ - Yashwant Kanetkar
5. Data Structure using C++ - D.S.Malik

Practical Based on DSC-12D

Use “Problem Solving Techniques” For Following problems and implement code through C++ programming language. It include: Problem Analysis, Algorithm, Flowchart, Output Tracing using Algorithm, Source Code with Output.

Sr. No	Content
1	Polynomial: Create a class Poly having member dynamic array of doubles and an integer for degree to represent polynomial. Write appropriate member functions and operators to initialise, assign, display and do following i) Evaluate polynomial for given value ii) Add to polynomials iii) Multiply two polynomials
2	Stack And Application:(Using Array) i) Implementation and Operations on Stack ii) Check Expression is Well-Parenthesized or not “Use [, (, { brackets” iii) Conversion of infix expression to postfix and prefix “Use (only”
3	Queue:(Using Array) i) Implementation and Operations on Linear Queue ii) Implementation and Operations on Circular Queue(Use Count)
4	Sorting: i) Bubble sort ii) Insertion sort iii) Selection sort iv) Quick Sort(recursive function)
5	Searching: i) Linear Search ii) Binary Search
6	Linked List: i) Implementation and Operations on Linear Linked List ii) Implementation and Operations on Circular Linked List(Use Count) iii) Implementation and Operations on Circular Linked List
7	Binary Tree: Implementation and Operation of Binary Tree using array(use 0 to represent empty cell)
8	Stack ,Queue and Binary Search Tree using Linked List: i) Implementation and Operations using Linear Linked List on Stack ii) Implementation and Operations using Linear Linked List on Queue iii) Implementation and Operations using Circular Linked List on Circular Queue iv) Implementation and Operations (insert, display inorder preoder and post order with recursive function) using Linked List on BST.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus For

B. Sc. Part – II

Computer Science (Optional)

SEMESTER – III AND IV

(Syllabus to be implemented from June, 2019 onwards.)

B.Sc. Computer Science (Optional) Semester-III& IV
CBCS Syllabus to be implemented from June 2019 Onwards.

1. **TITLE:** ComputerScience
2. **YEAROFIMPLEMENTATION:**RevisedSyllabuswillbeimplementedfromJune2019 onwards.
3. **DURATION:** B.Sc. in Computer Science Part- II The duration of course shall be one yearand two semesters.
4. **PATTERN:**Patternofexaminationwill be semester.
5. **STRUCTURE OFCOURSE:**

STRUCTURE OF COURSE

Sr. No.	Paper	Name of Paper	Marks
Computer Science (Semester III)			
1	DSC-11C	PHP and MySQL	50 (Theory)
2	DSC-12C	Object Oriented Programming Using C++	50 (Theory)
Computer Science (Semester IV)			
3	DSC-11D	Cyber Security Essentials-I	50 (Theory)
4	DSC-12D	Data Structure Using C++	50 (Theory)
Practical (Annual)			
5	Practical Paper-II	Computer Science Practical Paper Based on DSC-11C	50 (Practical)
6	Practical Paper-III	Computer Science Practical Paper Based on DSC-12CandDSC-12D	50 (Practical)

6. EQUIVALENCEINACCORDANCEWITHTITLESANDCONTENTSOFPAPERS
(FOR REVISED SYLLABUS)

Sr.No.	Title of old paper	Sr.No.	Title of New paper
SEMESTER III			
1	Fundamentals of Software Engineering	1	PHP and MySQL
2	Object Oriented Programming Using C++	2	Object Oriented Programming Using C++
SEMESTER – IV			
3	Relational Database Management System	3	Cyber Security Essentials-I
4	Advanced Object Oriented Programming Using C++	4	Data Structure Using C++
PRACTICAL (ANNUAL PATTERN)			

5	Computer Science Practical Paper-II	6	Computer Science Practical Paper-III
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B.Sc. Part –II Computer Science Optional (Semester– III)
Course Code: DSC-11C Computer Paper –V
Course Title: PHP and MySQL
Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes:

Students will be able

1. To understand basic concept of PHP.
2. To Learn how to developing applications in PHP using MySQL.
3. To learn and develop various PHP technology applications that definitely meets the current industry needs.

Unit – I: Introduction to PHP Scripting

18 Hrs.

- **Introduction:** Evaluation, Features, PHP Script (PHP tags `<?php... ?>`, SGML-style tags `<?...?>`, ASP style `<% ... %>`, HTML Script Tag), Comment (single and multiline), echo command, PHP script execution on terminal and web browser.
- **Variables:** Basics, Data types (Boolean, Integers, Floating points Doubles, Strings, NULL, Arrays, Resources), Variable naming rules, scope (Local, Global, static, function parameter), unset variable, Functions (gettype(), isset(), is_array(), is_bool(), is_float(), is_int(), is_null(), is_string(), is_resource())
- **Constant:** define() function to define constant, constant() to retrieve value of constant, difference between constant and variable, PHP predefined constants
- **Operators:** Arithmetic, Comparison, Relational, Assignment, Increment-Decrement, Ternary, Bitwise, Casting, Other operators (., \$, @, {}, `, =>), Operator Precedence
- **Strings:** Single Quoted and Double Quoted, escape sequences, Multiline String, Concatenation operator (.), string functions (chr(), strlen(), ltrim(), rtrim(), trim(), strtoupper(), strtolower(), strcmp(), substr(), strrev(), echo(), print(), printf())
- **Decision Making Statements:** if, if... else, if ... elseif...else, switch statement
- **Iterative Statements:** for, while, do... while, foreach, break and continue statement
- **Exit statements:** exit, die
- **User Defined Functions:** Declaring functions, function arguments (byval, byref, default arguments, variable number of arguments), return statement (by val, by ref), recursion, global scope, static variables, Dynamic Function call
- **Arrays:** Concept, Types (Numerical/List, Associative/Maps, MultiDimensional), empty array, Initialisation of arrays ([] operator, array() function, range() function), inserting element in array, Display entire array (print_r(), var_dump()), Sorting functions (sort(), rsort(), asort(), arsort(), ksort(), krsort(), natsort(), natcasesort(), array_multisort(), usort()), is_array() function, merge

arrays(array_merge()) and using + operator, array as stack(array_push(), array_pop(),array_shift(), array_unshift()), reverse array(array_reverse()), array_keys() and array_value(), key().

Unit – II: HTML, HTML forms and MySql connectivity

18 Hrs.

- **Introduction:** HTML, necessary tags to design form layout.
- **Forms:** HTML forms, action and get & post methods. PHP super global variables (\$_PHP_SELF, \$_GET, \$_POST, \$_SERVER, \$_COOKIES, \$_REQUEST)
- **MySql Database(Old or Improved):** Connect(mysql_connect()/mysqli_connect()), Close(mysql_close()/mysqli_close()), Select a database(mysql_select_db()/mysqli_select_db()), execute mysql query and create cursor(mysql_query()/mysqli_query()), Fetch rows from tables as row(mysql_fetch_row()/ mysqli_fetch_row()) as numeric as well as associative array using cursor(mysql_fetch_array()/ mysqli_fetch_array()), mysql_fetch_assoc()/mysqli_fetch_assoc()),release memory of cursor(mysql_free_result()/ mysqli_free_result()).

Reference Books –

1. PHP and MySQL By Dreamtech Publications
2. PHP Concepts Unleashed For Novice – Vol I - By Poornima Naik, Kavita Oza, Evincepub Publishing
3. PHP A Beginner's Guide – Vikram Vaswami
4. PHP 5.1 for Beginners – By Ivan Bayross and Sharanam Shah(Shroff Publishers &Distributors)
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1	Linear Problem: i) Arithmetic Operations on 2 numbers(real) ii) Percentage of Student in 5 Subjects iii) Convert Degree Celsius To Degree Fahrenheit using $F = \frac{9}{5}C + 32$ iv) Calculate Simple Interest. v) Display type of given value.(gettype())
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B.Sc. Part –II Computer Science Optional (Semester– III)
Course Code: DSC-12C Computer Paper –VI
Course Title: Object Oriented Programming Using C++
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Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

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Students will be able

1. To understand how C++ improves C with object oriented features
2. To learn syntax and semantics of C++ programming language
3. To learn how to write inline functions for efficiency and performance.
4. To learn how to overload functions and operators in C++.
5. To learn how to design C++ classes for code reuse.
6. To learn how inheritance promote code reuse in C++.
7. To learn how inheritance and virtual functions implement dynamic binding with polymorphism.

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18 Hrs.

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- **Functions:** Prototyping, Function Call(by value, by pointer, by reference), return by reference, default arguments, const arguments, inline function, constexpr function, function overloading(exact match, best match)

Unit – II: Object oriented Programming

18 Hrs.

- **C++ Class:** Difference between struct and class, class specification (class declaration with access modifiers/ visibility labels – private, public, protected members, member function definition inside as well as outside, object definition), Array (array as class member, array of objects), this pointer, static members (data members and member accessing function) and memory allocation of object,

scope of a variable (local, local to class, global)

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- **Operator overloading:** Concept, Rules, definition of operator function (member function, friend function) Overloading unary and binary operators..
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- **Polymorphism:** Definition, types (Compile time/early binding/static binding, Run time/Late Binding/ dynamic binding), Pointer to object, Virtual and pure-virtual functions (abstract class), rules for virtual functions, virtual destructor.

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5. C++ Programming - D. Ravichandran
6. A Tour of C++ (2nd Edition) - Bjarne Stroustrup.
7. The C++ Programming Language (4th Edition) - Bjarne Stroustrup.

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1	Function Default Argument: i) To calculate perimeter of square($4*r$), rectangle($2*l+2*b$), triangle ($a+b+c$) ii) To calculate area of square($r*r$), rectangle($l*b$), trapezium($1/2*h*(s1+s2)$) Keeping other argument to default value zero.
2	Function Overloading: i) To calculate perimeter of square($4*r$), rectangle($2*l+2*b$), triangle ($a+b+c$) ii) To calculate area of square($r*r$), rectangle($l*b$), trapezium($1/2*h*(s1+s2)$)
3	Constructor And Destructor: Demonstrate working of constructor (default, parameterised, copy) and destructor to allocate and de-allocate memory to or from an array of integers using DMA operators new and delete.
4	Static Members: Display counter which counts numbers of objects of class, counter is incremented in constructor and decremented in destructor.
5	Friend Function: Create two classes Celsius and Fahrenheit and define friend functions to add and to compare two temperatures.
6	Operator Overloading: To overload addition, multiplication, unary minus operator on class Integer
7	Operator Overloading: To overload TypeCast operator to convert temperature in Degree Celsius To Degree Fahrenheit and Degree Fahrenheit To Degree Celsius using classes Celsius and Fahrenheit. $F = 9/5 * C + 32$
8	Pure Virtual Function And Inheritance: To specify base class Shape with pure virtual methods Input(), Perimeter() and Area(). Inherit three classes Square, Rectangle and Triangle from class Shape with appropriate data members and override methods Input(), Perimeter() and Area(). Use Pointer of class Shape to access objects of Three classes and Demonstrate working in “main” function.

B.Sc. Part –II Computer Science Optional (Semester– IV)

Course Code:DSC-11D Computer Paper –VII

Course Title: Cyber Security Essentials-I

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes:

Students will be able to:

1. Understand concept of information security management.
2. Learn different access controls methods.
3. Understand wireless network security.
4. Learn cyber security laws and importance of security audit.

Unit I: Information Security Management

18 Hrs

- **Information Security Overview:** Background and Current Scenario, Types of Attacks, DoS attack, Goals for Security, E-commerce Security, dimensions of E-commerce security, Security protocols, Computer Forensics, Steganography, Security Management- Overview of Security Management, Information Classification Process, Security Policy, Risk Management, Security Procedures and Guidelines, Business Continuity and Disaster Recovery, Ethics and Best Practices.

Unit II: Network Security, Access Controls, Cyber Security and Cyber Laws

18 Hrs

- **Wireless Network Security-** Components of wireless networks, Security issues in wireless, Wi-Fi Security, Risk of Using Unsecured Wi-Fi, Bluetooth and its security, Firewall, types of firewall.
- **Access Controls:** Overview of Authentication and Authorization, Overview of Intrusion Detection Systems, Intrusion Detection Systems and Intrusion Prevention Systems.
- **Cyber Security:** Email security: PGP and SMIME, Web Security: web authentication, SSL and SET, Database Security.
- **Cyber Security Laws:** Security Assurance, Security Laws, Intellectual Property Rights, International Standards, Security Audit- Need, Importance.

References:

1. Computer Network -AS Tannenbum
2. Cyber Security for Beginners: Everything you need to know about it (Cyber security, Cyber war, Hacking) - Harry Colvin.
3. How NOT To Use Your Smartphone - Rodney D Cambridge.
4. Online Safety: Scams, SPAM, Viruses and Clouds (Cyber Security Community Book -A.M. Perry.
5. Cyber Security Essentials- James Graham, Richard Howard, Ryon Olson (E-book)
6. Network Security Secrets and Solutions – Stuart McClure, Joe Scambray, George Kurtz.
7. Information Assurance Handbook: Effective Computer Security and Risk Management Strategies – Corey Schou, Steven Hernandez.
8. Applied Network Security Monitoring: Collection, Detection, and Analysis – Chris Sanders, Jason Smith.
9. E-Commerce- Indian Perspective- P.T. Joseph S.J.
10. E-Commerce and Security- Kjell Orsborn (E-book)

B.Sc. Part –II Computer Science Optional (Semester– IV)

Course Code:DSC-12D Computer Paper –VIII

Course Title:Data Structure Using C++

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 50

Course Outcomes: Students will be able to

1. Understand the basic concepts such as Abstract Data Types, Linear and Non Linear Data structures.
2. Ability to choose appropriate data structures to represent data items in real world problems.
3. Ability to analyze the time and space complexities of algorithms.
4. Ability to design programs using a variety of data structures such as array, stacks, queues, linked list
5. Able to analyze and implement various kinds of searching and sorting techniques.

Unit – I: Introduction to Data structure & Linear Data Structures: Array, Stack and Queue

18 Hrs.

Concept of Abstract Data Types,

Definitions – Data types, Data Object, Data structure (D-Data, A-Axioms, O-Operations), Classification (Primitive, Non-Primitive: Array, Files, List: Linear, Non-Linear), Basic Operations (Traversing, Searching, Insertion, Deletion, Sorting, Merging)

Array – Definition as a Data Structure, Types (one Dimensional, multi dimensional),

Applicationsof Array – Polynomial representation using array, Operations on Polynomial (Addition & Product)

Sorting: Definition, Stable-Unstable Sorting, Adaptive-Non Adaptive Sorting, Order of Sorting (Increasing, Decreasing, Non Increasing, Non Decreasing)

Sorting Techniques: Bubble sort, Selection sort, Insertion sort, Quick sort

Searching: Linear and Binary Search

Stack: Definition, Operations (Push, Pop, Peek, Isfull, Isempty), Implementation using array

Applications of stack: Recursion, Mathematical Expressions (Well-Parentheses, Notations: Infix, Prefix, Postfix, Conversion from Infix to Postfix and Infix to Prefix)

Queue – Definition of queue, Operations (Enqueue, Dequeue, Peek, Isfull, Isempty), Types of queue (Linear, Circular, Priority), Implementation Linear Queue using array(Compaction), Implementation Circular Queue using array (Use of Counter), Applications of Queue

Unit – II: Non Linear Data Structures: Linked List and Trees

18 Hrs.

Linked List: Concept of linked list, Types of Linked List (Singly-Doubly, Linear-Circular), Implementation of Linked list, Operations on linear linked list (Insertion, Deletion, Display, Search)

Application: Implementation of stack and queue using linked list.

Trees: Definition, Terminologies (Root, Child, Parent, Siblings, Descendant, Ancestor, Leaf/External node, Branch node/Internal node, Degree, Edge, Path, Level, Depth, Height of node, Height of tree, Forest)

Binary Tree: Definition, Types (Full/Proper/Plane, Complete, Perfect, Skewed, Balanced), Array representation of Binary Tree

Binary Search Tree: Definition, Representation, Operations (Insertion, Deletion, Search, Tree Traversal:Preorder, Inorder, Postorder)

Reference Books

1. Data Structure using C and C++ -Rajesh Shukla
2. Data Structure using C and C++ - Tanenbaum
3. Data Structure using C++ - E Balagurusamy
4. Data Structure using C++ - Yashwant Kanetkar
5. Data Structure using C++ - D.S.Malik

Practical Based on DSC-12D

Use “Problem Solving Techniques” For Following problems and implement code through C++ programming language. It include: Problem Analysis, Algorithm, Flowchart, Output Tracing using Algorithm, Source Code with Output.

Sr. No	Content
1	Polynomial: Create a class Poly having member dynamic array of doubles and an integer for degree to represent polynomial. Write appropriate member functions and operators to initialise, assign, display and do following i) Evaluate polynomial for given value ii) Add to polynomials iii) Multiply two polynomials
2	Stack And Application: (Using Array) i) Implementation and Operations on Stack ii) Check Expression is Well-Parenthesized or not “Use [,{ brackets” iii) Conversion of infix expression to postfix and prefix “Use (only”
3	Queue: (Using Array) i) Implementation and Operations on Linear Queue ii) Implementation and Operations on Circular Queue(Use Count)
4	Sorting: i) Bubble sort ii) Insertion sort iii) Selection sort iv) Quick Sort(recursive function)
5	Searching: i) Linear Search ii) Binary Search
6	Linked List: i) Implementation and Operations on Linear Linked List ii) Implementation and Operations on Circular Linked List(Use Count) iii) Implementation and Operations on Circular Linked List
7	Binary Tree: Implementation and Operation of Binary Tree using array(use 0 to represent empty cell)
8	Stack ,Queue and Binary Search Tree using Linked List: i) Implementation and Operations using Linear Linked List on Stack ii) Implementation and Operations using Linear Linked List on Queue iii) Implementation and Operations using Circular Linked List on Circular Queue iv) Implementation and Operations (insert, display inorder preoder and post order with recursive function) using Linked List on BST.

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus For

B. Sc. Part – III

Computer Science (Optional)

SEMESTER – V & VI

(Syllabus to be implemented from June, 2020 onwards)

CBCS B.Sc. 3: (A) (i) Structure of B. Sc. Programme Sem I & II

Structure – I

S E M E S T E R – I (Duration – 6 Months)															
Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME							
		THEORY			PRACTICAL			THEORY				PRACTICAL			
		Credits	No. of lectures	Hours	Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min	
1	DSC-A	2	5	4	2	4	3.2	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL			
2	DSC-A	2						2	50						
3	DSC-A	2	5	4	2	4	3.2	2	50	100	35				
4	DSC-A	2						2	50						
5	DSC-A	2	5	4	2	4	3.2	2	50	100	35				
6	DSC-A	2						2	50						
7	DSC-A	2	5	4	2	4	3.2	2	50	100	35				
8	DSC-A	2						2	50						
9	AECC-A	2	4	3.2	----	----	----	2	50	50	18				
Total		18	24	19.2	8	16	12.8	-		450					
S E M E S T E R – II (Duration – 6 Months)															
1	DSC-B	2	5	4	2	4	3.2	2	50	100	35	As per BOS Guide-lines		50	18
2	DSC-B	2						2	50						
3	DSC-B	2	5	4	2	4	3.2	2	50	100	35				
4	DSC-B	2						2	50						
5	DSC-B	2	5	4	2	4	3.2	2	50	100	35				
6	DSC-B	2						2	50						
7	DSC-B	2	5	4	2	4	3.2	2	50	100	35				
8	DSC-B	2						2	50						
9	AECC-B	2	4	3.2	----	----	----	2	50	50	18				
Total		18	24	19.2	8	16	12.8	-		450					
Grand Total		36	48	38.4	16	32	25.6			900					
<ul style="list-style-type: none">Student contact hours per week : 32 Hours(Min.)Theory and Practical Lectures : 48 Minutes EachDSC–Discipline Specific Core course: Select any 4 subject pairs from A1 to A38 and B1 to B38.AECC – Ability Enhancement Compulsory Course (1A & 1B)-EnglishPractical Examination will be conducted annually for 50 Marks per course(subject).Except English, combined passingfortwotheorypapersof50markseach.i.e.Min.35marksrequiredforpassingoutof100.There shall be separate passing for theory and practical courses.															
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC)															
For Sem I: CCC – I : Democracy, Elections and Good Governance															
(B) Non-Credit Self Study Course : Skill Development Courses (SDC)															
For Sem II: SDC – I : Any one from following (i) to (v)															
i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & proposal writing															

S E M E S T E R – III (Duration – 6 Months)																
Sr. No.	Course (Subject) Title	TEACHING SCHEME						EXAMINATION SCHEME								
		THEORY				PRACTICAL			THEORY				PRACTICAL			
		Credits	No. of lectures	Hours		Credits	No. of lectures	Hours	Hours	Max	Total Marks	Min	Hours	Max	Min	
1	DSC-C	2	3	2.4		4	6.4	8	2	50	100	35	PRACTICAL EXAMINATION IS ANNUAL			
2	DSC-C	2	3	2.4					2	50						
3	DSC-C	2	3	2.4		4	6.4	8	2	50	100	35				
4	DSC-C	2	3	2.4					2	50						
5	DSC-C	2	3	2.4		4	6.4	8	2	50	100	35				
6	DSC-C	2	3	2.4					2	50						
7	AECC-C	4	4	3.2		---	---	---			---	---				
	TOTAL	16	22	17.6		12	19.2	24			300	---				
S E M E S T E R – IV (Duration – 6 Months)																
1	DSC-D	2	3	2.4		4	6.4	8	2	50	100	35	As per BOS Guide-lines	100	35	
2	DSC-D	2	3	2.4					2	50						
3	DSC-D	2	3	2.4		4	6.4	8	2	50	100	35				
4	DSC-D	2	3	2.4					2	50						
5	DSC-D	2	3	2.4		4	6.4	8	2	50	100	35				
6	DSC-D	2	3	2.4					2	50						
7	AECC-C AECC-D	---	---	---	---	---	---	3	70 30	100	25 10	---	---	---		
	TOTAL	12 28	18 40	14.4 32	12 24	19.2 38.4	24 48				400 700	--- --	---	---	---	
• Studentcontacthoursperweek:32Hours(Min.)							• Total Marks for B.Sc.-II(IncludingEVS) 1000									
• Theory and Practical Lectures : 48 MinutesEach							• Total Credits for B.Sc.-II (Semester III & IV) :52									
• DSC:-Discipline Specific Core Course:Selectany3subjectpairs,relevanttothoseoptedasB.Sc.I, From DSCC1toDSCC38and/orDSCIC39toDSCIC50andDSCD1toDSCD38and/orDSCID39to DSCID50.																
• AECC- Ability Enhancement Compulsory Course (1C): Environmental Studies: EVS (Theory – 70 & Project – 30 Marks)																
• Practical Examination will be conducted annuallyfor100Markspercourse(subject)																
• Except Environmental Studies, combined passingfortwotheorypapersof50markseach.i.e.Min.35 marks required for passing out of100.																
• There shall be separate passing for theory and practical courses also for Environmental Studies.																

ii) Structure of B. Sc. Programme Sem V & VI

Structure - III

		S E M E S T E R – V (Duration – 6 Months)														
Sr. No.	Subject Title	TEACHING SCHEME							EXAMINATION SCHEME							
		THEORY				PRACTICAL			THEORY				PRACTICAL			
		Credits	No. of lectures	Hours		Credits	No. of lectures	Hours	Hours	Theory	Internal	Min Marks	Hours	Max Marks	Min Marks	
1	DSE-E	2	3	2.4		8	20	16	2	40	10	14+4=18	PRACTICAL EXAMINATION IS ANNUAL			
2	DSE-E	2	3	2.4					2	40	10	14+4=18				
3	DSE-E	2	3	2.4					2	40	10	14+4=18				
4	DSE-E	2	3	2.4					2	40	10	14+4=18				
5	AECC-E	2	4	3.2					2	40	10	14+4=18				
	TOTAL	10	16	12.8	8	20	16		200	50	---					
S E M E S T E R – VI (Duration – 6 Months)																
1	DSE-F	2	3	2.4		8	20	16	2	40	10	14+4=18	As per BOS Guidelines	200	70	
2	DSE-F	2	3	2.4					2	40	10	14+4=18				
3	DSE-F	2	3	2.4					2	40	10	14+4=18				
4	DSE-F	2	3	2.4					2	40	10	14+4=18				
5	AECC-F	2	4	3.2					---	---	---	2	40	10	14+4=18	---
TOTAL		10	16	12.8	8	20	16		200	50	---					
GRAND TOTAL		20	32	25.6	16	40	32		400	100	--	---	200			
<div>• Student contact hours per week: 32 Hours (Min)</div> <div>• Theory and Practical Lecture : 48 Min. Each</div> <div>• DSE- Discipline Specific Elective. A candidate shall select one course (subject) from the three Courses (Subjects) selected at B.Sc.–II. Select any 4 pairs of papers from DSE-E1 to DSE-E84 for Sem–V and DSE-F1 to DSE - F84 for Semester - VI</div> <div>• AECC- Ability Enhancement Compulsory Course (E & F) : English</div> <div>• Practical Examination will be conducted annually for 200 Marks.</div> <div>• There shall be separate passing for theory, internal and practical</div>																
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC) For Sem V: CCC – II : Constitution of India and Local Self Government																
(B) Non-Credit Self Study Course : Skill Development Courses (SDC) For Sem VI: SDC – II: Any one from following (vi) to (x) vi) Interview & Personal Presentation Skill, vii) Entrepreneurship Development Skill, viii) Travel & Tourism, ix) E-Banking & Financial Services, x) RTI & Human Right Education (HRE), IPR & Patents																

CBCS R.B. Sc. 3: (B) List of courses:

i) B. Sc. Part 1 (Sem I &II),

Course code	Name of Course	Course code	Name of Course
B. Sc. 1: Sem I DSC – 1A to 38 A			
DSC A1	Physics I	DSC A21	Geology I
DSC A2	Physics II	DSC A22	Geology II
DSC A3	Chemistry I	DSC A23	Seed Technology I
DSC A4	Chemistry II	DSC A24	Seed Technology II
DSC A5	Mathematics I	DSC A25	Microbiology I
DSC A6	Mathematics II	DSC A26	Microbiology II
DSC A7	Statistics I	DSC A27	Industrial Microbiology I
DSC A8	Statistics II	DSC A28	Industrial Microbiology II
DSC A9	Electronics I	DSC A29	Biochemistry I
DSC A10	Electronics II	DSC A30	Biochemistry II
DSC A11	Computer Science I	DSC A31	Psychology I
DSC A12	Computer Science II	DSC A32	Psychology II
DSC A13	Botany I	DSC A33	Food Science & Quality control I
DSC A14	Botany II	DSC A34	Food Science & Quality control II
DSC A15	Zoology I	DSC A35	Astrophysics I
DSC A16	Zoology II	DSC A36	Astrophysics II
DSC A17	Biotechnology (Opt) I	DSC A37	Nanotechnology (opt) I
DSC A18	Biotechnology (Opt) II	DSC A38	Nanotechnology (opt) II
DSC A19	Geography I		
DSC A20	Geography II	AECC – A	English – I

DSC: Discipline Specific Core Course

AECC – Ability Enhancement Compulsory Course

Sem II: DSC – 1B to 38B

Course code	Name of Course	Course code	Name of Course
B. Sc. 1: Sem II DSC – 1B to 38B			
DSC B1	Physics III	DSC B21	Geology III
DSC B2	Physics IV	DSC B22	Geology IV
DSC B3	Chemistry III	DSC B23	Seed Technology III
DSC B4	Chemistry IV	DSC B24	Seed Technology IV
DSC B5	Mathematics III	DSC B25	Microbiology III
DSC B6	Mathematics IV	DSC B26	Microbiology IV
DSC B7	Statistics III	DSC B27	Industrial Microbiology III
DSC B8	Statistics IV	DSC B28	Industrial Microbiology IV
DSC B9	Electronics III	DSC B29	Biochemistry III
DSC B10	Electronics IV	DSC B30	Biochemistry IV
DSC B11	Computer Science III	DSC B31	Psychology III
DSC B12	Computer Science IV	DSC B32	Psychology IV
DSC B13	Botany III	DSC B33	Food Science & Quality control III
DSC B14	Botany IV	DSC B34	Food Science & Quality control IV
DSC B15	Zoology III	DSC B35	Astrophysics III
DSC B16	Zoology IV	DSC B36	Astrophysics IV
DSC B17	Biotechnology (Opt) III	DSC B37	Nanotechnology (opt) III
DSC B18	Biotechnology (Opt) IV	DSC B38	Nanotechnology (opt) IV
DSC B19	Geography III		
DSC B20	Geography IV	AECC – B	English – II

ii) B.Sc. Part 2 (Sem III &IV)

Course code	Name of Course	Course code	Name of Course
B. Sc. 2: Sem III DSC – 1C to 38C			
DSC C1	Physics V	DSC C21	Geology V
DSC C2	Physics VI	DSC C22	Geology VI
DSC C3	Chemistry V	DSC C23	Seed Technology V
DSC C4	Chemistry VI	DSC C24	Seed Technology VI
DSC C5	Mathematics V	DSC C25	Microbiology V
DSC C6	Mathematics VI	DSC C26	Microbiology VI
DSC C7	Statistics V	DSC C27	Industrial Microbiology V
DSC C8	Statistics VI	DSC C28	Industrial Microbiology VI
DSC C9	Electronics V	DSC C29	Biochemistry V
DSC C10	Electronics VI	DSC C30	Biochemistry VI
DSC C11	Computer Science V	DSC C31	Psychology V
DSC C12	Computer Science VI	DSC C32	Psychology VI
DSC C13	Botany V	DSC C33	Food Science & Quality control V
DSC C14	Botany VI	DSC C34	Food Science & Quality control VI
DSC C15	Zoology V	DSC C35	Astrophysics V
DSC C16	Zoology VI	DSC C36	Astrophysics VI
DSC C17	Biotechnology (Opt) V	DSC C37	Nanotechnology (opt) V
DSC C18	Biotechnology (Opt) VI	DSC C38	Nanotechnology (opt) VI
DSC C19	Geography V	*	
DSC C20	Geography VI		

***Interdisciplinary Courses (IDS) (DSC - IC)**

DSC IC39	Astrophysics I	DSC IC45	Plant Protection I
DSC IC40	Astrophysics II	DSC IC46	Plant Protection II
DSC IC41	Geochemistry I	DSC IC47	Pollution I
DSC IC42	Geochemistry II	DSC IC48	Pollution II
DSC IC43	Biochemistry I	DSC IC49	Fisheries I
DSC IC44	Biochemistry II	DSC IC50	Fisheries II

Sem – IV

Course code	Name of Course	Course code	Name of Course
B. Sc. 2: Sem IV DSC – 1D to 38D			
DSC D1	Physics VII	DSC D20	Geography VIII
DSC D2	Physics VIII	DSC D21	Geology VII
DSC D3	Chemistry VII	DSC D22	Geology VIII
DSC D4	Chemistry VIII	DSC D23	Seed Technology VII
DSC D5	Mathematics VII	DSC D24	Seed Technology VIII
DSC D6	Mathematics VIII	DSC D25	Microbiology VII
DSC D7	Statistics VII	DSC D26	Microbiology VIII
DSC D8	Statistics VIII	DSC D27	Industrial Microbiology VII
DSC D9	Electronics VII	DSC D28	Industrial Microbiology VIII
DSC D10	Electronics VIII	DSC D29	Biochemistry VII
DSC D11	Computer Science VII	DSC D30	Biochemistry VIII
DSC D12	Computer Science VIII	DSC D31	Psychology VII
DSC D13	Botany VII	DSC D32	Psychology VIII
DSC D14	Botany VIII	DSC D33	Food Science & Quality control VII
DSC D15	Zoology VII	DSC D34	Food Science & Quality control VIII
DSC D16	Zoology VIII	DSC D35	Astrophysics VII
DSC D17	Biotechnology (Opt) VII	DSC D36	Astrophysics VIII
DSC D18	Biotechnology (Opt) VIII	DSC D37	Nanotechnology (opt) VII
DSC D19	Geography VII	DSC D38	Nanotechnology (opt) VIII
		*	
AECC C Environmental Studies (Theory Paper)			
AECC D Environmental Studies (Project)			

*Interdisciplinary Courses (IDS) (DSC – ID)

DSC ID39	Astrophysics III	DSC ID45	Plant Protection III
DSC ID40	Astrophysics IV	DSC ID46	Plant Protection IV
DSC ID41	Geochemistry III	DSC ID47	Pollution III
DSC ID42	Geochemistry IV	DSC ID48	Pollution IV
DSC ID43	Biochemistry III	DSC ID49	Fisheries III
DSC ID44	Biochemistry IV	DSC ID50	Fisheries IV

iii) B. Sc. Part 3 (Sem V &VI)

Discipline Specific Elective (DSE)

Course code	Name of Course	Course code	Name of Course
B. Sc. 3: Sem V DSE – 1E to 84E			
DSE E1	Physics IX	DSE E45	Seed Technology IX
DSE E2	Physics X	DSE E46	Seed Technology X
DSE E3	Physics XI	DSE E47	Seed Technology XI
DSE E4	Physics XII	DSE E48	Seed Technology XII
DSE E5	Chemistry IX	DSE E49	Microbiology IX
DSE E6	Chemistry X	DSE E50	Microbiology X
DSE E7	Chemistry XI	DSE E51	Microbiology XI
DSE E8	Chemistry XII	DSE E52	Microbiology XII
DSE E9	Mathematics IX	DSE E53	Industrial Microbiology IX
DSE E10	Mathematics X	DSE E54	Industrial Microbiology X
DSE E11	Mathematics XI	DSE E55	Industrial Microbiology XI
DSE E12	Mathematics XII	DSE E56	Industrial Microbiology XII
DSE E13	Statistics IX	DSE E57	Biochemistry IX
DSE E14	Statistics X	DSE E58	Biochemistry X
DSE E15	Statistics XI	DSE E59	Biochemistry XI
DSE E16	Statistics XII	DSE E60	Biochemistry XII
DSE E17	Electronics IX	DSE E61	Psychology IX
DSE E18	Electronics X	DSE E62	Psychology X
DSE E19	Electronics XI	DSE E63	Psychology XI
DSE E20	Electronics XII	DSE E64	Psychology XII
DSE E21	Computer Science IX	DSE E65	Food Science & Quality control IX
DSE E22	Computer Science X	DSE E66	Food Science & Quality control X
DSE E23	Computer Science XI	DSE E67	Food Science & Quality control XI
DSE E24	Computer Science XII	DSE E68	Food Science & Quality control XII
DSE E25	Botany IX	DSE E69	Plant Protection V
DSE E26	Botany X	DSE E70	Plant Protection VI
DSE E27	Botany XI	DSE E71	Plant Protection VII
DSE E28	Botany XII	DSE E72	Plant Protection VIII
DSE E29	Zoology IX	DSE E73	Fisheries V
DSE E30	Zoology X	DSE E74	Fisheries VI

DSE E31	Zoology XI	DSE E75	Fisheries VII
DSE E32	Zoology XII	DSE E76	Fisheries VIII
DSE E33	Biotechnology (Opt) IX	DSE E77	Astrophysics IX
DSE E34	Biotechnology (Opt) X	DSE E78	Astrophysics X
DSE E35	Biotechnology (Opt) XI	DSE E79	Astrophysics XI
DSE E36	Biotechnology (Opt) XII	DSE E80	Astrophysics XII
DSE E37	Geography IX	DSE E81	Nanotechnology (Opt)IX
DSE E38	Geography X	DSE E82	Nanotechnology (Opt)X
DSE E39	Geography XI	DSE E83	Nanotechnology (Opt)XI
DSE E40	Geography XII	DSE E84	Nanotechnology (Opt)XII
DSE E41	Geology IX		
DSE E42	Geology X		
DSE E43	Geology XI		
DSE E44	Geology XII	AECC E	English III

SEM – VI

Course code	Name of Course	Course code	Name of Course
B. Sc. 3: Sem VI DSE – 1F to 84F			
DSE F1	Physics XIII	DSE F45	Seed Technology XIII
DSE F2	Physics XIV	DSE F46	Seed Technology XIV
DSE F3	Physics XV	DSE F47	Seed Technology XV
DSE F4	Physics XVI	DSE F48	Seed Technology XVI
DSE F5	Chemistry XIII	DSE F49	Microbiology XIII
DSE F6	Chemistry XIV	DSE F50	Microbiology XIV
DSE F7	Chemistry XV	DSE F51	Microbiology XV
DSE F8	Chemistry XVI	DSE F52	Microbiology XVI
DSE F9	Mathematics XIII	DSE F53	Industrial Microbiology XIII
DSE F10	Mathematics XIV	DSE F54	Industrial Microbiology XIV
DSE F11	Mathematics XV	DSE F55	Industrial Microbiology XV
DSE F12	Mathematics XVI	DSE F56	Industrial Microbiology XVI
DSE F13	Statistics XIII	DSE F57	Biochemistry XIII
DSE F14	Statistics XIV	DSE F58	Biochemistry XIV
DSE F15	Statistics XV	DSE F59	Biochemistry XV
DSE F16	Statistics XVI	DSE F60	Biochemistry XVI
DSE F17	Electronics XIII	DSE F61	Psychology XIII
DSE F18	Electronics XIV	DSE F62	Psychology XIV
DSE F19	Electronics XV	DSE F63	Psychology XV
DSE F20	Electronics XVI	DSE F64	Psychology XVI
DSE F21	Computer Science XIII	DSE F65	Food Science & Quality control XIII
DSE F22	Computer Science XIV	DSE F66	Food Science & Quality control XIV
DSE F23	Computer Science XV	DSE F67	Food Science & Quality control XV
DSE F24	Computer Science XVI	DSE F68	Food Science & Quality control XVI
DSE F25	Botany XIII	DSE F69	Plant Protection IX
DSE F26	Botany XIV	DSE F70	Plant Protection X
DSE F27	Botany XV	DSE F71	Plant Protection XI
DSE F28	Botany XVI	DSE F72	Plant Protection XII
DSE F29	Zoology XIII	DSE F73	Fisheries IX
DSE F30	Zoology XIV	DSE F74	Fisheries X
DSE F31	Zoology XV	DSE F75	Fisheries XI

DSE F32	Zoology XVI	DSE F76	Fisheries XII
DSE F33	Biotechnology (Opt) XIII	DSE F77	Astrophysics XIII
DSE F34	Biotechnology (Opt) XIV	DSE F78	Astrophysics XIV
DSE F35	Biotechnology (Opt) XV	DSE F79	Astrophysics XV
DSE F36	Biotechnology (Opt) XVI	DSE F80	Astrophysics XVI
DSE F37	Geography XIII	DSE F81	Nanotechnology (Opt) XIII
DSE F38	Geography XIV	DSE F82	Nanotechnology (Opt) XIV
DSE F39	Geography XV	DSE F83	Nanotechnology (Opt) XV
DSE F40	Geography XVI	DSE F84	Nanotechnology (Opt) XVI
DSE F41	Geology XIII		
DSE F42	Geology XIV		
DSE F43	Geology XV		
DSE F44	Geology XVI	AECC F	English IV

B.Sc. Computer Science (Optional) Part III
Semester-V&VI
CBCS Syllabus to be implemented from June 2020 Onwards

1. **TITLE:** Computer Science
2. **YEAR OF IMPLEMENTATION:** Revised Syllabus will be implemented from June 2020 onwards.
3. **DURATION:** B.Sc. in Computer Science Part- III The duration of course shall be one year and two semesters.
4. **PATTERN:** Pattern of examination will be semester.
5. **STRUCTURE OF COURSE:**

STRUCTURE OF COURSE

Sr. No.	Paper	Name of Paper	Marks
Computer Science (Semester V)			
1	DSE-21E	Core Java	40 (Theory)
2	DSE-22E	C# Programming	40 (Theory)
3	DSE-23E	Linux part- I	40 (Theory)
4	DSE-24E	Python Part -I	40 (Theory)
Computer Science (Semester VI)			
5	DSE-21F	Advance Java	40 (Theory)
6	DSE-22F	ASP .NET	40 (Theory)
7	DSE-23F	Linux Part- II	40 (Theory)
8	DSE-24F	Python Part -II	40 (Theory)
Practical (Annual)			
5	Practical Paper-IV	Computer Science Practical Paper Based on DSE-21E,22E,21F and 22F	50 (Practical)
6	Practical Paper-V	Computer Science Practical Paper Based on DSE-23E,24E,23F and 24F	50 (Practical)
7	Practical Paper VI	Software Project	100

**6. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS
(FOR REVISED SYLLABUS)**

Paper No.	Title of old paper	Paper No.	Title of New paper
SEMESTER V			
IX	Computer Networking	IX	More chances be given
X	Visual Programming using C#	X	C# Programming
XI	Linux Operating System	XI	Linux- I
XII	MY SQL and PHP	XII	More chances be given
SEMESTER – VI			
XIII	Network Technology and Windows Server 2008	XIII	More chances be given
XIV	Java Programming	XIV	Core Java
XV	Advanced Linux OS	XV	Linux- II
XVI	E-commerce	XVI	More chances be given
PRACTICAL (ANNUAL PATTERN)			
	Computer Science Practical Paper-IV,V and VI		More chances be given

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-21E
Paper IX
Course Title: Core Java
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 40

Objectives:

The objective of this course is to teach the learner how to use Object Oriented paradigm to develop code and understand the concepts of Core Java and to cover-up with the pre-requisites of Core java.

Course Outcomes:

- 1.Object oriented programming concepts using Java.
- 2.Knowledge of input, its processing and getting suitable output.
- 3.Understand, design, implement and evaluate classes and applets
4. Understand concept of Multiprogramming and Exception Handling

Unit	Content	Hours Allotted
I	Introduction to java <ul style="list-style-type: none"> • History of java • Features of Java • Comparison between C++ and java • Java Virtual Machine(JVM) • Tokens • Java Keywords • Data Types-integer(byte,short,int ,long),floating point(float, double),char, boolean • Operators-arithmetic,relational,logical,unary,ternary,bitwise • Branching and looping statement • Typecasting-Implicit and Explicit • Command line arguments • Writing simple java program • Compiling and executing Java program 	12
II	Object Oriented Programming using Java <ul style="list-style-type: none"> • Introduction- Class, Object and method • staticKeywords,Constructors,and destructor • super and thisKey Word • Encapsulation and Abstraction • Inheritance- Definition and its types- single,multilevel,hierarchical • Polymorphism-Definition and concepts of overloading and overriding • Difference between Overloading and overriding • Abstract Classes and Interfaces • String- String and String Buffer class • Defining package • System Packages –java, lang, awt, javax, swing, net, io, util. 	12

	<ul style="list-style-type: none"> • user defined packages-creating and accessing the package 	
III	Multithreading, Exception Handling and Applets <ul style="list-style-type: none"> • Creating threads, extending a thread class- declaring the class, run() method • Stopping and blocking threads • Life cycle of thread • Using thread method • Thread priority • Definition of exception • Syntax of exception handling code • Multiple catch statement • Using finally statement • Applets Definition • Building applet code • Applet life cycle • Adding applet code to HTML file • Introduction to Abstract Window Toolkit (AWT) 	12

Reference Books:

1. Programming with JAVA, A Primer by E Balaguruswamy
2. Herbert Schildt, Java2: The Complete Reference, Tata McGraw-Hill
3. Java Programming- Rajendra Salokhe (Aruta Pub)
4. *The Java Tutorials*: <http://docs.oracle.com/javase/tutorial/>
5. The Java Tutorials of Sun Microsystems Inc

Practical Based on DSE 21E(Lab course IV)

1. Java programs based on branching and looping statements.
2. Java programs based Type Casting
3. Java programs based on command line arguments
4. Java programs based on constructors
5. Java programs based on inheritance
6. Java programs based on method overloading
7. Java programs based on method overriding.
8. Java programs based on interfaces
9. Java programs based on packages
10. Java programs based on multithreading
11. Java programs based on exception handling
12. Java programs with applets.

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-22E
Computer Paper X
Course Title: C# Programming
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks:40

Course Outcomes:

This course will cover the practical aspects C#.NET framework. The goal of this course is to introduce the students to the basics of OOPs and windows application program.

Unit	Content	Hours Allotted
I	Introduction to .Net <ul style="list-style-type: none"> • .NET Framework Architecture • An Overview • Components of .NET: CLR ,CLS • Microsoft Intermediate Language ("MSIL" or "IL"), • The Common Type System (CTS), Namespaces, • .NET Framework Base Classes, DLL and Exe. • An Overview of C# • History and Features of C#. • Data Types, Value and Reference Types, Boxing and Unboxing • Properties : Set and Get • C# - Flow Control: Branching, Switching and Looping • Structure 	12
II	Object oriented Concepts <ul style="list-style-type: none"> • C# Program compilation and execution • Command Line Arguments • Programming Examples using Console application , • Classes and Objects • Inheritance • Polymorphism • Abstract Classes • Sealed Classes • Partial Classes • Exception Handling 	12
III	Introduction to Windows Form Application Using C# <ul style="list-style-type: none"> • IDE – (Integrated Development Environment) • Form Controls: Label, Button, Textbox, Checkbox, RadioButton, Timer, calendar, ListBox, Image and overview of remaining all common controls its properties and events 	12

References:

1. C# 4.0 The Complete Reference Schildt Mc Graw Hill
2. Inside C# - By Tom Archer, Andrew Whitechapel (Microsoft Pub)
3. Programming in C#- E Balagurusamy

Practical Based on DSE-E22

1. Write a C# program that print hello word using command line argument.
2. Write a console application program to demonstrate switching, looping, branching statement.
3. Write a console application for swapping of 2 numbers using Pass by value.
4. Write a console application for swapping of 2 numbers using Pass by Reference.
5. Write a C# program that uses explicit keyword.
6. Write a C# program that uses implicit keyword.
7. Write a C# program to implement out parameter.
8. Write C# program to display factorial of number.
9. Write C# program to display prime factors of entered number.
10. Write C# program check entered number is even or odd.
11. Write C# program to demonstrate array.
12. Create DLL and implement in another console application.
13. Write C# program to demonstrate static and non-static methods.
14. Write C# program to demonstrate Inheritance.
15. Write C# program to demonstrate Interface.
16. Write C# program to demonstrate abstract class.

B.Sc. Part –III Computer Science Optional (Semester– V)
CourseCode: DSE-23E
Computer Paper XI
Course Title: LINUX Part I
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks:40

Course Outcomes

1. Upon completion of this course, students should have a good working knowledge of Linux.
2. Allowing them to easily use any Linux distribution.
3. This course shall help student to learn advanced subjects in computer science practically.

Unit	Contents	Hours Allotted
I	Introduction to Linux <ul style="list-style-type: none"> • History of Linux • Architecture of Linux • Operating System Services • Shell • Types of Shell • Kernel • Login, Logout • General Purpose Utilities (banner, cal, date, calendar, who, tty, uname, password, lock, echo, tput, bc, clear, script, wc, head, tail, echo, test, expr) 	9
II	File System, System Calls and Process <ul style="list-style-type: none"> • Basic file system management • Files Types, Boot block, Super block, Inode table • Storage and Accessibility of files • Finding Information of commands • File and Directory Commands • File and Directory Manipulation commands • File ownership and permission • Open, Read, Write, Close • Mounting and Un-mounting File System • Process States and Transitions • Process Creation • Signal • Process Termination • Awaiting Process Termination • Invoking Other Programs • Process Management(ps, kill, background processing, no hang up, SPOOL, job scheduling using at command) 	18
III	Editors and Shell Scripting <ul style="list-style-type: none"> • Types of editors • Modes of Operation 	9

	<ul style="list-style-type: none"> • Editing Text Files • Block Commands • Set Commands • Command Line Options • Choosing a Shell • Invoking the Shell Variables • Getting input from keyboard • Special Variables • Control Statement- Conditional • Iterative Statements • Regular expression 	
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Reference Books

1. Linux Commands- Instant Reference by Bryan PF affenberge
2. The Design of the Unix Operating System- Bach
3. Unix Shell Programming- Yashwant Kanetkar
4. Unix Concepts and Application – Sumitabhadas
5. Linux : The Complete Reference- Richard Peterson

Practical Based on DSE-23E

1. Demonstration of General Purpose Utilities.
2. Write a shell script using if statements to check file exists or not.
3. Write a shell script to copy a file.
4. Write a shell script to check the given number is odd or even.
5. Write a shell script to check file permission.
6. Write a shell script to calculate the grade of student.
7. Write a shell script to find out given word contains vowel and also the entered vowel is small case or capital.
8. Write a shell script to display given year is leap year or not.
9. Write a shell script to greet message according to time.
10. Write a shell script to print the Fibonacci series.
11. Write a shell script to print the numbers between 1 to10.
12. Write a shell script to read name, sex and marital status and display the same.

B.Sc. Part –III Computer Science Optional (Semester– V)
Course Code: DSE-24E
Computer Paper XII
Course Title: Python Part I
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks: 40

Objective

Master the fundamentals of writing Python scripts

Course Outcomes:

1. To understand why Python is a useful scripting language for developers
2. To learn how to write loops and decision statements in Python
3. To learn how to use lists, tuples, and dictionaries in Python programs

Unit	Contents	Hours Allotted
I	Introduction <ul style="list-style-type: none"> • History • Features • Setting up path • Working with Python • Basic Syntax • Keywords • Variable and Data Types • Operator • Input , output functions Conditional Statements & Looping <ul style="list-style-type: none"> • If • If- else • Nested if-else • For • While • Nested loops 	12
II	Control Statements <ul style="list-style-type: none"> • Break • Continue • Pass String Manipulation <ul style="list-style-type: none"> • Accessing Strings • Basic Operations • String slices • Function and Methods Lists <ul style="list-style-type: none"> • Introduction • Accessing list • Operations • Working with lists • Function and Methods 	12

III	<p>Tuple</p> <ul style="list-style-type: none"> • Introduction • Accessing tuples • Operations • Working • Functions and Methods <p>Dictionaries</p> <ul style="list-style-type: none"> • Introduction • Accessing values in dictionaries • Working with dictionaries • Properties • Functions 	12
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Reference Books

1. Practical Programming: An introduction to Computer Science Using Python, second edition, Paul Gries, Jennifer Campbell, Jason Montojo, The Pragmatic Bookshelf.
2. Python for Informatics: Exploring Information, Charles Severance
3. Learning Python, Fourth Edition, Mark Lutz, O'Reilly publication
4. Introduction to Python for Computational Science and Engineering (A beginner's guide), Hans Fangohr
5. John V Guttag, "Introduction to Computation and Programming Using Python", Prentice Hall of India
6. R. Nageswara Rao, "Core Python Programming", Dreamtech

Prctical Based on DSE-24E

1. Python program to add two numbers
2. Python program for factorial of a number
3. Python program for simple interest
4. Python program to check if a string is palindrome or not
5. Python program to reverse words in a given string in python
6. Python program to find out ways to remove i'th character from string in python
7. Python program to check if a substring is present in a given string
8. Python program to interchange first and last elements in a list
9. Python program to swap two elements in a list
10. Python program to find out different ways to clear a list in Python
11. Python program to reversing a List
12. Python Program for Linear Search
13. Python Program for Insertion Sort
14. Python Program to demonstrated use of dictionaries by Key or Value
15. Python Program to remove a key from dictionary

B.Sc. Part –III Computer Science Optional (Semester– VI)**Course Code: DSE-21F****Paper XIII****Course Title: Advanced Java****Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)****Teaching Scheme: Theory – 03 Lect. / Week****Credits: 02****Total Marks: 40****Objectives:**

Explore advanced topic of Java programming for solving problems.

Course Outcomes:

- 1) The student will be able to develop distributed business applications, develop web pages Using advanced server-side programming through servlets and Java server pages.
- 2) Demonstrate approaches for performance and effective coding
- 3) To learn database programming using Java
- 4) To study web development concept using Servlet and JSP

Unit	Content	Hours Allotted
I	Swing and JDBC <ul style="list-style-type: none">• Concept of swing• MVC architecture• Component of swing: JFrame, JComponent, JLabel, JTextfields, JCheckbox, JPanel, JRadiobuttons, JTabbed Pane, JButton, JTree, JTable, JMenu• Difference between AWT and Swing• Introduction Java Data Base Connectivity (JDBC)• JDBC Connection Statements, ResultSet.• simple program• Executing commands and SQL queries• Updatable ResultSet• Forward Only ResultSet• Scrollable ResultSet• PreparedStatement• Connection Modes, SavePoint.	12
II	Servlet <ul style="list-style-type: none">• Introduction to Servlet• Hierarchy of Servlet• Life cycle of servlet• ServletConfig• ServletContext• Servlet API• packages- javax.servlet and javax.servlet.http• Servlet Communication• Handling get and post request (HTTP)• Handling a data from HTML to servlet• Retrieving a data from database to servlet	12

	<ul style="list-style-type: none"> • Session tracking – User Authorization, URL rewriting, Hidden form fields 	
III	Java Server Page (JSP) <ul style="list-style-type: none"> • Concept of JSP • Life cycle of JSP • JSP v/s Servlet • Components of JSP: Directives, Tags • Scripting elements – Declarations, Expressions, Scriptlets, Comments • Implicit objects of JSP • Connecting to database • Simple application using JSP 	12

Reference Books

1. Programming with JAVA, A Primer by E Balaguruswamy
2. Herbert Schildt, Java2: The Complete Reference, Tata McGraw-Hill
3. Java Programming- Rajendra Salokhe (Aruta Pub)
4. Java 2 Black Book –(DreamTech)
5. *The Java Tutorials*: <http://docs.oracle.com/javase/tutorial/>)
6. The Java Tutorials of Sun Microsystems Inc

Practical Based on DSE-21F

Practical Program List

1. Program on Swing
2. Simple program using servlet
3. Simple program using JSP
4. Program on Database Connection.
5. Develop a java application to store image in a database as well as retrieve image from database
6. Create EMP table in Database and perform insert ,update ,and delete operation onEMP table using JSP.

**B.Sc. Part –III Computer Science Optional (Semester–
VI) CourseCode:DSE-22F**

Computer Paper XIV

Course Title: ASP .NET

Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits: 02

Total Marks:40

Course Outcomes:

This course will cover the practical aspects of multi-tier web based application development using the .NET framework. The goal of this course is to introduce the students to the basics of distributed Web application development.

Unit	Content	Hours Allotted
I	Introduction to ASP.Net: <ul style="list-style-type: none">• Web browser, web server• HTTP request response structure• HTML form elements• GET/POST method• Client side and Server side programming.• Web form life cycle, page events,• Visual studio IDE.• Server Controls: Textbox, Listcontrols, FileUpload, Linkbutton, Imagemap, Image, Imagebutton, Calender, Literal control, Radiobutton, Checkbox,• Validation Controls• Navigation controls• Master Page.	14
II	Asp.Net State Management <ul style="list-style-type: none">• Cross page postback property of button,• Response.Redirect,• Server.transfer, Response.Write,• Hiddenfield control,• View State, Cookies, Session, Application• Global.asax	10

	<ul style="list-style-type: none"> • Caching 	
III	Database and ADO.Net <ul style="list-style-type: none"> • Sql Server Database. • Data controls <ul style="list-style-type: none"> ○ Gridview ○ Listview ○ FormView ○ DetailsView, ○ Repeater • Introduction to ADO.Net <ul style="list-style-type: none"> ○ ADO.NET Architecture- Connection, command, data reader, data adapter, data set ○ Understanding connected layer of ADO.NET and disconnected layer of ADO.NET • Basics of Crystal reports 	12

Reference Books:

- Beginning ASP.NET 4.5 in C# and VB, Wrox, 2012, ISBN-10: 1118311809
- Beginning ASP.NET 4.5 in C#, Apress, 2012, ISBN-10: 1430242515
- Pro C# with .NET 3.0, Andrew Troelsen, Apress, 2007, ISBN 978-1-59059-823-8

Practical Experiments based on DSE-F22:

1. Write an Asp.Net Program to print a Message on web form.
2. Write an Asp.Net Program to Create Simple Web Application using two or more web form.
3. Write an Asp.Net Program to set a link for new Page.
4. Write an Asp.Net Program to demonstrate different common Control.
5. Write an Asp.Net program using while or for loop to print sum of first 100 ODD and Even Numbers.
6. Write an Asp.Net Program to add the value of Text Box in to Dropdown List and List box Controls.
7. Write an Asp.Net Program to Delete Items from Dropdown list and List box.
8. Write an Asp.Net Program to set Image on Image Control according to selection of image name from dropdown list.
9. Write an Asp.Net Program to demonstrate use of Master Page.
10. Program to demonstrate ADO.Net connected architecture.
11. Program to demonstrate ADO.Net disconnected architecture

12. Program to demonstrate client side state management.
13. Program to demonstrate serverside state management.
14. Write an Asp.Net Program to perform Insert and update operation in Database.
15. Write an Asp.Net program to perform Search and Delete operation in Database.
16. Write an Asp.net program to display the records from database using Data Reader Object.

**B.Sc. Part –III Computer Science Optional (Semester–
VI) CourseCode:DSE-23F**

Computer Paper XV

Course Title: Linux Part II

Total Contact Hours: 36 Hrs (45 Lectures of 48 Min.)

Teaching Scheme: Theory – 03 Lect. / Week

Credits:02

Total Marks:40

Course Outcome:

1. This course covers design principles of Linux Operating System Memory management.
2. Structure of File system and virtual file system is also elaborated.
3. This course contains details of shell programming and introduces System administration

Unit	Content	Hours Allotted
I	Memory Management and Advanced vi <ul style="list-style-type: none">• Swapping• Demand Paging• ex Mode- handling Multiple Files• Named Buffer• Numbered Buffers• Entering control characters• Searching for a characters	9
II	Filters and Advanced Shell Programming <ul style="list-style-type: none">• sed and sed options• grep and grep options• Line Addressing• Multiple Instruction(-E and -F)• Context Addressing• Writing Selected Lines to a File• Shell and subshell• Command Line Arguments• Exporting Shell Variables• Arrays• Shell Functions	18
III	Networking Tools <ul style="list-style-type: none">• Introduction to TCP/IP• Network Management Tools- Firewall• The write command• The wall command• cron	9

Reference Books:

1. Linux Commands –Instant Reference by Bryan PF affenberge
2. The design of the Unix Operating System- Bach
3. Unix Shell Programming- Yashwant Kanetkar
4. Unix Concepts and Applications- Sumitabha das
5. Linux : The Complete Reference- Richard Peterson

Practical Based on DSE-23F

1. Write a shell script using grep command to print prime numbers between 1 to 30.
2. Write a shell script to find whether the supplied user working on network or not. If he/she is working then display his/her login time.
3. Write a anawk program to display customer earning report with given format.
4. Write a shell script which accepts a file name as a input. Find out whether it is ordinary file or directory. If a file is available then display all file access permission on screen.
5. Write a shell script which copies files from one directory to another during copy command.
6. Write an awk program to display stock report with given format.
7. Create a data file which contains given format and perform the given operations on that data file using sed.
8. Write a shell script to copy a file using command line argument, source file must be exists and readable and target file must be non existing file name.
9. Write a shell script, which works similar to wc command accept filename as command line argument.
10. Accept any word through command line argument and find out its length.

**B.Sc. Part –III Computer Science Optional (Semester–
VI) CourseCode:DSE-24F
Computer Paper XVI
Course Title: Python Part II
Total Contact Hours: 36 Hrs. (45 Lectures of 48 Min.)
Teaching Scheme: Theory – 03 Lect. / Week**

Credits:02

Total Marks:40

Course Outcomes:

1. To learn how to write functions and pass arguments in Python
2. To learn how to build and package Python modules for reusability
3. To learn how to use exception handling in Python applications for error handling

Unit	Content	Hours Allotted
I	Functions <ul style="list-style-type: none"> • Defining a function • Calling a function • Types of functions • Function Arguments • Anonymous functions • Global and local variables 	12
II	Modules <ul style="list-style-type: none"> • Importing module • Math module • Random module • Packages • Composition Input-Output <ul style="list-style-type: none"> • Printing on screen • Reading data from keyboard • Opening and closing file • Reading and writing files • Functions 	12
III	Exception Handling <ul style="list-style-type: none"> • Exception • Exception Handling • Except clause • Try , finally clause • User Defined Exceptions Object Oriented Programming Concepts <ul style="list-style-type: none"> • Class and object • Attributes • Inheritance • Overloading • Overriding • Data hiding 	12

Reference Books:

1. Practical Programming: An introduction to Computer Science Using Python, second edition, Paul Gries, Jennifer Campbell, Jason Montojo, The Pragmatic Bookshelf.
2. Python for Informatics: Exploring Information, Charles Severance
3. Learning Python, Fourth Edition, Mark Lutz, O'Reilly publication
4. Introduction to Python for Computational Science and Engineering (A beginner's guide), Hans Fangohr
5. John V Guttag. "Introduction to Computation and Programming Using Python", Prentice Hall of India
6. R. Nageswara Rao, "Core Python Programming", Dreamtech

Practical Based on DSE-24F

1. Write a simple Python function to check whether x is even or odd
2. Write a simple Python program to demonstrate default arguments to function
3. Write a simple module (e.g. calc.py) for addition and subtraction
4. Write a program for importing sqrt() and factorial from the module math
5. Write a program to provide the facility to input and display it on the screen
6. Write a program to demonstrate to open and close file
7. Write a Python program to handle simple runtime error
8. Write program to handle multiple errors with one except statement
9. Write a python program to create user-defined exception
10. Write Python code to illustrate clean up (finally) actions
11. Write a program to demonstrate the use of class
12. Write a Python program to demonstrate inheritance
13. Write a Python program to demonstrate overloading
14. Write a Python program to demonstrate overriding

NATURE OF QUESTION PAPER AND SCHEME OF MARKING:

The practical Paper – IV is based on Paper No. IX, X, XIII and XIV.

The practical Paper – V is based on Paper No. XI, XII, XV and XVI.

The practical Paper – VI is of Major Project work done by the student.

NATURE OF PRACTICAL QUESTION PAPER:

1. The practical question paper IV and V for B.Sc.-III(computer science) will be of maximum 50 marks each.
2. The practical paper IV having four questions out of which two questions are based on Paper –IX (Sem.-V) Paper-XIII (Sem.-VI) and two questions are based on Paper X(Sem.V), Paper-XIV (Sem.-VI)
3. The practical paper V having four questions out of which two questions are based on Paper – XI (Sem.-V), Paper XV (Sem.-VI) and two questions are based on Paper-XII(Sem.-V), Paper-XVI (Sem.- VI)
4. The Student has to attempt any TWO questions out of FOUR questions. Each question carries 20 marks.
5. 10 marks are for Viva and certified Journal.
6. The student appearing for the practical examination is expected to write paper work for TWO questions. Paper work is compulsory and it includes problem analysis, Algorithm, source code, output and tracing.
7. It is expected to complete the paper work within 120 minutes. The student has to complete his/her actual practical experiment on machine within 90 minutes. The practical based viva will be of 30 minutes duration.
8. The duration of practical will be 4 hours.
9. Practical Paper VI is Project work of 100 marks.

Practical Paper VI: Project work - 100 marks**Project work Guidelines:**

1. Institute is expected to conduct Industrial visit to any computerized industry and students are supposed to submit the report based on same.
2. Software development project is to be carried out by the candidate in actual consumer environment taking some real life problem.
3. The candidate submit the project work according to norms of software engineering i.e. the project document should contain Introduction, detailed design, sample testing and conclusion(Guidelines and other details are mentioned at **Appendix -1 and 2**)
4. Project will have internal guide to supervise and monitor the progress of the project. The internal guide may assign the project to the student or within the group of student (maximum 2 candidates in group) depending upon the complexity of the problem preferably using MySQL /MSSQL/Oracle as a back end and C#.NET/ASP with C#/PHP/ Java as a front end.
5. There will be online demonstration of project work in the presence of the external examiner and it will be considered for the evaluation.

6. The mark distribution for Practical paper VI will be as follows:

Project documentation	:	30 marks
On-line Presentation	:	20 marks
Project Based Viva-voce	:	30 marks
Industrial Visit Report	:	20 marks
Total Marks	:	100marks

Appendix- 1

Guidelines for Project:

Number of Copies: The student should submit two Hard-bound copies of the Project Report. (one copy for institute and one copy for student)

Acceptance/Rejection of Project Report:

The student must submit an outline of the project report to the college for approval. The college holds the right to accept the project or suggest modifications for resubmission.

Format of the Project Report:

The student must adhere strictly to the following format for the submission of the Project Report.

a. Paper:

The Report shall be typed on white paper, A4 size, for the final submission.

b. Typing:

The typing shall be of standard letter size, 1.5 spaced and on one side only. (Normal text should have Arial Font size 12. Headings have bigger size i.e. up to size 14)

c. Margins:

- The typing must be done in the following margins:
- Left -----1.5 inch, Right ----- 1 inch
- Top ----- 1 inch, Bottom ----- 1 inch

d. Front Cover:

The front cover should contain the following details:

- TOP : The title in block capitals of 6mm to 15mm letters.
- CENTRE: Full name in block capitals of 6mm to 10mm letters.
- BOTTOM: Name of the University, Course, Year of submission -all in block capitals of 6mm to 10mm letters on separate lines with proper spacing and centring.

f. Blank Sheets:

At the beginning and end of the report, two white blank bound papers should be provided, one for the purpose of binding and other to be left blank.

Appendix - 2

- Input Design
- Report Design
- Implementation
- Testing

Standard Project Report Documentation Format

- a) Covering Page
- b) Institute/College certificate
- c) Guide Certificate
- d) Student declaration
- e) Acknowledgement
- f) Index (Chapter Scheme)

1) Introduction to Project

- Introduction
- Existing System
- Need and scope of System
- Organization Profile

2) Proposed System

- Objectives
- Requirement Engineering.
- Requirement Gathering.
- SRS

3) System Diagrams

- DFD
- ERD
- UML(if applicable)

4) System Requirements

- Hardware
- Software

5) System Design

- Database Design
- Input Design
- Output Design

6) User Guideline

- Installation process

7) Source Code

8) Outputs

- Input screens and Reports (with valid Data)

9) Conclusion and Suggestions

- Conclusion and suggestions

- Future enhancement
- Bibliography:

Note: Minimum 5 reports are essential as outputs of the project work done by the student

SHIVAJI UNIVERSITY, KOLHAPUR.



**Accredited by NAAC with 'A⁺⁺' Grade
CHOICE BASED CREDIT SYSTEM**

**Syllabus For
B.Sc. Part-I**

MICROBIOLOGY

(Faculty of Science and Technology)

SEMESTER I AND II

(Syllabus to be implemented from August, 2022 onwards as per NEP 2020)

Shivaji University, Kolhapur

Syllabus For Bachelor of Science Part – I : Microbiology

1. TITLE: Microbiology

2. YEAR OF IMPLEMENTATION: - Syllabus will be implemented from June, 2022 onwards.

3. PREAMBLE:

This syllabus is framed to give sound knowledge with understanding of Microbiology to undergraduate students at second year of three years of B.Sc. degree course.

Students learn Microbiology as a separate subject from B.Sc. II. The goal of the syllabus is to make the study of Microbiology popular, interesting and encouraging to the students for higher studies including research.

The new and updated syllabus is based on a basic and applied approach with vigor and depth. At the same time, precaution is taken to make the syllabus comparable to the syllabi of other universities and the needs of industries and research.

The syllabus is prepared after discussion at length with number of faculty members of the subject and experts from industries and research fields.

The units of the syllabus are well defined, taking into consideration the level and capacity of students.

4. GENERAL OBJECTIVES OF THE COURSE / PAPER :

- 1) To make the students knowledgeable with respect to the subject and its practicable applicability.
- 2) To promote understanding of basic and advanced concepts in Microbiology.
- 3) To expose the students to various emerging areas of Microbiology.
- 4) To prepare students for further studies, helping in their bright career in the subject.
- 5) To expose the students to different processes used in industries and in research field.
- 6) To develop their ability to apply the knowledge of Microbiology in day to day life.
- 7) To prepare the students to accept the challenges in life sciences.
- 8) To develop skills required in various industries, research labs and in the field of human health.

5. DURATION : The course shall be a full time course.

6. PATTERN : Pattern of Examination will be Semester.

7. MEDIUM OF INSTRUCTION : The medium of instruction shall be English.

Learning Outcomes:

A candidate who wish to graduate in B.Sc. (Microbiology Course) needs to have acquired/developed following competencies:

1. Acquired knowledge and understanding of the microbiology concepts as applicable to diverse areas such as medical, industrial, environment, genetics, agriculture, food and others.
2. Demonstrate key practical skills/competencies in working with microbes for study and use in the laboratory as well as outside, including the use of good microbiological practices.
3. Competent enough to use microbiology knowledge and skills to analyze problems involving microbes, articulate these with peers/ team members/ other stake holders, and undertake remedial measures/studies etc.
4. Developed a broader perspective of the discipline of Microbiology to enable him to identify challenging societal problems and plan his professional career to develop innovative solutions for such problems.

Structure of Bachelor of Science Part-I with Microbiology as principle Subject

SEM	Discipline specific Core Course (DSC) (L+T+P) (Credits)	Discipline specific Elective Course (DSE)/ Open Elective (OE) (L+T+P) (Credits)	Ability Enhancement Compulsory Courses (AECC)/ Languages (L+T+P) (Credits)	Skill Enhancement Courses (SEC)		Total Credits
				Skill Based Courses (L+T+P) (Credits) (Non-CGPA)	Value Based Courses (L+T+P) (Credits) (Non-CGPA)	
I	Microbiology C1 (4+2) Chemistry C1 (4+2) Zoology C1 (4+2)	Botany C1 / Biotechnology C1 / Biochemistry C1 (4+2)	AECC-1 (2) (Non-CGPA) English for communication	SEC-1 (2) Multidisciplinary	NCC / NSS / Sports / Cultural (1) / SSC (2)	24
II	Microbiology C2 (4+2) Chemistry C2 (4+2) Zoology C2 (4+2)	Botany C2 / Biotechnology C2 / Biochemistry C2 (4+2)	AECC-2 (2) (Non-CGPA) English for communication	SEC-2 (2) Multidisciplinary	NCC / NSS / Sports / Cultural (1) / SSC (2)	24
Option 1: Exit with Certificate Course in Science (Microbiology) (with the completion of courses equal to minimum of 48 credits)						

SEMESTER- I
Paper – I (DSC 25 A)

Introduction to Microbiology

Credits - 2; Total hours – 30

Learning Objectives:

1. To develop a good knowledge of the development of the discipline of Microbiology and the contributions made by prominent scientists in this field.
2. To develop a very good understanding of the characteristics of different types of microorganisms, methods to organize/classify these into and basic tools to study these in the laboratory.
3. To explain the useful and harmful activities of the microorganisms and scope of different branches of Microbiology.
4. To describe characteristics of bacterial cells, cell organelles and various appendages like capsules, flagella or pili.

Credit I	History and mile stones in Microbiology	No. of hours: 15
	<p>A. History of Microbiology</p> <ol style="list-style-type: none"> 1. Spontaneous generation vs. biogenesis. 2. Contributions of - a. Antony von Leeuwenhoek, b. Edward Jenner, c. Louis Pasteur, d. Robert Koch, e. Ivanowsky, f. Joseph Lister, g. Alexander Fleming, h. Martinus W. Beijerinck and i. Sergei N. Winogradsky. <p>B. Introduction to types of Microorganisms:</p> <ol style="list-style-type: none"> 1. General characteristics of different groups: <ol style="list-style-type: none"> a. Acellular microorganisms-Viruses, Viroids and Prions b. Cellular microorganisms- Bacteria, Algae, Fungi and Protozoa - with emphasis on distribution and occurrence, morphology, mode of reproduction and economic importance. c. Ultra-structure of Prokaryotic and eukaryotic cell, difference between prokaryotic and eukaryotic microorganisms. <p>C. Bacterial Nomenclature and Classification:</p>	

	<ul style="list-style-type: none"> a. Taxonomic ranks b. Common or Vernacular name c. Scientific or International name d. Whittaker's five kingdom and Carl Woese's three kingdom classification systems. <p>D. An overview of Scope of Microbiology:</p> <p>1. Beneficial and harmful activities of microorganisms.</p> <p>Introduction to applied branches of Microbiology:</p> <ul style="list-style-type: none"> a. Air, b. Water, c. Sewage, d. Soil, e. Dairy, f. Food, g. Medical, h. Industrial, i. Biotechnology and j. Geomicrobiology. 	
Credit II	Bacterial Cell Structure and Functions	No. of hours: 15
	<p>A. Cell size, shape and arrangement</p> <p>B. Cytology of Bacteria:</p> <ul style="list-style-type: none"> i. Cell wall: Composition and detailed structure of Gram-positive and Gram-negative bacterial cell walls ii. Cell Membrane: Structure, function & chemical composition of bacterial cell membranes. iii. Structure and functions of Capsule and slime layer. iv. Structure and functions of Flagella v. Structure and functions of Pilli. <p>C. Structure and functions of Cytoplasmic Components:</p> <ul style="list-style-type: none"> a. Ribosomes b. Mesosomes c. Inclusion bodies d. Nucleoid e. Chromosome f. Plasmids g. Endospore: Structure, stages of sporulation h. Reserve food materials - Nitrogenous and non-nitrogenous 	

Paper – II (DSC 26 A)
Basic Techniques in Microbiology
Credit- 2; Total hours - 30

Learning Objectives:

1. To study the staining techniques for the observation of bacteria and bacterial cell components
2. To study the working principle, handling and use of microscopes for the study of microorganisms
3. To understand the principles of sterilization and disinfection of culture media, glassware and plastic ware and other objects to be used for microbiological work.

Credit I	Staining Techniques and Microscopy	No. of hours: 15
	<p>A. Stains and staining procedures:</p> <ol style="list-style-type: none"> 1. Definition and Classification of stains - Acidic, Basic and Neutral 2. Principles, Procedure, Mechanism and applications of staining procedures <ol style="list-style-type: none"> i. Simple staining ii. Negative staining iii. Differential staining: Gram staining and Acid fast staining 3. Special staining methods <ol style="list-style-type: none"> i. Cell wall (Chance's method) ii. Capsule (Maneval's method) iii. Volutine granule (Albert's method) <p>B. General Principles of Microscopy:</p> <ol style="list-style-type: none"> a. Types of microscopes: light and electron microscopes b. Light microscopy: Parts, Image formation, Magnification, Numerical aperture (uses of oil immersion objective), Resolving power and Working distance. c. Ray diagram, special features, applications and comparative study of: <ol style="list-style-type: none"> i. Compound Microscope ii. Electron Microscope 	
Credit II	Control of Microorganisms	No. of hours:

		15
	<p>A. Definitions of - Sterilization, Disinfection, Antiseptic, Germicide, Microbiostasis, Antisepsis and Sanitization.</p> <p>B. Physical agents for control of microorganisms:</p> <ul style="list-style-type: none"> i. Temperature – a) Dry heat b) Moist heat ii. Desiccation iii. Osmotic pressure iv. Radiations - U.V. Ray, Gamma rays, v. Filtration – Asbestos and Membrane filter <p>C. Chemical Agents for control of microorganisms: Mode of action, application and advantages of -</p> <ul style="list-style-type: none"> i. Phenol and Phenolic compounds ii. Alcohols (Ethyl alcohol) iii. Halogen compounds (chlorine and iodine) iv. Heavy metals (Cu and Hg) v. Gaseous Agents – Ethylene oxide, Beta-propiolactone and formaldehyde 	

SEMESTER- II

Paper - III (DSC 25 B): Bacteriology

(Credits - 2; Total hours - 30)

Learning Objectives:

1. To describe the nutritional requirements of bacteria and other microbes which grow under extreme environments.
2. To understand the basic laboratory experiments to isolate, cultivate and differentiate bacteria
3. To study the preservation of bacteria in the laboratory

Credit I	Microbial Nutrition and Culture Media	No. of hours: 15
	<p>A. Nutritional requirements of microorganisms:</p> <ol style="list-style-type: none">a. Waterb. Micronutrientsc. Macronutrientsd. Carbone. Energy sourcef. Oxygeng. Hydrogenh. Nitrogeni. Sulphurj. Phosphorousk. Growth factors – auxotroph, prototroph and fastidious organisms. <p>B. Nutritional types of microorganism based on carbon and energysources:</p> <ol style="list-style-type: none">a. Autotrophsb. Heterotrophsc. Phototrophsd. Chemotrophse. Photoautotrophsf. Chemoautorphosg. Photoheterotrophsh. Chemoheterotrophs <p>C. Types of Culture Media:</p>	

	<ul style="list-style-type: none"> a. Components of media b. Natural and Synthetic media c. Chemically defined media d. Complex media, Selective e. Differential f. Enriched g. Enrichment media. <p>D. Cultivation of microorganisms:</p> <ul style="list-style-type: none"> a. Use of culture media for cultivation b. Conditions required for growth of the microorganisms. 	
Credit II	Isolation, Cultivation and Preservation of Microorganisms.	No. of hours: 15
	<p>A. Isolation of Microorganisms from natural habitats:</p> <ul style="list-style-type: none"> a. Pure culture techniques – Streak plate, Spread plate, Pour Plate and micromanipulator b. Isolation and cultivation of anaerobic organisms by using media components and by exclusion of air/O₂ <p>B. Preservation of microbial cultures:</p> <ul style="list-style-type: none"> a. Sub culturing b. Overlaying of cultures with mineral oils c. Storage at low temperature d. Lyophilisation <p>C. Systematic study of pure cultures:</p> <ul style="list-style-type: none"> a. Morphological characteristics. b. Cultural characteristics: <ul style="list-style-type: none"> i. Colony characteristics on solid media ii. Growth in liquid media iii. Growth on agar slants <p>D. Biochemical Characteristics –</p> <ul style="list-style-type: none"> a. Sugar fermentation b. Production of metabolites - H₂S gas c. Production of enzymes - Amylase, Caseinase and Catalase. 	

Paper - IV (DSC 26 B): Microbial Biochemistry

(Credits - 2; Total hours - 30)

Learning Objectives:

1. To develop a very good understanding of various biomolecules which are required for development and functioning of a bacterial cell.
2. To develop the knowledge of how the carbohydrates make the structural and functional components such as energy generation and as storage food molecules for the bacterial cells
3. To make well conversant about multifarious structures and functions of proteins, enzymes, lipids and nucleic acids.
4. To differentiate the concepts of aerobic and anaerobic respiration and how these are manifested in the form of different metabolic pathways in microorganisms.

Credit I	Biomolecules	No. of hours: 15
	<p>A. Proteins:</p> <ol style="list-style-type: none">1. General structure of amino acids, peptide bond.2. Types of amino acids based on R group –<ol style="list-style-type: none">a) Nonpolar, aliphatic amino acids.b) Aromatic amino acids.c) Polar, Uncharged amino acids.d) Positively charged (basic) amino acidse) Negatively charged (acidic) amino acids.3. Peptides - properties4. Structural levels of proteins: primary, secondary, tertiary and quaternary. <p>B. Carbohydrates: Definition, classification and brief account of-</p> <ol style="list-style-type: none">a. Monosaccharides: Classification based on aldehyde and ketone groups, structure of ribose, deoxyribose, glucose, galactose and fructose.b. Disaccharides: Glycosidic bond, structure of lactose and sucrose.c. Polysaccharides: Structure and biological role of starch, glycogen and cellulose.	

	<p>C. Lipids:</p> <ol style="list-style-type: none"> Simple lipids – Fats and oils, waxes. Compound lipids – Phospholipid, Glycolipids Derived lipids – Cholesterol <p>D. Enzymes:</p> <ol style="list-style-type: none"> Definition Structure- Concept of apoenzyme, coenzyme, cofactor and active site. Types- Extracellular, Intracellular, Constitutive and Inducible. Features of enzyme - substrate reaction. <p>E. Nucleic Acids:</p> <ol style="list-style-type: none"> DNA – structure and composition (Watson and Crick Model) RNA – Types (mRNA, tRNA, rRNA), structure and functions. 	
Credit II	Microbial Metabolism	No. of hours: 15
	<p>A. Concept of Catabolism and anabolism with examples</p> <p>B. Fundamental principles of energetics-</p> <ol style="list-style-type: none"> Exergonic and endergonic reactions, High energy compounds. <p>C. Modes of ATP generation in bacteria by:</p> <ol style="list-style-type: none"> Fermentation Respiration Photosynthesis <p>D. Biochemical Mechanisms of ATP generation:</p> <ol style="list-style-type: none"> Substrate level phosphorylation. Oxidative phosphorylation - Respiration electron transport chain, aerobic and anaerobic respiration. Bacterial Photophosphorylation – Cyclic and Non-cyclic. <p>E. Catabolism of glucose – EMP, TCA cycle (schematic presentation and significance).</p>	

PRACTICAL COURSE

Paper I &II: Introduction to Microbiology and Basic Techniques in Microbiology

Learning Objectives:

1. To understand the basic techniques in Microbiology laboratory
2. To study the working principle, handling and use of compound microscope for the study of microorganisms
3. To study the simple and special staining techniques for the observation of bacteria and bacterial cell components
4. To understand the working principles and applications various equipment's in Microbiology laboratory
5. To study the preparation, sterilization and use of various culture media.

Credit I	Basic Techniques	No. of hours: 15
	<ol style="list-style-type: none">1. Preparations of-<ol style="list-style-type: none">a. Stains (0.5% basic fuchsin & 0.5% crystal violet)b. Buffer (Phosphate buffer of pH 7)c. Reagents (1 N and 1M solutions of HCL and NaOH)d. Physiological saline.2. Biosafety-<ol style="list-style-type: none">a. Aseptic techniquesb. Table disinfectionc. Hand washd. Use of apronse. Proper disposal of used materialf. Cleaning and sterilization of glassware3. Study of parts of light compound microscope, its use and care.4. Staining Techniques -<ol style="list-style-type: none">a. Monochrome stainingb. Negative stainingc. Gram's stainingd. Cell wall staining (Chance's method),e. Capsule staining (Maneval's method),f. Volutine granule staining (Albert' s method)	

	<p>5. Motility by Hanging drop method.</p> <p>6. Study of the principle and applications of instruments –</p> <ul style="list-style-type: none"> a. Biological safety cabinets – Laminar Air Flow Device b. Autoclave c. Incubator d. Hot air oven e. Colorimeter, f. Colony counter 	
	Preparation of Culture Media	No. of hours: 15
	<p>1. Preparation of culture media and their sterilization - agar plates, butts and slants</p> <p>2. Simple media:</p> <ul style="list-style-type: none"> a. Peptone water – 1% & 2 % b. Nutrient broth c. Nutrient agar <p>3. Biochemical test media:</p> <ul style="list-style-type: none"> a. Glucose phosphate broth b. Koser's citrate broth c. Milk agar d. Starch agar <p>4. Selective media - Sabouraud's agar</p> <p>5. Selective & Differential Media -MacConkey's agar.</p> <p>6. Sterilization of culture medium using autoclave and assessment for sterility.</p> <p>7. Sterilization of glassware using hot air oven and assessment for sterility</p>	

Paper III & IV: Bacteriology and Microbial Biochemistry

Learning Objectives:

1. To understand the basic laboratory experiments to isolate and cultivate
2. To study various biochemical tests used to differentiate bacteria

Credit II	Study of Bacteria		No. of hours: 15
	<ol style="list-style-type: none">1. Demonstration of presence of micro flora in / on –<ol style="list-style-type: none">a. Air by solid impaction technique on nutrient agar platesb. Water by direct cultivation methodc. Hand, nails, teeth and skin (swabbing) by direct cultivation methods.2. Isolation of pure cultures of bacteria by four quadrant streaking method and study of Colony characteristics, Gram staining and motility of –<ol style="list-style-type: none">a. <i>Escherichia coli</i>b. <i>Bacillus species</i>c. <i>Staphylococcus aureus</i>3. Enumeration of bacteria from water and milk by SPC method.		
	Biochemical Tests		No. of hours: 15
	<ol style="list-style-type: none">a. Indole testb. Methyl red testc. Voges Proskauer's testd. Citrate Utilization teste. H₂S production testf. Sugar fermentation - glucose and lactoseg. Enzyme production -<ol style="list-style-type: none">i. Amylaseii. Catalaseiii. Caseinase		

Books recommended for Theory

- 1) Microbiology by Pelczar, M.J.Jr., Chan E.C.S., Krieger, N.R. 5th edition, 1986 (McGraw Hills Publication).
- 2) Fundamental Principles of bacteriology by A. J. Salle, Tata McGraw Hill.
- 3) Fundamentals of Microbiology by Frobisher, Hindsdill, Crabtree, Good Heart, W.B. Saunders Company, 7th edition.
- 4) Medical Microbiology Vol. I and II by Cruick Shank R., Duguid J.P., Marmion B.P., Swain R.H.A., XIIth edition, Churchill Livingston, New York.
- 5) A textbook of Microbiology by Ananthnarayan – Orient Longman, Bombay
- 6) General Microbiology by Stanier R. Y. Vth edition, McMillan, London.
- 7) General Microbiology Vol I and II by Powar and Dagainawala, Himalaya Publications.
- 8) Medical Bacteriology by Dey and Dey – Allied Agency, Calcutta.
- 9) Food Microbiology by W. C. Frazier.
- 10) Basic Experimental Microbiology by Ronal M. Atlas, Alfred E. Brown, Kenneth W. Dobra, Wonas Miller (1986) Pren-tice Hall.
- 11) General Microbiology by Robert F. Boyd (1984), Times, Mirror/Mosby College.
- 12) A Biologics guide to principles, techniques of Practical Biochemistry by K. Wilson and K. H. Goulding, Edward Arnold Publication.
- 13) Introduction to Practical Biochemistry by D. Plummer, J. Willey and Sons.
- 14) Microbiology by Prescott, Herley and Klein, IInd edition.
- 15) Bacteriological Techniques by F. K. Baker
- 16) Introduction to Microbial Techniques by Gunasekaran.
- 17) Biochemical methods by Sadasivam& Manickam
- 18) Elementary Microbiology Vol. I by Dr. H.A. Modi, Akta Prakashan, Nadiad, Gujrat.
- 19) Principles of Biochemistry by Nelson and Cox (Lehninger) – Fifth edition.

Books recommended for Practical

- 1) Medical Microbiology by Cruickshank Vol. II.
- 2) Stains and Staining procedures by Desai and Desai.
- 3) Introduction to Practical Biochemistry by D. Plummer, J Wiley and Sons.
- 4) Bacteriological techniques by F. J. Baker.
- 5) Introduction to Microbial techniques by Gunasekaran.
- 6) Biochemical methods by Sadasivam and D. Manickam.
- 7) Laboratory methods in Biochemistry by J. Jayaraman.
- 8) Experimental Microbiology by Patel & Patel

List of Minimum Equipment's

- 1) Hot air oven – 1
- 2) Incubator - 1
- 3) Autoclave - 1
- 4) Refrigerator – 1
- 5) Medical microscopes - 10 nos. for one batch
- 6) Chemical balance - 2
- 7) pH meter - 1
- 8) Seitz filter –1
- 9) Centrifuge - 1
- 10) Colorimeter - 1
- 11) Distilled Water Plant – 1
- 12) Laminar air flow cabinet - 1
- 13) Arrangements for gas supply and fitting of two burners per table.
- 14) One working table of 6' x 2½' for two students.
- 15) One separate sterilization room attach to the laboratory (10' x 15')
- 16) At least one wash basin for a group of five students
- 17) Colony counter
- 18) Water bath
- 19) One separate instrument room attached to lab (10' x 15')
- 20) One laboratory for one batch including working tables (6' x 2½') per two students for one batch
- 21) Store room (10' x 15')

Theory Examination

Nature of Question paper

Q.1 Multiple choice questions (10- Questions) ----	10 marks
Q.2 Attempt any two of the following. (Essay type/Broad answer questions) ----	20 marks
Q.3 Write short notes (any four) ----	20 marks

Practical Examination

- (A) The practical examination will be conducted on two consecutive days for three hours per day per batch of the practical examination.
- (B) Each candidate must produce a certificate from the Head of the Department in her/his college, stating that he/she has completed in a satisfactory manner the practical course on lines laid down from time to time by Academic Council on the recommendations of Board of Studies and that the journal has been properly maintained. Every candidate must have recorded his/her observations in the laboratory journal and have written a report on each exercise performed. Every journal is to be checked and signed periodically by a member of teaching staff and certified by the Head of the Department at the end of the year. Candidates must produce their journals at the time of practical examinations.
- (C) Nature of question paper and distribution of marks for Practical Examination

Q.1	Special Staining	10
Q.2	Isolation and study of colony characters, gram nature and motility of bacteria / Enumeration of bacteria from water / milk by SPC	15
Q.3	Biochemical tests	05
Q.4	Detection of enzyme activity	05
Q.5	Spotting	10
Q.6	Journal	05
Total Marks		50

SHIVAJI UNIVERSITY, KOLHAPUR.



Accredited By NAAC with 'A' Grade

Revised Syllabus For

Bachelor of Science Part- II

MICROBIOLOGY

CBCS PATTERN

Syllabus to be implemented from

June, 2019 onwards.

B.Sc. Part II (Microbiology)

SEMESTER-III

Course V	DSC- C 25 Microbial Physiology & Metabolism (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	Microbial Physiology & Metabolism	15
	<p>A) Growth : Growth phases, measurement of growth, continuous growth, synchronous growth and diauxic growth</p> <p>B) Effect of environmental factors on microbial growth :</p> <ul style="list-style-type: none"> i. Temperature : Mesophiles, psychrophiles, thermophiles and hyperthermophiles. Thermal destruction of bacteria – D, F and Z values, TDP and TDT ii. pH: Neutrophiles, Acidophiles and Alkalophiles iii. Osmotic pressure -Isotonic, hypotonic and hypertonic environments, xerophiles and halophiles. iv. Heavy metals v. Radiations- U.V. rays <p>C) Transport across cell membrane - Diffusion, active transport and group translocation</p>	
Unit II / Credit II	Microbial Metabolism	15
	<p>A) Catabolism of glucose - EMP,HMP, ED and TCA cycle</p> <p>B) Fermentation - Homolactic & Heterolactic fermentation</p> <p>C) Bacterial electron transport chain – Components, flow of electrons & mechanism of ATP generation - Chemiosmotic hypothesis</p>	
Course VI	DSC- C 26 : Applied Microbiology (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	Applied Microbiology	15
	<p>A) Air Microbiology:</p> <ul style="list-style-type: none"> a) Sources of microorganisms in air. b) Definitions of - Infectious dust, Droplets & Droplet nuclei c) Sampling methods for microbial examination of air <ul style="list-style-type: none"> i) Solid impaction - Sieve device ii) Liquid Impingement – Bead-bubbler device 	

	<p>B) Water Microbiology:</p> <ul style="list-style-type: none"> a) Sources of microorganisms in water. b) Fecal pollution of water, Indictors of fecal pollution of water – <i>E. coli</i> c) Routine Bacteriological analysis of water. <ul style="list-style-type: none"> 1) SPC & 2) Tests for coliforms - <ul style="list-style-type: none"> i. Qualitative-Detection of coliforms - Presumptive test, Confirmed Test, Completed test. Differentiation between coliforms - IMViC test, Eijkman test. ii. Quantitative – MPN, Membrane filter technique d) Municipal water purification process and its significance. <p>C) Milk Microbiology:</p> <ul style="list-style-type: none"> a) Sources of microorganisms in milk b) General composition of Milk. c) Microbiological examination of Milk – DMC, SPC and dye reduction test- MBRT test d) Pasteurization - Definition, Methods – LTH , HTST ,UHT, Efficiency of Pasteurization– Phosphatase test (Qualitative) 	
Unit II/ Credit II	Industrial Microbiology	15
	<p>A) Basic concepts of fermentation.</p> <ul style="list-style-type: none"> 1. Definition, concept of primary and secondary metabolites 2. Types of fermentations – Batch, continuous, dual and multiple 3. Typical Fermentor design – Parts and their functions. 4. Factors affecting fermentation process <p>B) Screening - Primary and secondary screening</p> <p>C) Fermentation Media - Water, carbon source, nitrogen source, precursors, growth factors , antifoam agents & chelating agents.</p>	

SEMESTER-IV

Course VII	DSC- D 25 : Microbial Genetics & Molecular Biology (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	Microbial Genetics	15
	<p>A) Basic concepts -</p> <ul style="list-style-type: none"> a) Forms of DNA b) Gene, genome, genotype, phenotype, mutagen, recon, muton , cistron c) Split genes. d) Genetic code – definition and properties of genetic code. <p>B) Mutation -</p> <ul style="list-style-type: none"> a) Basic Concepts of Mutation: Base pair substitutions, Frame shift , Missense , nonsense, neutral, silent , pleiotropic and suppressor mutations. b) Spontaneous mutation – Definition and basic concept. c) Induced mutations – Definition , Mechanism of mutagenesis by- <ul style="list-style-type: none"> i. Base analogues : 5-Bromouracil and 2- aminopurines ii. Mutagens modifying nitrogen bases- <ul style="list-style-type: none"> a. Nitrous acid b. Hydroxylamine c. Alkylating agents iii. Mutagens that distort DNA - <ul style="list-style-type: none"> a. Acridine dyes b. UV light 	
Unit II / Credit II	Molecular Biology	15
	<p>A) Gene transfer in bacteria.</p> <ul style="list-style-type: none"> a. Fate of exogenote in recipient cell. b. Modes of gene transfer - Transformation, Conjugation, Transduction <p>B) Plasmids – a. Natural – Properties, types , structure and applications</p> <p style="padding-left: 40px;">b. Artificial – pBR 322- structure and applications</p> <p>C) DNA repair : i) Photoreactivation</p> <p style="padding-left: 40px;">ii) Dark repair mechanism (Excision repair)</p> <p>D) Lac operon – structure and working</p>	
Course VIII	DSC- D 26 : Basics in Medical Microbiology & Immunology (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	Medical Microbiology	15
	<p>a) Definitions – Host, Parasite, Saprophytes, Commensal, Infection, Etiological agent, Disease, Pathogen, Opportunistic pathogen, True</p>	

	<p>pathogen, Virulence, Pathogenicity , Fomite, Incubation period, Carriers, Morbidity rate, Mortality rate, epidemiology, etiology, Prophylaxis, Antigen, Antibody, Hapten, Vaccine, Immunity.</p> <p>b) Virulence factors (production of endotoxins, exotoxins, enzymes, escaping of phagocytosis)</p> <p>c) Types of diseases – i) Epidemic, ii) Endemic, iii) Pandemic, iv) Sporadic.</p> <p>d) Types of infections – Chronic, acute, primary, secondary, reinfection, Iatrogenic, congenital, local, generalized, Covert, Overt, Simple, Mixed, Endogenous, Exogenous, Latent, Pyogenic, Nosocomial.</p> <p>e) Modes of transmission of diseases</p> <ol style="list-style-type: none"> 1. Transmission by air, water & food 2. Contact transmission 3. Vector borne transmission <p>f) General principles of prevention and control of microbial diseases.</p> <p>g) Normal flora of human body & its significance</p>	
Unit II/ Credit II	Immunology	15
	<p>1. Immunity i) Defintion ii) Innate Immunity- types, factors influencing innate immunity iii)Acquired Immunity – Active & passive</p> <p>2.Non Specific defense mechanisms of the vertebrate body</p> <ol style="list-style-type: none"> i) First line of defense ii) Second line of defense <p>3. Antigen : Chemical nature, types of antigens, factors affecting antigenicity.</p> <p>4. Antibody : Types of antibodies – Structure, properties and functions.</p> <p>5. Theories of antibody production.</p> <p>6. Immune Response : Primary and secondary immune responses.</p> <p>7. Mechanism of antigen – antibody reaction- Lattice hypothesis</p> <p>8. Types of antigen-antibody reaction-Precipitation and Agglutination</p>	

PRACTICAL COURSE

Course V & VI	Practical Course III (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	1. Stains and staining procedures : i) Spore staining (Dorner's method) ii) Flagella staining (Bailey's method) iii) Nucleus staining (Giemsa's method) using yeast cells. 2. Preparation of media : Gelatin agar, Amino acid decarboxylation medium, Amino acid deamination medium, Arginine broth, Christensen's medium, Peptone nitrate broth, Hugh and Lefson's medium	15
Unit II / Credit II	1. Biochemical tests : i) Gelatin hydrolysis test. ii) Amino acid decarboxylation test iii) Amino acid deamination test iv) Urea hydrolysis test v) Nitrate reduction test vi) Hugh and Lefson's test vii) Arginine hydrolysis 2. Effect of environmental factor on microorganisms : i) Temperature ii) pH iii) Heavy metals – Copper iv) Antibiotic – Penicillin v) Salt - NaCl	15
Course VII & VIII	Practical Course IV : (CREDITS:02; TOTAL HOURS : 30)	No. of Hours per Unit / Credit
Unit I / Credit I	1. Bacteriological analysis of water a. Qualitative tests – Presumptive , confirm and completed test b. Quantitative - MPN 2. Primary Screening of - i. Antibiotic producers – crowded plate technique ii. Amylase producers 3. Determination of growth phases of <i>E. coli</i> by Optical density	15
Unit II / Credit II	1. Isolation of lac negative mutants of <i>E. coli</i> by visual detection method 2. Effect of U.V. light on growth of bacteria 3. Isolation and identification of pathogenic microorganisms from clinical sample. (a) <i>Salmonella species</i> (b) <i>Proteus species</i> 4. Determination of Blood groups – ABO and Rh. 5. Serological tests - Widal test – qualitative slide test	15

Practical Examination

- (A) The practical examination will be conducted on two consecutive days for six hours per day per batch of the practical examination.
- (B) Each candidate must produce a certificate from the Head of the Department in her/his college, stating that he/she has completed in a satisfactory manner the practical course or lines laid down from time to time by Academic Council on the recommendations of Board of Studies and that the journal has been properly maintained. Every candidate must have recorded his/her observations in the laboratory journal and have written a report on each exercise performed. Every journal is to be checked and signed periodically by a member of teaching staff and certified by the Head of the Department at the end of the year. Candidates must produce their journals at the time of practical examinations.
- (C) Candidates have to visit at least one place of microbiological interest (pharmaceutical / industry/dairy/research institute etc.) and submit the report of their visit

Nature of the Practical Examination Question Paper and Distribution Marks

	Marks
Q.1 Determination of lag phase / staining	15
Q.2 Isolation and identification of pathogen	20
Q.3 Serology / blood groups	05
Q.4 Primary screening technique / isolation of lac negative mutant	10
Q.5 Biochemical tests	10
Q.6 Effect of environmental factors	10
Q.7 Spot tests (on culture media)	10
Q.9 Journal	10
Q.10 Tour report	10

Total marks – 100

Books Recommended for Theory Papers

1. Foundation in Microbiology – by Kathleen Park talaro, Arther Talaro.
2. Introduction to Microbiology – John I. Ingraham, Catherine A. Ingraham A. Ingraham A. Ingraham, Ronald M; Second edition.
3. Zinsser's Microbiology – by Wolfgang K. Joklik, (1995) Mc Graw-Hill Co.
4. Microbial Genetics – by Stanley R. Maloy, David Freifelder and John E. Cronan.
5. Molecular Genetics of Bacteria – by Larry Snyder, Wendy Champness.
6. Microbiology – Pelczar, Reid and Chan
7. Fundamentals of Microbiology – Frobisher et al.
8. Fundamental principles of Bacteriology – A. G. Salle.
9. Industrial microbiology – Prescott and Dunn
10. Industrial microbiology – Casida, E.
11. Industrial microbiology – Miller and Litsky
12. General Microbiology – R. Y. Stainer
13. Chemical Microbiology – A. H. Rose.
14. General Microbiology – Vol. I and Vol. II – Pawar and Diganawala
15. Text book of Microbiology – Ananthnarayan
16. Biochemistry – Lehninger.
17. Outlines of Biochemistry – Cohn and Stumph
18. A Text book of Microbiology – R. Dubey, D. K. Maneshwari, S. Chand Co. Ltd. Ramnagar New Delhi 110055

Books recommended for Practicals

1. Manual of Diagnostic Microbiology – Wadher and Boosreddy.
2. Diagnostic Microbiology – Fingold.
3. Introduction to Microbial technique – Gunasekaran.
4. Biochemical methods – Sadashivam and Manickam.
5. Basic and Practical Microbiology – Atlas.
6. Bacteriological techniques F. J. Baker.
7. Laboratory Fundamentals of Microbiology – Alcamo, I. E.
8. Clinical Microbiology – Ramnik Sood.
9. Medical Lab Technology – Mukharji Vol. II
10. Medical Lab Technology – Godkar
11. Medical Microbiology – Cruickshank et al. Vol. II.

List of the minimum equipments for B.Sc. II Microbiology Course

All the equipments required for B.Sc. Part I Microbiology course

SHIVAJI UNIVERSITY, KOLHAPUR.



"A" Re-accredited By NAAC

(2014) with CGPA-3.16

**NEW SYLLABUS FOR
B.Sc. Part III
MICROBIOLOGY
CBCS PATTERN
SYLLBUS TO BE IMPLEMENTED
FROM JUNE 2020**

SHIVAJI UNIVERSITY, KOLHAPUR

REVISED SYLLABUS FOR BACHELOR OF SCIENCE PART - III : MICROBIOLOGY

1. TITLE : Microbiology

2. YEAR OF IMPLEMENTATION: Revised Syllabus will be implemented from June 2020 onwards.

3. PREAMBLE:

This syllabus is framed to give sound knowledge with understanding of Microbiology to undergraduate students at first year of three years of B.Sc. degree course. Students learn Microbiology as a separate subject from B.Sc. I. The goal of the syllabus is to make the study of Microbiology popular, interesting and encouraging to the students for higher studies including research. The new and updated syllabus is based on a basic and applied approach with vigor and depth. At the same time precaution is taken to make the syllabus comparable to the syllabi of other universities and the needs of industries and research.

The syllabus is prepared after discussion at length with number of faculty members of the subject and experts from industries and research fields. The units of the syllabus are well defined, taking into consideration the level and capacity of students.

4. GENERAL OBJECTIVES OF THE PROGRAMME :

- 1) To make the students knowledgeable with respect to the subject and its practicable applicability.
- 2) To promote understanding of basic and advanced concepts in microbiology.
- 3) To expose the students to various emerging areas of Microbiology.
- 4) To prepare students for further studies helping in their bright career in the subject
- 5) To expose the students to different processes used in industries and in research field
- 6) To develop their ability to apply the knowledge of microbiology in day to day life.
- 7) To prepare the students to accept the challenges in life sciences.
- 8) To develop skills required in various industries, research labs and in the field of human health.

7. DURATION : The course shall be a full time course.

8. PATTERN: Pattern of Examination will be Semester.

9. MEDIUM OF INSTRUCTION: The medium of instruction shall be in English.

8. STRUCTURE OF COURSE -

1) B. Sc. III : Total Number of Courses - 8

Sr. No.	Subjects	Marks
	SEMESTER V	
1.	Course – IX	40+10
2.	Course – X	40+10
3.	Course – XI	40+10
4.	Course – XII	40+10
	SEMISTER VI	
5.	Course – XIII	40+10
6.	Course – XIV	40+10
7.	Course – XV	40+10
8.	Course – XVI	40+10
	PRACTICAL COURSE	
9	Practical – I	50
10	Practical – II	50
11	Practical – III	50
12	Practical – IV	50
Total		600

2) Structure and Titles of Papers of B.Sc. III Course :

SEMESTER VI	
Course IX (DSE E 49)	Virology
Course X (DSE E 50)	Immunology
Course XI (DSE E 51)	Food and Industrial Microbiology
Course XII (DSE E 52)	Agricultural Microbiology

SEMESTER VI	
Course XIII (DSE F 49)	Microbial Genetics
Course XIV (DSE F 50)	Microbial Biochemistry
Course XV (DSE F 51)	Environmental Microbiology
Course XVI (DSE F 52)	Medical Microbiology

9. SCHEME OF TEACHING AND EXAMINATION:

[The scheme of teaching and examination should be given as applicable to the course/paper concerned.]

Sr. No.	Subject/Paper	Teaching Scheme (Hrs/week)		
		L	P	Total
1	Course – IX and XIII	3		
2	Course – X and XIV	3		
3	Course – XI and XV	3		12
4	Course – XII and XVI	3		
5	Practical I		5	
6	Practical II		5	20
7	Practical III		5	
8	Practical IV		5	
	Total			32

10. SCHEME OF EXAMINATION :

- The theory examination shall be conducted at the end of each semester of academic year.
- Each theory paper shall carry 40 marks.
- The evaluation of the performance of the students in theory papers shall be on the basis of Semester Examination of 600 marks.
- Question Paper will be set in view of the / in accordance with the entire Syllabus and preferably covering each unit of syllabi.

11. EQUIVALENCE IN ACCORDANCE WITH TITLES AND CONTENTS OF PAPERS FOR REVISED SYLLABUS

Sr. No.	TITLE OF OLD PAPER	TITLE OF NEW PAPER
1	Paper IX: Virology	Course IX (DSE E 49): Virology
2	Paper X: Immunology and Serology	Course X (DSE E 50): Immunology
3	Paper XI: Food and Industrial Microbiology	Course XI (DSE E 51): Food and Industrial Microbiology
4	Paper XII: Agricultural Microbiology	Course XII (DSE E 52): Agricultural Microbiology
5	Paper XIII: Microbial Genetics	Course XIII (DSE F 49): Microbial Genetics
6	Paper XIV: Microbial Biochemistry	Course XIV (DSE F 50): Microbial Biochemistry
7	Paper XV: Environmental Microbiology	Course XV (DSE F 51): Environmental Microbiology
8	Paper XVI: Clinical Microbiology	Course XVI (DSE F 52): Medical Microbiology
9	Practical – I, II, III, IV	Practical – I, II, III, IV

12. OTHER FEATURES :

A. LIBRARY : Reference and Text Books, Journals and Periodicals, Reference Books for Advanced studies. - List Attached

- B. SPECIFIC EQUIPMENTS : Necessary to run the Course - OHP, Computer, L.C.D., Projector
- C. LABORATORY SAFETY EQUIPMENTS :
- Fire extinguisher
 - First aid kit
 - Fumigation chamber
 - Stabilized power supply
 - Insulated wiring for electric supply.
 - Good valves, distribution pipes & regulators for gas supply.
 - Operational manuals for instruments.
 - Emergency exits.

Nature of Question papers (Theory)

COMMON NATURE OF QUESTION FOR THEORY COURSES

Q.1 Multiple Choice (8).	8 Marks
Q.2 Long Answer questions (Any 2 out of 3)	16 Marks
Q.3 Short Answer questions (Any 4 out of 6)	16 Marks

B.SC.III MICROBIOLOGY

SEMESTER V

COURSE IX DSE - E 49 VIROLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT - I

Lectures - 23

- 1) The Structural properties of viruses : Capsids, Nucleic acids and envelope.
Structure of T4 bacteriophage, TMV and HIV, Viroids and prions.
- 2) Reproduction of Bacteriophages :
 - a) One step growth experiment.
 - b) Reproduction of T4 phage.
- 3) Isolation, cultivation and Purification of viruses
 - a) Isolation and cultivation of viruses:
 - i) Animal virus - Tissue culture, chick embryo and live animals
 - ii) Plant virus – Whole plant, Protoplasts, Insect cell culture
 - iii) Bacteriophages - Plaque method
 - b) Purification of viruses based on physico-chemical properties:
 - i) Density gradient centrifugation
 - ii) Precipitation
- 4) Methods of Enumeration of viruses
 - i) Latex droplet method (Direct electron microscopic count)
 - ii) Plaque and pock assay method.

UNIT – II / CREDIT - II

Lectures - 22

- 1) Lysogeny
 - a) Introduction
 - Definition of lysogeny
 - Temperate phages
 - b) Lysogeny by lambda phage
 - Adsorption and penetration of λ phage
 - Circularization of lambda genome
 - Genetic map for lysogenic interaction
 - Expression of λ genes
 - Establishment of repression
 - Maintenance of repression

- Integration of λ genome into host genome
- 2) Reproduction of animal virus - Adenovirus.
- 3) Reproduction of plant virus - TMV
- 4) Oncogenesis:
 - a) Definition of oncogenesis
 - b) Types of cancers
 - c) Characteristics of cancer cells.
 - d) Hypothesis about cancer.
 - i) Somatic mutation hypothesis
 - ii) Defective immunity hypothesis
 - iii) Viral gene hypothesis
 - Role of DNA viruses in cancer with special emphasis on Papova viruses.
 - Role of RNA tumor viruses
 - Provirus theory
 - Protovirus theory
 - Oncogene theory

BOOKS RECOMMENDED

1. General Microbiology - Stanier
2. Microbiology - Prescott, Klein
3. Microbiology - Davis
4. General Virology - Luria
5. Genetics of Bacteria and their Viruses - William Hayes.
6. General Microbiology Vol. II - Powar and Dagainawala
7. Virology - Biswas and Biswas
8. Virology Vol. 4- Topley and Wilson
9. Principals of virology- S.J. Flint
10. Bacterial and Phage Genetics – Birge

COURSE X : DSE - E 50 - IMMUNOLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT - I

lectures - 22

A) Cells and organs of the immune system:

I) Cells of the immune system

- i. Hematopoiesis- Characteristics and Types of stem cells
- ii. Classification of cells of immune system-Lymphoid and myeloid cells
- iii. Structure and functions of Lymphoid cells- T cells and T cell subsets, NK cells, B cells and dendritic cells
- iv. Structure and functions of myeloid cells – Granulocytes, Monocytes and macrophages

II) Organs of the immune system

Primary and secondary lymphoid organs - Structure and functions of Thymus, bone marrow, spleen , lymph node and Mucosa associated lymphoid tissue(MALT)

B) Molecular mechanism of antibody production:

- i. Processing and presentation of antigen by Antigen presenting cell.
- ii. Interaction of APC with T_H cell
- iii. Interaction of B cell and T_H cell
- iv. Proliferation and differentiation of activated B cells
- v. Role of follicular dendritic cells in selection of high affinity B cells
- vi. Role of cytokines in proliferation and differentiation

C) Complement:

- i. Nature, Properties, Complement activation by classical and alternate pathway.
- ii. Biological consequences of complement activation

D) Monoclonal antibodies:

- i. Concepts of Polyclonal and monoclonal antibodies
- ii. Production of mouse monoclonal antibodies by hybridoma technology.
- iii. Types of monoclonal antibodies- Mouse, Chimeric, Humanized and Human antibodies
- iv. Applications of monoclonal antibodies.

A) Cytokines:

- i. General characters of cytokines
- ii. Cytokines produced by different T_H cells and Macrophages.
- iii. Effects of cytokines
- iv. Interferon–properties- types, inducers of Interferon, Mechanism of action- antiviral and immunoregulatory

B) Hypersensitivity:

- i. Basic concept ,Gell and Coombs classification
- ii. Type I-Anaphylaxis
- iii. Type II-Blood transfusion reactions
- iv. Type III-Serum sickness.
- v. Type IV- Delayed type hypersensitivity –Allergy of infection, Allograft rejection.

C) Immunological tolerance and Autoimmunity:

- i. Immunological tolerance
 - a) Natural or self tolerance and induced tolerance
 - b) Cellular mechanism of immunological tolerance- Central tolerance and peripheral tolerance
 - c) Termination of tolerance
- ii. Autoimmunity :
 - a) Concept
 - b) Autoimmune diseases: Types, Immunopathological mechanisms-Rheumatoid arthritis, Treatment of autoimmune diseases

Books Recommended :

- 1) Immunology - 6th edition - Kubay ,Kindt, Goldsby & Osborne.
- 2) Essential Immunology - 11th edition - Delves, Martin, Burton and Roitt.
- 3) Immunology - An Introduction, 4th edition – Tizzard.
- 4) Basic and Clinical Immunology 5th edition- Stites, Stobo, H. H. Fudenberg.
- 5) Essentials of Immunology - S. K. Gupta
- 6) Immunology – M. P. Arora
- 7) Textbook of Basic and clinical Immunology- Sudha Gangal, Shubhangi Sontakke University Press
- 8) The elements of Immunology- Fahim Khan, Pearson Publication 2009
- 9) Immunology Second Edition- Vaman Rao.

COURSE XI : DSE - E 51 FOOD AND INDUSTRIAL MICROBIOLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT - I

lectures - 22

1) Food Microbiology

- a) Food as a substrate for microorganisms: Intrinsic and extrinsic factors
- b) Sources of microorganisms to food
- c) Food spoilage: spoilage wine and beer, spoilage of vinegar
- d) General Principles and methods of food preservation
- e) Determination of: TDP, TDT, D, F, and Z values
- f) Food poisoning:
 - a. Role of microorganisms in food poisoning
 - b. Food poisoning:
 - i) Staphylococcal
 - ii) Fungal (aflatoxin)
- g) Food infections: food infection: Salmonellosis.
- h) Probiotics: Concept and applications

2) Industrial Microbiology

- A) Strain Improvement
- B) Scale up of fermentations
- C) Microbiological assays

UNIT – II / CREDIT - II

lectures - 23

1) Industrial Microbiology

- A. Preservation of industrially important microorganisms: Methods & Culture collection centers.
- B. Industrial production of:
 - a. Alcohol: - Organisms used, Inoculum preparation, Fermentation media, Fermentation conditions, Extraction and Recovery.
 - b. Grape wine: - Definition, types, production of table wine (Red and White) and microbial defects of wine
 - c. Penicillin: - Organisms used, Inoculum preparation, Fermentation media, Fermentation conditions, Extraction and Recovery. Concept of semi synthetic penicillin
- C. Down stream processing & product recovery :
Centrifugation, flocculation, filtration, solvent extraction, distillation, precipitation, crystallization and chromatography.
- D. Testing of sterility, pyrogen, carcinogenicity, toxicity and allergens

Books Recommended:

1. Principles of fermentation technology- Peter F. Stanbury & Allan Whitaker (Pergamon Press).
2. Principles of Microbial technology - Peppler, Vol. I & II.
3. Industrial Microbiology - Casida
4. Industrial Microbiology - A. H. Patel
5. Industrial Microbiology - Prescott & Dnn
6. Industrial Microbiology - Miller
7. Pharmaceutical Microbiology - Huggo & Russel
8. Modern food Microbiology - Jay & Jay
9. Food Microbiology - Frazier
10. Industrial Microbiology- Cruger.
11. Fermentation Technology- A.H.Modi - Vol. I and II

COURSE XII : DSE - E 52 - AGRICULTURAL MICROBIOLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT - I

Lectures - 23

- 1) Soil Microbiology
 - a. Physical characters.
 - b. Chemical characters.
 - c. Types of microorganisms in soil and their role in soil fertility.
 - d. Microbiological interactions - Symbiosis, Commensalism, Amensalism, Parasitism, and Predation.
- 2) Role of microorganisms in elemental cycles
 - a. Carbon cycle.
 - b. Nitrogen cycle
 - c. Phosphorous cycle
- 3) Role of Microorganisms in reclamation of soil.
 - I) Manure and Compost
Methods of Production:
 - a) Green manure and farm yard manure
 - b) City compost- Windrow and pit method.
 - c) Vermicompost
 - II) Optimal conditions for composting with reference to - Composition of organic waste, Availability of microorganisms, Aeration, C:N:P ratio, Moisture content, Temperature, pH and Time.
 - III) Standards of City Compost and Vermicompost as per Fertilizer Control Order.

UNIT – II / CREDIT - II

Lectures - 22

- 1) Types, production, methods of application and uses of :
 - A) Biofertilizers**
 - i) Nitrogen fixing - Azotobacter, Rhizobium, and Azospirillum.
 - ii) Phosphate Solubilizing Microorganisms.
 - B) Biopesticides**
 - a) *Bacillus thuringiensis*
 - b) *Tricoderma spp.*
 - c) *Beauveria bassiana*
- 2) Biodegradation of :
 - a) Cellulose
 - b) Pesticides
- 3) Plant Pathology:
 - a) Common symptoms produced by plant pathogens
 - b) Modes of transmission of plant diseases.

c) Plant diseases :

- i) Citrus Canker
- ii) Tikka disease of groundnut
- iii) Bacterial Blight of Pomegranate.

Books Recommended:

1. Soil Microbiology - An exploratory approach - Mark Coyne.
2. Agricultural Microbiology - N. Mukherjee and J. Ghosh.
3. Introduction to Soil Microbiology - Martin Alexander II
4. Edition.
5. Agricultural Microbiology - Rangaswamy and Bhagyaraj II
6. Plant diseases - R. S. Singh.
7. Plant pathology - R. S. Mehrotra.
8. Diseases of crop plants in India - G. Rangaswamy.
9. Principles of Soil Science - M. M. Rai.
10. Soils and Soils Fertility- 6th edition-Frederick R.Troeh (Blackwell publishing Co.)
11. 10.Soil Microbiology- Singh, Purohit, Parihar. (Agrobios India , 2010)
12. Soil Microbiology and Biochemistry – Ghulam Hassan Dar (New India Publishing Agency, 2010)

B.SC.III MICROBIOLOGY

SEMESTER VI

Course XIII DSE F49: MICROBIAL GENETICS

(Credit-2, Total Lectures- 45)

UNIT – I/ CREDIT I

Lectures - 22

- 1) Basic concepts of bacterial genome -
 - a) Structural organization of *E. coli* chromosome - Folded Fiber model.
 - b) One cistron - one polypeptide hypothesis.
- 2) Molecular mechanism of gene expression
 - a) Concept of operon
 - b) Pribnow box
 - c) Genetic regulation in tryptophan operon
- 3) Mutations
 - a) Expression of mutations -
 - i) Time course of phenotypic expression.
 - ii) Conditional expression of mutation.
 - b) Suppressor mutations (with examples) - Genetic and non-genetic.
- 4) Methods of isolation and detection of mutants based on -
 - a) Relative survival
 - b) Relative growth
 - c) Visual detection

UNIT – II / CREDIT II

Lectures - 23

- 1) Genetic complementation - Cis-trans test
- 2) Extrachromosomal inheritance :
 - a) Kappa particles.
 - b) Transposable elements - general properties and types.
- 3) Techniques in Molecular Biology –

- a) DNA sequencing (Sanger's method)
 - b) DNA Finger printing
 - c) PCR
- 4) Genetic engineering
- a) Introduction
 - b) Tools of genetic engineering –
 - i) Enzymes
 - ii) Vectors-phage, plasmid and cosmid
 - iii) DNA probe
 - iv) Linkers and adaptors
 - v) Cloning organisms - (Bacteria and Yeasts)
 - vi) Genomic library and cDNA library
 - c) Techniques –
 - i) Isolation of desired DNA segment- Shotgun Method, cDNA synthesis, Chemical synthesis
 - ii) Construction of r-DNA using appropriate vector- Use of restriction enzymes, Linkers, Adaptors, Homopolymer tails
 - iii) Transfer to cloning organisms (Bacteria and Yeasts)
 - iv) Selection of recombinant bacteria and yeasts – Blue and white screening, Colony hybridization technique.
 - d) Application of genetic engineering in –
 - i) Medicine-
 - ii) Agriculture
 - iii) Industry
 - iv) Environment

Books Recommended:

1. Genetics - Stickberger.
2. Genes - Benjamin Lewin IX ed.
3. Principles of gene manipulation - Primrose and Old
4. Genetic Engineering - Second Ed. Desmond S. T. Nicholl
5. Recombinant DNA - J. D. Watson
6. Biochemistry - Lehninger
7. Molecular Biology of Gene - J. D. Watson
8. Principles of Genetics - Herskowitz
9. General Microbiology - Stanier

COURSE XIV DSE F50: MICROBIAL BIOCHEMISTRY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT I

Lectures - 22

1) Enzymes -

A) Definition, properties, structure, specificity, mechanism of action (Lock & Key, Induced fit hypothesis), Basics of enzyme classification.

B) Allosteric enzymes - Definition, properties, models explaining mechanism of action (Concerted and sequential models). Patterns of feed back inhibition.

2) Extraction and purification of enzymes.

A) Methods of extraction of intracellular and extracellular enzymes. i) Choice of source and biomass development

B) Methods of homogenization - cell disruption methods

C) Purification of enzymes on the basis of - a) Molecular size, b) Solubility differences c) Electrical charge, d) Adsorption characteristic differences e) Differences in biological activity

3) Assay of enzymes - Based on substrate and product estimation.

4) Ribozymes and Isozymes.

5) Immobilization of enzymes - Methods and applications

UNIT – II / CREDIT II

Lectures - 23

1) Factors affecting enzyme activity-

a) Factors affecting catalytic efficiency of enzymes- i) Proximity and orientation, ii) Strain and distortion, iii) Acid base catalysis, iv) Covalent catalysis

b) Environmental factors influencing enzyme activity- i) Substrate concentration, ii) Temperature, iii) pH, iv) Metal ions

2) Kinetics of single substrate-enzyme catalyzed reactions - Derivation of Michaelis-Menten equation, Lineweaver Burk Plot, Significance of K_m and V_{max} .

3) Microbial Metabolism

I) Basics in carbohydrate metabolism-

a) PP pathway, ED pathway, Phosphoketolase pathway

b) Pyruvate as a key intermediate

c) Glyoxylate bypass

II) Assimilation of -

- a) Carbon
 - b) Nitrogen with respect to N_2 and NH_3 (GOGAT)
 - c) Sulphur
- 4) Biosynthesis of -
 - a) RNA, b) DNA, c) Proteins, d) Peptidoglycan
- 5) Regulation of enzyme synthesis. i) Positive control - Ara operon, ii) Negative control - Lac operon
iii) Catabolite repression

Books Recommended:

1. Enzymology - Prise & Stevens
2. Enzymes - Biochemistry, Biotechnology, clinical chemistry - Trevor Palmer.
3. Enzymes - Dixon and Webb
4. Nature of Enzymology - R. L. Foster,
5. Lehnigers Principles of Biochemistry by David Nelson & Michale Cox, Fifth edition.
6. General Microbiology - Stanier
7. Principles & techniques of Biochemistry - Wilson & Walker, 6th edition.
8. Biochemistry - Lubert Stryer

COURSE XV DSE F51: ENVIRONMENTAL MICROBIOLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT I

Lectures - 22

- 1) General characteristics of waste-
 - a) Liquid waste - pH, electrical conductivity, COD, BOD, total solids, total dissolved solids, total suspended solids, total volatile solids, chlorides, sulphates, oil & grease.
 - b) Solid waste- pH, electrical conductivity, total volatile solids, ash.
 - c) Standards as per MPCB.
- 2) Sewage Microbiology
 - a) Physico-chemical and Biological characteristics
 - b) Treatment
 - i) Biological treatment: Trickling filter, Activated sludge process, Oxidation ponds, Anaerobic digestion, Septic tank, Root zone technology
 - ii) Chemical treatment - Chlorination
- 3) Characteristics and treatment of waste generated by
 - a) Sugar Industry
 - b) Distillery
 - c) Dairy Industry

- d) Hospital
- 4) Eutrophication
 - a) Classification of lakes
 - b) Sources
 - c) Consequences
 - d) Control

UNIT – II / CREDIT II

Lectures - 23

- 1) Biological safety in laboratory
 - a) Good Laboratory Practices
 - b) Bio safety levels (BSL)
- 2) Environmental monitoring
 - a) Definition and purpose
 - b) Cleanroom classification
 - c) Routine Environmental monitoring programme in pharmaceutical industries- Air monitoring, Surface monitoring and Personnel monitoring.
 - d) Bioburden test
- 3) Environmental Impact Assessment- Concept and Brief introduction
- 4) Bioremediation and Bioleaching
 - a) Bioremediation
 - i) Definition
 - ii) Types
 - iii) Applications.
 - b) Bioleaching
 - i) Introduction
 - ii) Microorganisms involved
 - iii) Chemistry of Microbial leaching
 - iv) Laboratory scale and pilot scale leaching
 - v) In situ leaching - Slope, heap
 - vi) Leaching of Copper and Uranium

Books Recommended:

1. Environmental Pollution by Chemicals - Walker, Hulchiason.
2. Biochemistry and Microbiology of Pollution - Higgins and Burns.
3. Environmental Pollution - Laurent Hodge, Holt.
4. Waste Water Treatment - Datta and Rao (Oxford and IBH)
5. Sewage and waste treatment - Hammer

6. Pollution - Kudesia, Pragati Prakashan Meerat.
7. Environment Chemical Hazards - Ram Kumar (Swarup and Sons, New Delhi).
8. Environment and Metal Pollution - Khan (ABD Pub. Jaipur).
9. Environment Pollution - Timmy Katyal (Satke Anmol Pub. New Delhi).
10. Ecology of Polluted Water - Vol. II - Anand Kumar (Aph Pub. Co. New Delhi).
11. Environment Pollution and Management of waste waters by
Microbial Techniques - Pathade and Goel (ABD Pub. Jaipur).
12. Current Topics in Environmental Sciences - Tripathi and Pandey (ABD Pub. Jaipur).
13. Environmental Impact Assessment - R. K. Trivedy
14. Microbial Limit and Bioburden Tests, 2nd edition - Lucia Clontz (CRC Press)

COURSE XVI DSE F52: MEDICAL MICROBIOLOGY

(Credit-2, Total Lectures- 45)

UNIT – I / CREDIT I

Lectures - 22

BACTERIAL DISEASES

Morphology, cultural and biochemical characteristics, antigenic structure, modes of transmission, pathogenesis, symptoms, laboratory diagnosis, prevention and control of diseases caused by

i) *Mycobacterium tuberculosis* ii) *Clostridium perfringens* iii) *Treponema pallidum* iv) *Pseudomonas aeruginosa* v) *Vibrio cholera* vi) *Staphylococcus aureus* vii) *Leptospira interrogans* viii) *Klebsiella pneumonia*

UNIT – II / CREDIT II

Lectures – 23

A. Morphology, cultural and biochemical characteristics, antigenic structure, modes of transmission and pathogenesis, symptoms, laboratory diagnosis, prevention and control of diseases caused by-

- 1) Protozoa : *Plasmodium falciparum* (malaria)
- 2) Viruses : i) Hepatitis A & B virus , ii) Rabies virus iii) Dengue virus
- 3) Fungus: *Candida albicans*

B. Chemotherapy

- 1) Chemoprophylaxis
- 2) General principles of chemotherapy

- 3) Mode of action of antimicrobial agents:
 - a) Antibacterial drugs: Penicillin, Bacitracin, Piperacillin, cycloserine, Streptomycin, Tetracycline, Trimethoprim, Sulphonamides and Quinolones .
 - b) Antiviral drug :AZT,
 - c) Antifungal drugs: Ketoconazole, Griseofulvin, Nystatin
 - d) Antiprotozoal drugs: Metranidazole, Mepacrine
- 4) Drug resistance: Reasons and Mechanism of drug resistance
- 5) Immunoprophylaxis: Vaccines and Immune Sera
 - a) Vaccines-live attenuated, inactive, subunit, conjugate and DNA vaccines
 - b) Immune Sera- examples with applications

Books Recommended:

1. Microbiology–Davis B.D., Delbacco, 4th edition,1990 ,J.B.Lippincott Co. NY
2. Text book of Microbiology-Ananthnarayan R and C.E. Jayaram Panikar 5th edition, 1996, Orient Longman
3. Medical Bacteriology-Dey N.C. & Dey T.K. 17th edition 1988, Allied Agency, Calcutta
4. Medical Bacteriology including Medical Mycology & AIDS–T. K. Dey, D. Sinha & N. C. Dey,New Central Book Agency (Kolkata)
5. Principals and Practice of Clinical Bacteriology–A.M.Emmerson
6. Antimicrobial chemotherapy- David Greenwood, 5th edition, Oxford university press
7. Medical Laboratory Technology;Vol. III,-Mukharjee K.L. ,10th edition. Tata Mc Graw-Hill Pub Co.
8. Ananthnarayan and Paniker's Textbook of Microbiology –9th edition , Editor Arati Kapil 2013, University Press

PRACTICAL COURSE

Practical - I (Virology and Microbial Genetics)

Major :

1. Isolation of coliphages from sewage.
2. Effect of U.V. light on bacteria and graphical presentation of result.
3. Isolation of auxotrophic mutants by replica plate technique
4. Transfer of genetic material by transformation in *E.coli*
5. Isolation of chromosomal DNA from bacteria (J. Marmurs method or by Phenol chloroform method)

Minor :

1. Electrophoretic separation of DNA.
2. Isolation of streptomycin - resistant mutants (gradient plate technique)
3. Testing of carcinogenicity of a substance by Ame's test.

Practical - II (Food and Industrial Microbiology)

Major :

1. Assay of amylase by DNSA method (graphical estimation)
2. Bio-assay of Vitamin B12
3. Bio-assay of Penicillin.

Minor:

1. Production of wine and examination for pH, colour and alcohol content.
2. Citric acid fermentation, recovery and estimation by titration.
3. Amylase production by using *Bacillus* species.
4. Isolation of lactic acid bacteria from fermented food.
5. Examination of milk by Direct microscopic count (DMC)

Practical - III (Agricultural and Environmental Microbiology)

Major :

1. Isolation of Azotobacter from soil.
2. Isolation of Xanthomonas from infected citrus fruit.
3. Isolation of Rhizobium from root nodules.
4. Isolation of phosphate solubilising bacteria from soil.
5. Determination of BOD of sewage

Minor :

1. Estimation of Calcium and Magnesium from soil (EDTA method)
2. Determination of organic carbon content of soil (Walkley and Black method)
3. Determination of COD of sewage.

Books recommended for Practical :

1. Medical Lab Technology - Ramnik and Sood, Jaypee brothers (Medical pub. New Delhi)
2. Practical Biochemistry - Plummer
3. APHA (American Public Health Association) Handbook
4. Soil, Plant and Water Analysis - P. C. Jaiswal
5. Biochemical methods - S. Sadasivam, A. Manickam
6. Practical Biochemistry - J. Jayraman
7. Chemical and Biological Analysis of Water - Dr. R. K. Trivedy and P. K. Goel.

Practical - IV Medical Microbiology

Major :

1. Isolation of following pathogens from clinical samples (wherever possible) and identification of the same by morphological, cultural and biochemical characteristics.
a) *Pseudomonas aeruginosa* b) *Staphylococcus aureus* c) *Candida albicans*
2. Determination of MIC of streptomycin against *E.coli* by broth method

Minor :

1. Determination of sensitivity of common pathogens to antibiotics by paper disc method.
2. Serological tests:
 - a) Widal test -Quantitative
 - b) Rapid Diagnostic Test for Malaria
 - c) Demonstration of Enzyme Linked Immunosorbent Assay (ELISA)
3. Haematology:
 - a) Estimation of haemoglobin by Sahli's method
 - b) Determination of ESR of the blood sample (Wintrobe method)
 - c) Determination of PCV
 - d) Total and differential blood cells count.
4. Urine analysis : Physical and chemical examination of urine.
 - a) Microscopic examination of urine-crystals, RBCs, pus cells and bacteria.
 - b) Test for protein (Acetic acid test)
 - c) Test for ketone bodies (Rothra's test)
 - d) Test for bile salt and bile pigments.
 - e) Test for sugar (Benedict's method)

Books recommended for Practical :

1. Medical Lab Technology - Ramnik and Sood, Jaypee brothers (Medical pub. New Delhi)
2. Practical Biochemistry - Plummer
3. APHA (American Public Health Association) Handbook
4. Soil, Plant and Water Analysis - P.C. Jaiswal
5. Biochemical methods - S. Sadasivam, A. Manickam
6. Practical Biochemistry - J. Jayaraman
7. Practical Microbiology – R.C. Dubey, D. K. Maheshwari, S. Chand & Co. Ltd.

Practical Examination

A) The practical examination will be conducted on three (3) consecutive days for not less than 6 hours on each day of the practical examination.

B) Each candidate must produce a certificate from the Head of the Department in his/her college stating that he/she has completed in a satisfactory manner the practical course on the guidelines laid down from time to time by Academic Council on the recommendation of Board of studies and has been recorded his/her observations in the laboratory journal and written a report on each exercise performed. Every journal is to be checked and signed periodically by a member teaching staff and certified by the Head of the Department at the end of staff and certified by the Head of the Department at the end of the year. Candidates are to produce their journal at the time of practical examination. Candidates have to visit the least

Two (2) places of Microbiological interest (Pharmaceutical industry, Dairy, Research institutes etc.) and submit the report of their visit at the time of examination. The report should be duly certified by the Head of the Department.

Nature of question paper and distribution of marks for B.Sc. Part III Microbiology Practical Examination

Practicals I, II, III & IV

Q.1 Major Experiment	20 Marks
Q. 2 Minor Experiment	15 Marks
Q.3 Journal	05 Marks

SPOTTING **10 Marks**

VIVA-VOCE **10 Marks**
(On practicals not attempted in the examination)

TOUR REPORT: **20 MARKS**



Estd. 1962
"A" Accredited by
NAAC(2021)
With CGPA 3.52

SHIVAJI UNIVERSITY, KOLHAPUR - 416004,
MAHARASHTRA

PHONE:EPABX-2609000, www.unishivaji.ac.in, bos@unishivaji.ac.in

शिवाजी विद्यापीठ, कोल्हापूर - ४१६००४, महाराष्ट्र

दूरध्वनी - ईपीएबीएक्स - २६०९०००, अभ्यासमंडळे विभाग दूरध्वनी विभाग ०२३१-२६०९०९३/९४



Ref./SU/BOS/Com & Mgt./

Date : 23/09/2022

To,

The Principal
All Affiliated (Commerce & Management) Colleges/ Institutions,
Shivaji University, Kolhapur

No 00438

Subject : Regarding syllabi of B. Com. Part-I (CBCS) (Sem. I & II) degree programme under the Faculty of Commerce & Management as per National Education Policy, 2020

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi of **B. Com. Part-I (Sem. I & II) (CBCS)** under the Faculty of Commerce & Management as per National Education Policy, 2020

This syllabi shall be implemented from the academic year **2022-2023** onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

By: Registrar

Encl : As above

Copy to,

1. Dean, Faculty of Commerce & Management
2. Chairman, BOS under Faculty of Commerce & Management
3. Director, BOEE
4. Appointment Section
5. P. G. Admission Section
6. B. Com. Section
7. Affiliation Section (U.G./P.G.)
8. Computer Center/I.T.
9. Eligibility Section
10. Distance Education
11. P.G. Seminar Section

for information

for information and necessary action.

SHIVAJI NIVERSITY KOLHAPUR



ESTD. 1962
NAAC A++ Grade

Bachelor of Commerce (B. Com.)
Under the Faculty of Commerce and
Management Choice Based Credit System (CBCS)
(Regulations in accordance with **National Education**
Policy with effect from Academic Year 2022-23)

Shivaji University, Kolhapur

Bachelor of Commerce (B. Com.)

Under the Faculty of Commerce and Management

Choice Based Credit System (CBCS)

(Regulations in accordance with National Education Policy with effect from Academic Year 2022-23)

- 1. Implementation of Revised guidelines and rules:** The revised guidelines and rules shall be implemented gradually as mentioned below:

Level	Programme		From Academic Year
Undergraduate Programme:			
Level 5	Undergraduate Certificate (One year or two semesters)	B. Com. Part-I	2022-23
Level 6	Undergraduate Diploma (Two years or four semesters)	B. Com. Part-II	2023-24
Level 7	Bachelor's Degree (Three years or six semesters)	B. Com. Part-III	2024-25
Level 8	Bachelor's Degree with Honours/ Research (Four years or eight Semesters)	B. Com. Part-IV	2025-26

(If the candidate want to exit after a certain level, the Awards after completing specific level will be: Undergraduate Certificate in Commerce, Undergraduate Diploma in Commerce, B. Com. And B. Com. (Hon./Research) for Level-5, Level-6, Level-7 and Level-8 respectively. Other provisions for multiple entry and exit as per the university's rules and regulations are applicable).

- 2. Eligibility Criteria:** As per Ordinance – O. B. Com.1

- 3. Pattern of B. Com. Programme:** Combination of internal assessment and semester-end examination for B. Com. will be 40:10 pattern shall be applicable for each theory paper in each semester wherein 40 marks shall be for University Semester end examination and 10 marks for internal assessment except Environmental Studies. Only for Environmental Studies in Semester IV, 70 marks shall be for University examination for theory paper and 30 marks for project work.

- 4. Weightage:** There shall be Three Year B. Com. Programme with 160 Credits. The candidate wish to attempt for Four Year B. Com. (Hon./Research) may opt for 4th year which will have 38 credits, hence, Four Year B. Com. Programme will require 198 credits. (Please refer the university regulations and structure of the programme for details).

5. Credit distribution chart for B. Com. Programme:

For 3 year B. Com. Programme:

Course Name	Total Courses	Total Credits	% of total credits
DSC: Discipline Specific Course	22	88	55%
AECC : Ability Enhancement Compulsory Courses	07	28	17.5%
GEC: Generic Elective Courses	04	16	10%
DSE: Discipline Specific Elective	04	16	10%
SEC: Skill Enhancement Courses	07	12	7.5%
TOTAL	44	160	100%

For 4year B. Com. Programme:

Course Name	Total Courses (Papers)	Total Credits	% of total credits
DSC: Discipline Specific Courses	26	104	52.53
AECC : Ability Enhancement Compulsory Courses	07	28	14.14
GEC: Generic Elective Courses	04	16	8.08
DSE: Discipline Specific Electives- Dissertation	01	04	14.14
Other DSEs	06	24	
SEC: Skill Enhancement Courses	09	16	8.08
Internship/Apprenticeship	01	06	3.03
TOTAL	54	198	100%

6. Scheme of Examination:

The Question paper in each Semester for each theory course (paper) for B. Com. (all Semesters) shall be of 40 marks. The question paper for Environmental Studies for Semester IV shall be of 70 marks for theory and 30 marks for project work. Total marks for each course shall be based on continuous assessments and semester-end examination. Combination of internal assessment and semester-end examination for B. Com. will be as follows:

Total marks for each course	= 50
Internal Assessment	= 10
Semester-end Examination	= 40

Internal Assessment Process shall be as follows:

- (a) The Internal Assessment should be conducted after completing 50% of syllabus of the course/s.
- (b) In case a student has failed to attend internal assessment on scheduled date, it shall be deemed that the student has dropped the test. However, in case of student who could not take the test on scheduled date due to genuine reasons, such a candidate may appeal to the Programme Coordinator/Principal/Head of the Department. The Programme coordinator/Principal/Head of the Department in consultation with the concerned teacher shall decide about the genuineness of the case and decide to conduct special test to such candidate on the date fixed by the concerned teacher but before commencement of the concerned semester-end examination.

The outline for continuous internal assessment activities shall be as under:

Outline for continuous internal assessment activities

Level	Semester	Activities Per Semester	Marks
5	Semester – I	Assignment	10 marks
	Semester – II	Unit Test	10 marks
6	Semester – III	Group Activity	10 marks
	Semester – IV	Case Study/Oral examination	10 marks
7	Semester – V	Field Work/Project Work	10 marks
	Semester – VI	Field Work/Project Work/Seminar	10 marks
8	Semester – VII	Case Study/Field Work/Project Work	10 marks
	Semester – VIII	Case Study/Field Work/Project Work	10 marks

Outline for continuous internal assessment activities for Distance Mode

Level	Semester	Activities Per Semester	Marks
5	Semester – I	Assignment	10 marks
	Semester – II	Unit Test	10 marks
6	Semester – III	Group Activity / Assignment	10 marks
	Semester – IV	Case Study / Oral Examination	10 marks
7	Semester – V	Field Work / Project Work / Assignment	10 marks
	Semester – VI	Field Work / Project Work / Assignment	10 marks

7. Ordinances regarding the examination : O. B.Com. 2, 3 and 4 shall prevail.

8. Duration of Semester-end Examination for each theory paper: The duration of Semester-end Examination for each theory course of 40 marks shall be of two hours except Environmental Studies (Semester IV, Examination) which shall be of 3 hours for 70marks.

9. Equivalence of papers and chances for the students in previous-Semester pattern:

Two additional chances shall be provided for the repeater students of old B. Com. immediate after their Semester-VI or VIII. After that the students concerned shall have to appear for the Examination as per this revised pattern. Equivalence of papers shall be provided as per revised syllabus for the pattern in accordance with NEP.

10. Standard of Passing: The Standard of passing shall be 35%. For B. Com. (all Semesters) the student shall have to score 14 marks out of 40 in each theory course and 4 marks out of 10 in each course for internal assessment. There shall be a separate head of passing in Theory and Internal Examination. However, ATKT rules shall be made applicable in respect of Theory courses (University examination) only. For Environmental Studies (Semester IV, Examination) the student shall have to score marks 25 marks out of 70 in theory course and 10 marks out of 30 for project work.

Gradation Chart:

Marks Obtained	Numerical Grade (Grade Point)		CGPA	Letter Grade
Absent	0 (zero)		-	-
0 – 34	0 to 4		0.0 – 4.99	F (Fail)
35 – 44	5		5.00 – 5.49	C
45 – 54	6		5.50 – 6.49	B
55 – 64	7		6.50 – 7.49	B+
65 – 74	8		7.50 – 8.49	A
75 – 84	9		8.50 – 9.49	A+
85 – 100	10		9.50 – 10.0	O (Outstanding)

Note:

1. Marks obtained ≥ 0.5 shall be rounded off to next higher digit.
2. The SGPA & CGPA shall be rounded off to 2 decimal points.

Calculation of SGPA & CGPA:

1. Semester Grade Point Average (SGPA)

SGPA = $\frac{\text{Course credits} \times \text{Grade points obtained of a semester}}{\text{Course credit of respective semester}}$

2. Cumulative Grade Point Average (CGPA)

CGPA = $\frac{\text{Total credits of a semester} \times \text{SGPA of respective semester of all semesters}}{\text{Total course credits of all semesters}}$

11. Result - The result of each semester shall be declared as Pass or Fail with grade/ grade points.

12. Revised Rules - These revised rules shall be gradually implemented with effect from the academic year 2022-23 for B.Com. Degree programme. However the existing (i.e. pre-revised) rules shall remain in force for the students of old semester pattern during the transition period.

Rules for B. Com. Programme:

R. B. Com. 1

The Three Year B. Com. Programme shall consist of 6 semesters. However, The candidate wish to attempt for Four Year B. Com. (Hon./Research) may opt for 4th year which will have 38 credits, hence, Four Year B. Com. Programme will require 198 credits. (Please refer the university regulations and structure of the programme for details).

Examination shall be held at the end of each semester.

R. B. Com. 2

Structure of B. Com. Programme is given along with syllabus as shown below:

Structure - I for B. Com. Semester I & II

Structure - II for B. Com. Semester III & IV

Structure - III for B. Com. Semester V & VI

Structure- IV for B. Com. Semester VII & VIII

R. B. Com. 3

The List of courses which are included in the structure of B. Com. Programme is also given along with syllabus of the respective syllabus.

- (i) for B. Com. Semester I & II
- (ii) for B. Com. Semester III & IV
- (iii) for B. Com. Semester V & VI
- (iv) for B. Com. Semester VII & VIII

R. B. Com. 4

(A) Compulsory Civic Courses(CCC) (Non-Credit Courses) :

For Semester I and Semester V there shall be Compulsory Civic Courses under self-study mode which are as follows:

Semester I: CCC- I: Democracy, Elections and Good Governance

Semester- V: CCC- II: Constitution of India and Local Self Government

(B) Skill Enhancement Courses(SECs): For every semester, there will be 2 credit SECs as per the university regulations 2022.

R. B. Com. 5

Equivalence of papers and chances for the students in previous- Semester

pattern:Two additional subsequent chances shall be provided for the repeater students of old B. Com. Part I- Semester I & II in the immediate next two sessions. After this the students concerned shall have to appear for the Examination as per this revised syllabus. Equivalence of papers shall be provided as per revised syllabus for this pattern according to NEP 2020.

R. B. Com. 6

The detailed syllabi for the various courses under this pattern shall be as shown in the appendix and shall be subject to such revision, modification etc. as may be made by the Academic Council from time to time on the recommendation of the Boards of Studies in different courses. The text-books and reference books for the various courses shall be those as prescribed by the Academic Council from time to time on the recommendations of the respective Boards of Studies.

R. B. Com. 7

The medium of instruction for the Three Year (Six Semester) B.Com./Four Year B. Com. Degree Programme may be either Marathi or English. A candidate shall have an option of answering question papers at B.Com. Examination will be either in English or in Marathi for all courses except English, Accountancy and Business Statistics. Courses on languages (Hindi, Marathi and Urdu) will be in the respective languages as a medium of instruction and for examination.

R. B. Com. 8

- i. The Principal of the college may permit a student to change his optional subject/ subjects in the first term only before submission of dully filled University Examination form.
- ii. If a candidate wishes to change the elective (DSE) course (subject) at the B.Com. Semester V examination, student will have to keep one additional terms for the changed course(subject).
- iii. If a candidate fails in the elective (DSE) course (subject) at the B.Com. Semester V & VI examination and wish to change elective (DSE) course (subject), student will have to keep two additional terms for the changed course (subject).

R. B. Com. 9

The Principal of the college has to certify the attendance and the examination form of the candidate as per the Ordinance O. 31 and O. 37. A candidate has to submit University examination form as per the schedule and dates prescribed by the University for every Examination.

R. B. Com. 10

The Scheme of the Physical Education has been made operative for B. Com. Part-I. The benefit of marks, obtained by the students in Physical Education Tests (of 10 marks) conducted by the University authorities shall be as under:

1. If a student fails in up to four heads of passing of University examination (Theory / Practical) and having passed in all the remaining heads of passing, the marks obtained by him in the Physical Education Test shall be added to maximum up to four heads of passing in which he has failed as the case may be. A student getting the benefit of Physical Education marks should not be given advantage of any other Ordinance. The Physical Education Marks shall not be considered for the award of Class and for deciding merit.
2. If as a result of addition of Physical Education marks a student does not pass the examination the marks obtained by him in Physical Education shall not be considered.
3. The marks of Physical Education obtained by the unsuccessful students at the B. Com. Part-I semester Examination shall be carried forward for their

subsequent attempt/s.

4. The marks obtained in Physical Education shall not be considered for earning exemption in a subject of head of passing, but the marks will be carried forward for availing the benefit at the subsequent attempts.
5. The marks secured by the students under the Physical Education scheme shall be added to the total of his marks in the Examination irrespective of the fact of his passing or failure in the examination. The Physical Education marks shall be shown as "Total +P. E.Marks".
6. The Physical Education Test shall be conducted in the Second Semester.

R. B. Com. 11

All Semester-end Examinations for B. Com. Part-I, II, III and IV shall be held twice in a year in two sessions i.e. April / May and October / November.

R. B. Com. 12

- a) A candidate desires to seek B. Com. Degree in another course (subject), shall be permitted to do so. Such candidate may appear at B. Com. Semester V & VI Examination on the submission for fresh admission. Such a candidate need not appear again for Discipline Specific Courses (DSCs).
- b) The Candidate as above (in clause 'a') shall not be eligible for a second degree and a class, a prize, scholarship, medal or any other award. The candidate will get the benefit of new degree in new course (subject) only if candidate surrenders his first degree.

R. B. Com. 13

- a) The result of the B.Com. Semester I & II examination shall be declared publicly in two categories (i) candidates who have passed the B. Com. Semester-I & II examination and (ii) candidates who are allowed to proceed to the B.Com. Semester- III & IV.
- b) The result of the B.Com. Semester III & IV examination shall be declared publicly in two categories. (i) Candidate who have passed the B.Com. Semester-III & IV examination in addition to the remaining papers, if any of previous examination, (ii) candidates who are allowed to proceed to the next Semester.
- c)

- (i) If a candidate fails in all the courses (subject heads) of passing of Semester-I shall be allowed to proceed to Semester II.
- (ii) If a candidate fails in all the courses (subject heads) of passing of Semester-III shall be allowed to proceed to Semester-IV.
- (iii) If a candidate fails in all the courses (subject heads) of passing of Semester-V shall be allowed to proceed to Semester-VI.
- (iv) No candidate shall be allowed to proceed to Semester-V unless candidate has cleared Semester-I & II in all courses (Subjects).
- (v) ATKT rules are applicable for 2nd and 4th Sem.

R. B. Com. 14

- (A) The Results of the Examination will be declared on the basis of marks obtained, Grade points obtained, Credit points, Status, Percentage of marks, Result, SGPA & CGPA with numerical grade point and letter grade. The list of Courses, course code, Paper number of programme, numerical grade & letter grade table and calculation of SGPA and CGPA table shall be mentioned on the backside of mark-sheet.
- (B) The result of B. Com. Program (Semester-I to VI) shall be declared in Grades by considering SGPA & CGPA (with percentage) based on the performances of all the courses at respective semesters. The award of scholarships and prizes for the B.Com. Program shall be determined on the basis of the aggregate performance of the candidate at Semester-I to VI examination.

R. B. Com. 15

Standard of Passing:

- A) To pass the B.Com. Degree Examination, a candidate shall be required to pass in Semester I, II, III, IV, V & VI Examinations.
 - a) To pass the each semester of B.Com. Semester-I & II Examination a candidate shall be required to obtain a minimum of 35% of the total marks in each head of passing i. e. 18 marks out of 50.
 - b) To Pass each Semester of the B. Com. Semester-II & IV Examination a candidate shall be required to obtain a minimum of 35% of the total marks in each head of passing i.e. 18 marks out of 50 (except Environmental Studies).
 - c) For Environmental Studies a candidate shall be required to obtain minimum 25 marks out of 70 for theory paper examination & minimum 10 marks out of 30 for Project work. There shall be separate head of passing for Theory and Project work examinations.
 - d) To pass each Semester Examination a candidate shall be required to obtain a

minimum of 35% of the totalmarks.

- e) A Candidate shall have to obtain 14 marks out of 40 for university examination
 - f) i.e. theory and 4 marks out of 10 in the internal examination in Semester-V & VI.
- If the candidate fails/absent in internal examination then candidate has to pass the internal examination, the provision in the university regulations 2022 is applicable.

B) For Three Year B. Com. Degree: Those of the successful candidates who obtain 45% or more of the aggregate marks in Parts-I, II& III semester Examinations, (i.e. Semester-I to VI aggregate) shall be declared to have passed the B.Com. Degree Examinations in Second Class and those obtaining 60% or more of the aggregate marks in Parts-I, II & III Examinations (i.e. Semester-I to VI aggregate) shall be declared to have passed the B.Com. Degree Examinations in First Class and those obtaining 70% or more of the aggregate marks in Parts-I, II & III (i.e. Semester-I to VI aggregate) shall be declared to have passed the B.Com. Degree Examination in First Class with Distinction.

C) For Four Year B. Com. with (Hon./Research) Degree: Those of the successful candidates who obtain 45% or more of the aggregate marks in Parts-I, II, III & IV Semester Examinations, (i.e. Semester-I to VIII aggregate) shall be declared to have passed the B.Com. with (Hon./Research)Degree Examinations in Second Class and those obtaining 60% or more of the aggregate marks in Parts-I, II, III & IV Semester Examinations, (i.e. Semester-I to VIII aggregate) shall be declared to have passed the B.Com.with (Hon./Research) Degree Examinations in First Class and those obtaining 70% or more of the aggregate marks in Parts-I, II, III & IV Semester Examinations, (i.e. Semester-I to VIII aggregate) shall be declared to have passed the B.Com.with (Hon./Research) Degree Examination in First Class with Distinction.

D) A.T.K.T.: ATKT rules as per the university Regulations 2022 will be applicable.

R. B. Com. 17

A candidate who has satisfactorily completed all courses at Semester-I of B. Com. of the Universities in the State of Maharashtra shall be allowed to join for the Semester II of the B.Com. Programme in this university. However, a candidate who has satisfactorily kept one term in any of the Universities in the State of Maharashtra for B.Com.Semester-I examination shall not be allowed to join for the Semester II of the B.Com. Programme in this university unless and until the candidate has to clear all the courses (papers) of Semester-I from that university.

CBCS R. B. Com. 18

- (a) A candidate passing Part-I or II Semester Examinations of the B.Com. Degree programme under CBCS of the other Statutory Universities in State of Maharashtra can take admission to next semester of Shivaji University and the marks of earlier semesters of previous Statutory University be converted in proportion to Shivaji University, Marks structure and grades be awarded accordingly.
- (b) Multiple entry and exit rules as per university Regulations 2022 and Academic Bank of Credit Regulations are applicable.

CBCS R. B. Com. 19**Exemption of courses (subjects):**

- a) A candidate who wish to admit for B.Com. and already passed Bachelor of Arts and Bachelor of Science of this University with English, Marathi or Kannada or Urdu or Hindi courses (subjects) are not necessary to appear B.Com. Examination again for same subject.
- b) A candidate who has passed Bachelor of Law (L.L.B.) of any other statutory University in the State of Maharashtra passing candidate be exempted for the course Business Regulatory Framework at B.Com. Semester-V & VI.
- c) A candidate claiming exemptions as stated above shall not be eligible for a Class, however a candidate appearing for all the courses (papers) of B.Com. Semester-I to VI shall be eligible for a class.
- d) However, the above mentioned rule shall not be applicable for other University student.

CBCS R. B. Com. 20

Exemption of courses (subjects):

- a) A candidate who wish to admit for B.Com. and already passed Bachelor of Arts of this University with Economics course (subject) are not necessary to appear B.Com. Examination again for same subject.
- b) A candidate claiming exemptions as stated above shall not be eligible for a Class, however a candidate appearing for all the courses (papers) of B.Com. Semester-I to VI shall be eligible for a class.
- c) However, the above mentioned rule shall not be applicable for other University student.

(Note: The concessions given above are on reciprocal basis).

CBCS R. B. Com. 21

- a) A candidate who has successfully completed the B.Com. Semester-I & II or Semester-III & IV Examination (of any HEIs registered on ABC portal) as an external/distance mode will be allowed for B. Com. Semester III & IV or Semester-V & VI respectively to join the college as a regular candidate as per the provisions of ABC regulation and the university Regulations 2022. A candidates as an external/distance mode from HEIs which are not registered on ABC portal, will not be allowed to join the college as a regular candidate.
- b) A candidate who has appeared for the B.Com. Semester-I & II or Semester-III & IV Examination of this or any other University as a regular candidate will be allowed for B. Com. Semester-III & IV or Semester-V & VI respectively to join distance mode. Such candidate shall be treated as an external/distance mode candidate.
- c) A Candidate who has passed in any of the heads of passing will be allowed to appear again in that head provided the conditions given in the university Regulations 2022 are fulfilled.
- d) 'Practical' will have a separate head of passing.
- e) For the students from distance mode, the same syllabi, examination system (such as semester system, scheme of marking, schedule of examination and nature of question paper) shall be made applicable as per regular B.Com. Programme. Those students registered as external/distance mode candidate shall have to submit **one home assignment** for each course (paper) (in each semester) carrying 10 marks as a part of internal evaluation system, to the respective Study Centre notified and approved by the university.

CBCS R. B. Com. 22

- a) The course of studies and syllabi and books prescribed/ recommended under it and the standard for passing at the examination for the Degree of Commerce for candidates appearing for the same as external/distance mode candidates shall be identical with those for the regular students of the University appearing for the examination.
- b) An external/distance mode student shall not offer at an examination any of the courses(subjects)forwhichthereisnoteachingprovisioninanyoftheaffiliated colleges of the University.

B. Com. Programme Semester-I & II

STRUCTURE For Level 5 of B. Com.											
SEMESTER-I											
Sr. No.	TEACHING SCHEME				PRACTIAL (PR)	EXAMINATION SCHEME					
	THEORY (TH)					Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of lectures	Hours	Credits	-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
	1	DSC-1	4	3.2 + 0.8*	4	NO PRACTICAL	2	40	14	Seminar	10
2	DSC-2	4	3.2 + 0.8*	4	2		40	14	10		04
3	DSC-3	4	3.2 + 0.8*	4	2		40	14	10		04
4	GEC-A1	4	3.2 + 0.8*	4	2		40	14	10		04
5	GEC-B1	4	3.2 + 0.8*	4	2		40	14	10		04
6	AECC-1	4	3.2 + 0.8*	4	2		40	14	10		04
7	SEC-1 (VBC-1)	2	2*	2	1		25	18			
8		-	-	-	-		-	-			
Total		26	20.2 + 5.8* = 26	26	-	265	-	60 SEE + IA = 265 + 60 = 325			
SEMESTER-II											
Sr. No.	TEACHING SCHEME				PRACTICAL (PR)	EXAMINATION SCHEME					
	THEORY (TH)					Semester-end Examination			Internal Assessment		
	Course Type	No. of lectures	Hours	Credits	-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
	1	DSC-4	4	3.2 + 0.8*	4	NO PRACTICAL	2	40	14	Internal	10
2	DSC-5	4	3.2 + 0.8*	4	2		40	14	10		04
3	DSC-6	4	3.2 + 0.8*	4	2		40	14	10		04
4	GEC-A2	4	3.2 + 0.8*	4	2		40	14	10		04
5	GEC-B2	4	3.2 + 0.8*	4	2		40	14	10		04
6	AECC-2	4	3.2 + 0.8*	4	2		40	14	10		04
7	SEC-2 (VBC-2)	2	2*	2	1		25	9			
Total		26	19.2 + 6.8* = 26	26	-		265	-	60 SEE + IA = 265 + 60 =325		
Grand Total		52	52	52	-	-	530	-	SEE + IA = 530 + 120 = 650		
For completing Level-5 Total Credits				52							

(* Independent students' workload)

B. Com. Programme Semester-III & IV

STRUCTURE For Level 6 of B. Com.												
SEMESTER-III												
Sr. No.	TEACHING SCHEME				PRACTIAL (PR)	EXAMINATION SCHEME						
	THEORY (TH)					Semester-end Examination			Internal Assessment			
	Course Type	No. of lectures	Hours	Credits		-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
1	DSC-7	4	3.2 + 0.8*	4	NO PRACTICAL	2	40	14	Seminar	10	04	
2	DSC-8	4	3.2 + 0.8*	4		2	40	14		10	04	
3	DSC-9	4	3.2 + 0.8*	4		2	40	14		10	04	
4	DSC-10	4	3.2 + 0.8*	4		2	40	14		10	04	
5	AECC-3	4	3.2 + 0.8*	4		2	40	14		10	04	
6	AECC-4	4	3.2 + 0.8*	4		2	40	14		10	04	
7	AECC-5 (EVS)	-	-	-		-	-	-	-			
8	SEC-3	2	2	2		1	25	9				
Total		26	19.2 + 6.8* = 26	26			265				60	
						SEE + IA = 265 + 60 = 325						
SEMESTER-IV												
Sr. No.	TEACHING SCHEME				PRACTICAL (PR)	EXAMINATION SCHEME						
	THEORY (TH)					THEORY			Internal Exam			
	Course Type	No. of lectures	Hours	Credits		-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
1	DSC-11	4	3.2 + 0.8*	4	NO PRACTICAL	2	40	14	Internal	10	04	
2	DSC-12	4	3.2 + 0.8*	4		2	40	14		10	04	
3	DSC-13	4	3.2 + 0.8*	4		2	40	14		10	04	
4	DSC-14	4	3.2 + 0.8*	4		2	40	14		10	04	
5	AECC-6	4	3.2 + 0.8*	4		2	40	14		10	04	
6	AECC-7	4	3.2 + 0.8*	4		2	40	14		10	04	
7	AECC-8 (EVS)	4	3.2 + 0.8*	4		3	70 + 30#	25 + 10				
8	SEC-4	2	2	2		1	25	9				
Total		30	22.4 + 7.6* = 30	30			365				60	
						SEE + IA = 365 + 60 = 425						
Grand Total		56	56	56	-	-	750	-	SEE + IA =630 + 120 =750			
For completing Level-6 Total Credits				108								

(* Independent students' workload, # 30 Marks Project Total 100 Marks)

DSCs: Discipline Specific Courses: All courses (subjects) are compulsory.
AECC: Ability Enhancement Compulsory Course: All courses (subjects) are compulsory.
AECC (EVS): Ability Enhancement Compulsory course- Environmental Studies.
. SEC/VBC: Skill Enhancement Courses/Value Based Course -A candidate has to complete SEC/VBC has 2 credit course at every semester- For first semester-I Democracy, Election and good governance. And for second semester constitution of India and local Self Government

B. Com. Programme Semester-V &VI

STRUCTURE For Level 7 of B. Com.												
SEMESTER- V												
Sr. No.	TEACHING SCHEME				PRACTIAL (PR)	EXAMINATION SCHEME						
	THEORY (TH)					Semester-end Examination			Internal Assessment			
	Course Type	No. of lectures	Hours	Credits		-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
	1	DSC-15	4	3.2 + 0.8*		4	NO PRACTICAL	2	40	14	Seminar	10
2	DSC-16	4	3.2 + 0.8*	4	2	40		14	10	04		
3	DSC-17	4	3.2 + 0.8*	4	2	40		14	10	04		
4	DSC-18	4	3.2 + 0.8*	4	2	40		14	10	04		
5	DSE-1	4	3.2 + 0.8*	4	2	40		14	10	04		
6	DSE-2	4	3.2 + 0.8*	4	2	40		14	10	04		
7	SEC-5	2	2	2	1	25		9				
Total		26	19.2 + 6.8 = 26	26	-	265	-	60 SEE + IA = 265 + 60 = 325				
SEMESTER- VI												
Sr. No.	TEACHING SCHEME				PRACTICAL (PR)	EXAMINATION SCHEME						
	THEORY (TH)					THEORY			Internal Exam			
	Course Type	No. of lectures	Hours	Credits		-	PAPER HOURS	MAX	MIN	Internal	MAX	MIN
	1	DSC-19	4	3.2 + 0.8*		4	NO PRACTICAL	2	40	14	Internal	10
2	DSC-20	4	3.2 + 0.8*	4	2	40		14	10	04		
3	DSC-21	4	3.2 + 0.8*	4	2	40		14	10	04		
4	DSC-22	4	3.2 + 0.8*	4	2	40		14	10	04		
5	DSE-3	4	3.2 + 0.8*	4	2	40		14	10	04		
6	DSE-4	4	3.2 + 0.8*	4	2	40		14	10	04		
7	SEC-6	2	2	2	1	25		9				

Total	26	19.2 + 6.8 = 26	26		-	265	-	60 SEE + IA = 265 + 60 = 325
Grand Total	52	52	52	-	-	530	-	SEE + IA = 530 + 120 = 650
For completing Level-7 Total Credits			160					

(* Independent students' workload)

DSCs: Discipline Specific Courses: All courses (subjects) are compulsory.
DSE : Discipline Specific Elective : Candidate has to select any one course (subject) which consists of Paper I to IV. Paper I & II for Sem-V and Paper III & IV for Sem- VI.
SEC/VBC: Skill Enhancement Courses/Value Based Course -A candidate has to complete SEC/VBC has 2 credit courses at every semester.
Non-Credit Self Study Course:

R. B. Com. 3: List of Courses

(i) For B. Com. Sem- I & II (Level-5)

Semester I		Semester II	
Course Code	Course (Subject)	Course Code	Course (Subject)
Discipline Specific Courses			
DSC-1	Financial Accounting Paper-I	DSC-4	Micro Economics Paper- II
DSC-2	Micro Economics Paper- I	DSC-5	Financial Accounting Paper-I I
DSC-3	Management Functions & Applications Paper-I	DSC-6	Management Functions & Applications Paper- II
Group A			
GEC-AA1	Principles of Marketing Paper- I	GEC-AA2	Principles of Marketing Paper- II
GEC-AB1	History of Civilization Paper- I	GEC-AB2	History of Civilization Paper- II
GEC-AC1	Marathi Paper- I	GEC- AC2	Marathi Paper- II
GEC-AD1	Global Finance Paper- I	GEC- AD2	Global Finance Paper- II
GEC-AE1	Hindi Paper- I	GEC- AE2	Hindi Paper- II
GEC-AF1	Urdu Paper- I	GEC- AF2	Urdu Paper- II
GEC-AG1	Kannada Paper- I	GEC- AG2	Kannada Paper- II
GEC-AH1	Tax Procedure & Practice Paper I (Indian Incom Tex System and Incom Tex Law)	GEC-AH2	Tax Procedure & Practice Paper-III (Indian Incom Tax System and Incom Tax Law)
Group B			
GEC- BA1	Business Mathematics Paper- I	GEC-BA2	Business Mathematics Paper- II
GEC- BB1	Insurance Paper- I	GEC-BB2	Insurance Paper- II
GEC- BC1	Geography Paper I	GEC-BC2	Geography Paper II
GEC- BD1	Foreign Trade Paper – I	GEC-BD2	Foreign Trade Paper – II
GEC-BE1	Tax Procedure & Practice Paper II (Goods and Services Tax)	GEC-BE2	Tax Procedure & Practice Paper IV (Maharashtra State Tax on Profession Trade and Calling and Employment Act, 1975 and GST Act 2017)
GEC-BF1	NCC (Military Science) Paper-I (Basic Training in NCC)	GEC-BF2	NCC (Military Science) Paper-I (Adventure Activities in NCC)
Ability Enhancement Compulsory Course			
AECC-C1	Business Communication Paper- I	AECC- C2	Business Communication Paper- II
Skill Enhancement Courses			
SEC-1 (VBC-1)	Skill Enhancement Course/ Value Based Courses -1 Democracy, Election, Good Governance	SEC-2 (VBC-2)	Skill Enhancement Course/ Value Based Courses -2 Constitution of India & Local Self Government

Note :

- 1. DSC:** Discipline Specific Course: All courses (subjects) are compulsory.
- 2. GEC:** Generic Elective Course: Candidate has to select any one course (Subject) from Group A& any one from Group B.
- 3. AECC:** Ability Enhancement Compulsory Course: All courses (subjects) are compulsory.

(ii) For B. Com. Semester-III & IV (Level-7)

Semester III		Semester IV	
Course Code	Course (Subject)	Course Code	Course (Subject)
Core course			
DSC-7	Corporate Accounting Paper- I	DSC-11	Corporate Accounting Paper- II
DSC-8	Fundamentals of Entrepreneurship Paper- I	DSC-12	Fundamentals of Entrepreneurship Paper- II
DSC-9	Money and Financial System Paper- I	DSC-13	Money and Financial System Paper- II
DSC-10	Macro Economics Paper- I	DSC-14	Macro Economics Paper- II
Ability Enhancement Compulsory Course			
AECC-3	Business Communication Paper- III	AECC-6	Business Communication Paper- IV
AECC-4	Business Statistics Paper- I	AECC-7	Business Statistics Paper- II
AEC-5 (EVS)	Environmental Studies	AEC-8(EVS)	Environmental Studies
SEC-3	Skill Enhancement Course-3	SEC-4	Skill Enhancement Course-4

Note :

1. **DSC:** Discipline Specific Course: All courses (subjects) are compulsory.
2. **AECC:** Ability Enhancement Compulsory Course: All courses (subjects) are compulsory.
3. **AECC (EVS):** Ability Enhancement Compulsory Course- Environmental Studies
4. **SEC-** Skill Enhancement Course

(iii) For B. Com. Semester-V & VI (Level-7)

Semester V		Semester VI	
Course Code	Course (Subject)	Course Code	Course (Subject)
Discipline Specific Courses			
DSC-15	Modern Management Practices Paper- I	DSC-19	Modern Management Practices Paper- II
DSC-16	Business Regulatory Framework Paper- I	DSC-20	Business Regulatory Framework Paper- II
DSC-17	Co – Operative Development Paper- I	DSC-21	Co – Operative Development Paper- II
DSC-18	Business Environment Paper- I	DSC-22	Business Environment Paper- II
Discipline Specific Elective			
DSE-A1	Advanced Accountancy Paper- I	DSE-A3	Advanced Accountancy Paper- III

DSE-A2	Advanced Accountancy Paper- II	DSE-A4	Advanced Accountancy Paper- IV
DSE-B1	Industrial Management Paper- I	DSE-B3	Industrial Management Paper- III
DSE-B2	Industrial Management Paper- II	DSE-B4	Industrial Management Paper- IV
DSE-C1	Advanced Costing Paper – I	DSE-C3	Advanced Costing Paper - III
DSE-C2	Advanced Costing Paper –II	DSE-C4	Advanced Costing Paper -IV
DSE-D1	Taxation Management Paper- I	DSE-D3	Taxation Management Paper- III
DSE-D2	Taxation Management Paper- II	DSE-D4	Taxation Management Paper- IV
DSE-E1	Public Finance Paper- I	DSE-E3	Public Finance Paper- III
DSE-E2	Public Finance Paper- II	DSE-E4	Public Finance Paper- IV
DSE-F1	Insurance Paper- I	DSE-F3	Insurance Paper- III
DSE-F2	Insurance Paper- II	DSE-F4	Insurance Paper- IV
DSE-G1	Marketing Paper- I	DSE-G3	Marketing Paper- III
DSE-G2	Marketing Paper- II	DSE-G4	Marketing Paper- IV
DSE-H1	Advanced Banking Paper- I	DSE-H3	Advanced Banking Paper- III
DSE-H2	Advanced Banking Paper- II	DSE-H4	Advanced Banking Paper- IV
DSE-I 1	Rural Economics and Co-Operation Paper- I	DSE-I 3	Rural Economics and Co-Operation Paper- III
DSE-I 2	Rural Economics and Co-Operation Paper- II	DSE-I 4	Rural Economics and Co-Operation Paper- IV
DSE-J1	Advanced Statistics Paper- I	DSE-J3	Advanced Statistics Paper- III
DSE-J2	Advanced Statistics Paper- II	DSE-J4	Advanced Statistics Paper- IV
DSE-K1	E-Commerce Paper- I	DSE-K3	E-Commerce Paper- III
DSE-K2	E-Commerce Paper- II	DSE-K4	E-Commerce Paper- IV
Skill Enhancement Courses			
SEC-5	Skill Enhancement Course-6	SEC-6	Skill Enhancement Course-7

Note:

- DSC: Discipline Specific** Course: All courses (subjects) are compulsory.
- DSE: Discipline Specific Elective:** Candidate has to select any one course group (subject) which consists of Paper I to IV. Paper I & II for Semester-V and Paper III & IV for Semester-VI.
- SEC: Skill Enhancement Course**

Ordinances:

O. B. Com.1	<p>i) The students passing the Higher Secondary School Certificate Examination with Commerce stream or Vocational subjects with Commerce stream conducted by the Maharashtra State Board of Higher Secondary Education Pune, shall be allowed to enter upon the B.Com. Part-I Course.</p> <p style="text-align: center;">OR</p> <p>ii) An Examination of any other statutory University or an examining Body recognised as equivalent thereto.</p> <p>iii) No candidate shall be allowed to the B.Com. Part-I Examination unless he has satisfactorily kept two terms for the course at a College affiliated to this University.</p>
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O. B. Com.-2	<p>i) No candidate shall be allowed to enter upon the course for the B.Com. Part-II Examination unless he has passed the B.Com. Part-I Examination or the First Year Examination of the Three Year Integrated B.Com. Degree Course of this University or an examination of any other Statutory University recognised as equivalent thereto. However a candidate passing in all heads of passing or a candidate passing in all heads of passing except four heads of University (Theory/ Practical) Examination (Sem.-I & II taken together) of this University shall be permitted to enter upon the course of B.Com.Part-II.</p> <p>ii) No candidate shall be admitted to B.Com.Part-II Examination unless he has satisfactorily kept two terms for the same at a College affiliated to this University. This provision shall not be made applicable to those students who have registered for B.Com. degree course under distancemode.</p> <p>(Note:-Internal Examination will be compulsory for all students. If the student fails/absent in internal examination then he/she will have to clear the internal examination in subsequent attempt/s in following semester. There will be a separate head of passing in Internal, Theory and Practical head of passing. However ATKT rules shall be made applicable in respect of Theory/ Practical head of passing only.</p>
O. B. Com.-3	<p>i) No candidates shall be allowed to enter upon the course for the B.Com.-III (Sem-V & VI) examination unless he has passed the B.Com. -II (Sem.-III & IV) examination of this University or an examination of any other Statutory University recognised as equivalent thereto. However a candidate passing in all heads of passing or a candidate passing in all heads of passing except four heads of University (Theory/ Practical) Examination of B.Com.-II (Sem-III & IV) taken together) of this University shall be permitted to enter upon the course of B.Com. Part-III.</p> <p>For admission to B.Com. Part-III examination or for keeping term for B.Com. Part-III examination, a candidate shall have to pass in all heads of passing of B.Com. Part-I (Sem. I & II) examination.</p> <p>No candidate shall be admitted to the B.Com. Part-III examination unless he has satisfactorily kept two terms for the same at a college affiliated to this University. This provision shall not be made applicable to those students who have registered for B.Com. degree course under distance mode.</p>
O. B. Com.-4	<p>The fee for admission to the B.Com. Part-I, Part-II and Part-III shall be as prescribed by the university from time to time.</p>

B. Com. Part-I (Level-5) SEMESTER-I

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23

B.Com-I (Semester-I)

Course Code: DSC-1 Discipline Specific Course

Financial Accounting Paper-I

Credits: 4

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	After completing this course, students will be able: 1. To get an idea about the basic of accounting, accounting concepts and conventions and accounting process. 2. To acquaint with skill of recording transactions related to amalgamation of partnership firm. 3. To apply skills of accounting for consignment transactions. 4. To make use of knowledge and skill for accounting of professionals.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Introduction to Accounting:	(15 hours)
	Basic Accounting Concepts and Conventions, Accounting Process, Accounting Standards-Need & Procedure, Concept of IFRS	
Unit-II:	Accounting for Amalgamation of Partnership:	(15 hours)
	Amalgamation of Partnership Firms	
Unit-III:	Consignment Accounting:	(15 hours)
	Consignment Accounts- Important Terms and Accounting in the books of Consignor and Consignee.	
Unit-IV:	Accounting of Professionals:	(15 hours)
	Accounts of Professionals- preparation of Receipts and Expenditure Account and Balance sheet of Medical Practitioners and Professional Accountants.	

Reference Books:

1. Gupta R.L. and Radhaswamy M.– ‘Financial Accounting’ Sultanchand Sons, New Delhi.
2. Shukla M.C. Grewal T.S. and Gupta S.C.– ‘Advanced Accounts’ S. Chand and Company, New Delhi.
3. Agarwala A.N. Agarwala K.N.- ‘Higher Science of Accountancy’ Kitab Mahal Allahabad.
4. Jain and Narang– ‘Advanced Accountancy’ Kalyani Publications, New Delhi.
5. S.N. Maheswari– ‘Advanced Accountancy’
6. Compendium of statement and standard of Accounting. The institute of Chartered Accountants of India.
7. Rajan Chougule, Dhaval Chougule- “Theory and practice of Computer Accounting” Modern Publication, Kolhapur.

Note- College should make a provision of necessary computers for commerce department to train the students in computer Accounting as prescribed in the syllabus.

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
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B.Com-I (Semester-I)

Course Code: DSC-2: Discipline Specific Course
Management Functions and Application-Paper-I

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	After completing this course, students will be able: 1. To get an idea about the basic managerial process and planning works in real life 2. To develop decision making skills to evaluate various alternatives and situations. 3. To acquaint with the knowledge of organizing various resources. 4. To understand the concepts of authority and process of delegation of authority. 5. To understand importance of proper direction and to develop their communication skill.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Introduction to the Management:	(15 hours)
	Meaning, Definition, Concept, Characteristics, Need for Management Study, Levels of Management, Contribution Towards Development of Management Theory a) Elton Mayo- Hawthorne Experiments and their findings. b) Peter Drucker- Management by Objectives (8), Its Merits and Demerits. c) C.K Prahlad- Core Competence	
Unit-II:	Planning and Decision Making:	(15 hours)
	Meaning and techniques of Forecasting, SWOC Analysis. Meaning and Definition of Planning - Types of Planning – Steps in Planning Process Decision Making- Concept, Importance, Decision-making Process, Techniques of Decision making -qualitative and quantitative, Six Thinking Hats.	
Unit-III:	Organizing and Staffing Organizing:	(15 hours)
	Meaning, Concept, Steps of organization, Principles of organizing Delegation of Authority: Meaning, Elements, Difficulties in delegation, Guidelines for making effective delegation. Centralization and Decentralization: Meaning, Merits and Demerits Staffing: Concept Need and importance of Staffing, Sources of Recruitment, Scientific Selection Process	
Unit-IV:	Direction and Communication Direction:	(15 hours)
	Direction: Meaning, Elements, Principles & Techniques of Direction Concept of Team Work, Group Dynamics Communication: Meaning and Process of Communication, Types of Communication, Barriers to Communication, Overcoming Barriers to Communication	

List of Reference Books - Management Functions and Application Paper- I (Semester I)

1. George Terry, Principles of Management, Richard D. Irwin
2. Newman, Summer, and Gilbert, Management, PHI
3. James H. Donnelly, Fundamentals of Management, Pearson Education.
4. B.P. Singh and A.K.Singh, Essentials of Management, Excel Books
5. Griffin, Management Principles and Application, Cengage Learning
6. Robert Kreitner, Management Theory and Application, Cengage Learning
7. Peter F Drucker, Practice of Management, Mercury Books, London
8. Organisation and Management- Dr. C.B. Gupta
9. Business Organisation and Management –M.C.Shukla
10. Essentials of Management- Koontz and O' Donnell
11. Management: Stoner
12. Principles of Management- P.C. Tripathi and P.H.Reddy
13. Management- Principles and practice- Shriniwas&Chunawala

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
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B.Com-I (Semester-I)

DSC-3: Discipline Specific Course

Subject– Micro Economics Paper I

Objective:

1. Objective of the course is to acquaint students with the concepts of micro economics dealing with consumer behaviour. The course also makes the student understand the supply side of the market through the production and the cost behaviour of firm.
2. Learning outcomes –The student should be able to apply tools of consumer behavior and firm theory to business situation.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcome s:	The student should be able to apply tools of consumer behavior and firm theory to business situation.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Demand and consumer behavior	(15 hours)
	Concept of demand, Defects of Cardinal Approach Indifference Curve Analysis – Meaning, indifference curve map, properties, Marginal rate of substitution (MRS) Consumer's equilibrium and Consumer Surplus 1.4Application of indifference curve.	
Unit-II:	Demand forecasting:	(15 hours)
	Meaning and Objectives Factors influencing demand forecasting Methods of Demand Forecasting – Market Survey, Time series and Graphical method. Importance of demand forecasting in Business decision making.	
Unit-III:	Production function:	(15 hours)
	Concept of production function - fixed and variable inputs. Theories of production: Law of variable proportions and Law of	

	Returns to scale Internal and External economies and diseconomies of scale. Isoquants- Concept, Economic region of production, optimal combination of resources	
Unit-IV:	Cost of production and revenue:	(15 hours)
	Cost of production – Money and Real cost, Private and Social cost, Opportunity cost. Short and long run cost curves. Modern approach of cost curves. Revenue – Total, Average and Marginal revenue- Revenue curves in perfect competition and imperfect competition.	

List of Reference Books:

- 1) Ahuja H.L. (2010). Business Economics.S. Chand & Company New Delhi-110055
- 2) Mithani D.M. and Murthy G.K. (2007). Fundamentals of Business Economics. Himalaya Publishing House, New Delhi.
- 3) Zambre G.N. (2004). Business Economics. Pimplapure Publisher, Nagpur.
- 4) Mankar V.G. (2000).Business Economics. Himalaya Publishing House, New Delhi.
- 5) Koutsoyiannis (1979). Modern Micro Economics. MacMillan Press Ltd. London.
- 6) Dewett K. K. (2006). Modern Economic Theory. S.Chand and Company Ltd., New Delhi.
- 7) Jhingan M. L.(2012) Micro Economic Theory.Vrinda Publication (p) Ltd.
- 8) Dominick Salvatore (2011). Microeconomics. Shaum series, McGraw Hill Education.
- 9) Mithani D.M. (2011) Managerial Economics. Himalaya Publishing House, New Delhi,
- 10) Seth M. L. (1996).Micro Economics. Lakshmi NarainAgarwalEdn. Publishers, Agra.
- 11) Patil K.E. (2007) UchattarArthikSidhant.Mangesh Publication, Nagpur.
- 12) Zamare G.N. (2011) SukshamaArthashastra. Pimpalpure and Company Publishers, Nagpur

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23

B.Com-I (Semester-I)

GEC-AA1: General Elective Course

Principles of Marketing Paper-I

Objective:

1. To provide basic knowledge of concepts and principles of marketing.
2. To make aware to students about rural marketing, recent Developments and marketing information system.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. The students will know various marketing concepts, basics of marketing and he or she will be able to assess consumer behaviour. 2. The students will understand rural market, consumers and he or she will also enlighten about various recent trends and development in marketing.	(Marks: 40 for Examination 10 for Internal Assessment)

Unit-I:	Introduction:	(15 hours)
	Nature, Scope and importance of marketing; Evolution of marketing concepts; marketing environment.	
Unit-II:	A. Consumer Behaviour: B. Market Selection :	(15 hours)
	A. An Overview: consumer buying process; factors influencing consumer buying decisions. B. Market segmentation - concept, importance and bases: Target market selection; positioning concept and importance product differentiation vs. market segmentation.	
Unit-III:	Rural marketing:	(15 hours)
	Growing importance; Distinguishing characteristics of rural marketing; Understanding rural consumers and rural markets. Marketing mix planning for rural markets.	
Unit-IV:	Recent developments in marketing:	(15 hours)
	Social Marketing, Online marketing, green marketing. Marketing Information System-concept and components: Marketing Research and its process.	

List of Reference Books:

1. Kotler Philip, Gary Armstrong, Prafulla Agnihotri and Ahsan UI Haque. Principles of Marketing. 13th edition. Pearson Education.
2. Michael, J. Etzel, Bruce J. Walker, William J Stanton and Ajay Pandit. Marketing Concept and Cases. (Special Indian Edition)
3. McCarthy, E Jerome and William D. Perreault, Basic Marketing, Richard D. Irwin.
4. Lamb, Charles W, Joseph F. Hair, Dheeraj Sharma and Carl Mc Daniel Marketing: A South Asian Perspective Cengage Learning.
5. Pride William M. D. C. Ferrell Marketing: Planning, Implementation & Control, Cengage Learning.
6. Majaro, Simon The Essence of Marketing Perentice Hall, New Delhi
7. Zikmund William Gand Michael D's Amico Marketing: Creating and Keeping Customers in an E- Commerce World. Thomson Learning.
8. Chhabra, T.N, and S.K. Grover Marketing Management. Fourth Edition Dhanpat Rai & Company.
9. The Consumer Protection Act-1986.
10. Iacobucci and Kapoor, Marketing Management : A South Asian Perspective, Engage Learning

Shivaji University Kolhapur

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B.Com-I (Semester-I)

GEC-AC1: General Elective Course **Marathi Paper-I**

Generic Elective Core (GEC-1) : Marathi (Course - A)

अनुषंगिक निवड (GEC-1) : मराठी (अभ्यासपत्रिका - अ)

सत्र १ : Semester - I

पाठ्यपुस्तक - शब्दसंहिता

१. नापास मुलांची गोष्ट (निवडक लेख)

संपा. अरुण शेवते, ऋतुरंग प्रकाशन, मुंबई.

२. व्यक्तिमत्त्व विकास आणि भाषा

उद्दिष्टे :

१. विद्यार्थ्यांची मराठी भाषा आणि साहित्याविषयी अभिरूची विकसित करणे.

२. मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय करून देणे.

३. विद्यार्थ्यांमध्ये मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्यांविषयी जाणीव निर्माण करणे.

४. विद्यार्थ्यांचा व्यक्तिमत्त्व विकास घडवून विविध परीक्षा आणि स्पर्धा परीक्षांची पूर्वतयारी करून घेणे.

५. निबंधलेखनाच्या माध्यमातून भाषा उपयोजनाची कौशल्ये विकसित करणे.

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	१) निवड - यशवंतराव चव्हाण २) वाटेवरच्या सावल्या - कुसुमाग्रज ३) पन्नास पैकी शून्य मार्कस् - शांताबाई शेळके	१५	१
विभाग २ Module II	४) शब्दांचे मोल - चंद्रशेखर धर्माधिकारी ५) संगमनेरचे दिवस - दया पवार व्यक्तिविशेष लेख : ६) संकल्प सिद्धीला नेणारा महापुरुष : डॉ. बापूजी साळुंखे - बळवंत देशमुख	१५	१
विभाग ३ Module III	● व्यक्तिमत्त्व संकल्पना ● व्यक्तिमत्त्व विकासासाठी आवश्यक घटक ● व्यक्तिमत्त्व विकासात भाषेचे महत्त्व	१५	१
विभाग ४ Module IV	● भाषिक कौशल्ये(श्रवण, वाचन, भाषण आणि लेखन कौशल्ये) ● कार्यक्रमाचे संयोजन - स्वागत, प्रास्ताविक, परिचय, मनोगत, आभार, सूत्रसंचलन आणि कार्यक्रमाचे फलकलेखन	१५	१

संदर्भ ग्रंथसूची:

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	बदलते मराठी साहित्य व संस्कृती	संपा. विलास रणसुभे	श्रमिक प्रतिष्ठान, कोल्हापूर
२	शिक्षण महर्षी डॉ. बापूजी साळुंखे	संपा. सुरेश पाटील, तुकाराम पाटील	पारख प्रकाशन, बेळगांव
३	निळी पहाट	रा. ग. जाधव	सुरेश एजन्सी, पुणे
४	साहित्यसंवाद	वि. शं. चौधुले	प्रतिमा प्रकाशन, पुणे
५	मराठी साहित्यातील स्पंदने	गो. म. कुलकर्णी	सुपर्ण प्रकाशन, पुणे
६	साहित्यातील विचारधारा	के. रं. शिरवाडकर	पद्मगंधा प्रकाशन, पुणे
७	चिंतनाच्या वाटा	निर्मलकुमार फडकुले	मेहता पब्लिशिंग हाऊस, पुणे
८	साहित्य समजून घेताना	दत्ता भगत	मीरा बुक्स अँड पब्लिकेशन, औरंगाबाद
९	साहित्य : मूल्य आणि मूल्यांकन	निशिकांत ठकार	सुविधा प्रकाशन, सोलापूर
१०	साहित्य, भाषा आणि समाज	मिलिंद बोकिल	मौज प्रकाशन, मुंबई
११	व्यावहारिक मराठी	ल.रा. नसिराबादकर	फडके प्रकाशन, कोल्हापूर
१२	भाषिक सर्जन आणि उपयोजन	राजन गवस, अरुण शिंदे, गोमटेश्वर पाटील	दर्या प्रकाशन, पुणे
१३	व्यावहारिक मराठी	स्नेहल तावरे	स्नेहवर्धन प्रकाशन, पुणे
१४	सूत्रसंचलन : एक प्रयत्नसाध्य कला	श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, इस्लामपूर

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने गृहपाठ असेल.

३) या सत्रात प्रत्येक विद्यार्थ्याने Skill Enhancement Course (SEC) पुढील लिंकवर जावून पूर्ण करणे बंधनकारक राहील.

https://drive.google.com/file/d/176Vwvx4SC2ONrt69XADruzl2qnfBPI_o/view?usp=sharing

४) या सत्रात प्रत्येक विद्यार्थ्याने बहाही अकादमी, पाचगणी यांचा Value Based Course पूर्ण करणे बंधनकारक.

संदर्भ ग्रंथसूची:

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	बदलते मराठी साहित्य व संस्कृती	संपा. विलास रणसुभे	श्रमिक प्रतिष्ठान, कोल्हापूर
२	शिक्षण महर्षी डॉ. बापूजी साळुंखे	संपा. सुरेश पाटील, तुकाराम पाटील	पारख प्रकाशन, बेळगांव
३	निळी पहाट	रा. ग. जाधव	सुरेश एजन्सी, पुणे
४	साहित्यसंवाद	वि. शं. चौघुले	प्रतिमा प्रकाशन, पुणे
५	मराठी साहित्यातील स्पंदने	गो. म. कुलकर्णी	सुपर्ण प्रकाशन, पुणे
६	साहित्यातील विचारधारा	के. रं. शिरवाडकर	पद्मगंधा प्रकाशन, पुणे
७	चिंतनाच्या वाटा	निर्मलकुमार फडकुले	मेहता पब्लिशिंग हाऊस, पुणे
८	साहित्य समजून घेताना	दत्ता भगत	मीरा बुक्स अँड पब्लिकेशन, औरंगाबाद
९	साहित्य : मूल्य आणि मूल्यांकन	निशिकांत ठकार	सुविधा प्रकाशन, सोलापूर
१०	साहित्य, भाषा आणि समाज	मिलिंद बोकिल	मौज प्रकाशन, मुंबई
११	व्यावहारिक मराठी	ल.रा. नसिराबादकर	फडके प्रकाशन, कोल्हापूर
१२	भाषिक सर्जन आणि उपयोजन	राजन गवस, अरुण शिंदे, गोमटेश्वर पाटील	दर्या प्रकाशन, पुणे
१३	व्यावहारिक मराठी	स्नेहल तावरे	स्नेहवर्धन प्रकाशन, पुणे
१४	सूत्रसंचलन : एक प्रयत्नसाध्य कला	श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, इस्लामपूर

प्रश्नपत्रिकेचे स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील लघुत्तरी प्रश्न (चार पैकी दोन)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने गृहपाठ असेल.

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B.Com-I (Semester-I)

GEC-AD1: General Elective Course

Global Finance Paper- I

Global Finance

Course Objectives:

- 1) To acquaint student with the concept of International Finance.
- 2) To know the functioning of Foreign Exchange Market.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. Students will understand the concept of International Finance. 2. Students will know the functioning of Foreign Exchange Market.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	International Business Environment:	(15 hours)
	Nature and Characteristics of International Business, International Business Activities, International Business Methods, Motivation for International Business, Globalisation and its impact, WTO and its role. Theories of International Trade- Absolute advantage, Comparative advantage.	
Unit-II:	International Finance Environment:	(10 hours)
	Nature, Scope and Significance of International Finance, World Bank, International Monetary Fund, Asian Development Bank.	
Unit-III:	Source of International finance:	(15 hours)
	Trade Settlement Methods, Export Finance, Buyers Credit and Supplier's Credit, ECBFCC BADRGDRFDI, Syndication. International Credit and money Market, International Bond Market, Equity Market.	
Unit-IV:	Financial Management of the Multinational:	(20 hours)
	Firms: Cost of Capital and Capital Structure of a Multinational firm, Multinational Capital Budgeting, Multinational Cash Management, Management of Receivable.	

Reference Books:

- 1) International Financial Management -V.K. BhallaAnmol Publication Pvt Ltd. New Delhi.
- 2) International Financial Management-MadhuVij. Excel Books.
- 3) International Financial Management - V. A. Avadhani Himalaya Publishing House.
- 4) International Financial Management-CheolEun&BurceResnick.
- 5) Finance of International Trade-Alastair Wats on Paul Cowdell.
- 6) International Financial-A. V. Rajwade.
- 7) International Financial-P. G. Apte.
- 8) International Financial Management-P. K. Jain & Others.

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B.Com-I (Semester-I)

GEC-AF1: General Elective Course

Urdu Paper-I
(Text Book: Asrar—E-Zauque)

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	<ol style="list-style-type: none"> 1. To create National Integration among students through Urdu literature. 2. To create Moral Perspective among the students about changing nature of Indian Society through literature. 3. To make the student aware towards the dynamics of basic Urdu. 4. To educate the student about globalization scenario of Indian Urdu Literature. 	(Marks: 40 for Examination 10 for Internal Assessment)
UnitNo.	Title of the unit	No. of Lectures
Unit-I	Lafz — Lafz Kahta Hai By Dr. Jannat Bi Bashir Ahmed Bagban Gulam Dastagir Gulam Ki Natiya Shairi By Dr. Md. Iqbal Jarman	15
Unit-II	Gulam Dastagir Shaikh Ki Shairi By Dr. Md. Iqbal Jarman Lala-E-Sahera Principal Dr. Gulam Dastagir Shaikh By Dr. Ab. Rasheed	15
Unit-III	Shaher Sholapur he Roshan Chirag Par Ek Nazar By Dr. Ab. Rasheed Lala-E-Sahera Ek Tajziya By Dr. Khateeb	15
Unit-IV	Shaher Sholapur ke Roshan Chirag Ek Jaiza By Dr. Md. Aadam Ali D'hutegar Principal Dr. Gulam Dastagir Shaikh — Adabi Khidmat By Prof Dr. Khateeb	15

Books Recommended

Lala-E-Sahera. Principal Dr. Gulam Dastagir Shaikh

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B.Com-I (Semester-I)

GEC-AF1: General Elective Course
Kannada Paper-I
(ModernKannadaShortStories)

Credit4

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. Toacquaintthestudentwithmodernkannadaliterature 2. Tointroducethestudentstokannadashortstory. 3. TodevelopliterarycompetenceamongstudentsText	(Marks: 40 for Examination 10 for Internal Assessment)
UnitNo.	Titleof the unit	No. ofLectures
Unit-I	Development of short story in modern kannada literature	15
Unit-II	KodaginGauramma-VaniySamashe Mastti -MosarinMangamma Niranjan-KoneyGiraki	15
Unit-III	DevnuruMahadev-Amas Triveni-Narabali Anand-NanuKondHudigi	15
Unit-IV	SavitrivediNaidu-Ratna Kankan GeetaKulkarni-Hashivu ShantadeviKanavi-Attige	15

Reference Books:

- 1) ShatamanadaSannaKathegalu:KarnatakaSahityaAcademy,Bengluru.
- 2) HosagannadaSAhityaCharitre:Dr.L.S.Sheshagirirao.
- 3) SahityaMattuYugadharma:Kirthinathkurthakoti.
- 4) MastiyavaraSamagraKathaSamutagalu.
- 5) DevanuruMahadevaraSamagraKruthigalu.
- 6) AtyuttamaSannaKathegalu -(Edt)K.NarsimhaMurthy.

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B.Com-I (Semester-I)

GEC-BA1: Generic Elective Course

Business Mathematics Paper-I

4 Credits

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. To understand progression and acquire skill to use it for business. 2. To apply the knowledge of matrices and determinants. 3. To analyze the data with the help of ratio, proportion, percentage and interest. 4. To apply the knowledge and skills related to Linear Programming Problems	(Marks: 40 for Examination 10 for Internal Assessment)
Unit No.	Title of the unit	No. of Lectures
Unit-I:	Progression:	15
	Introduction. Definition: Sequence, Arithmetic Progression (A.P.). General term (n^{th} term) of an A.P., Sum of the first n terms of an A. P. and simple examples. Examples based on the application of Arithmetic Progression to Business. Definition: Geometric Progression (G.P.). General term (n^{th} term) of an G.P., Sum of the first n terms of an G. P. and simple examples. Examples based on the application of Geometric Progression to Business.	
Unit-II:	Matrices and Determinants:	15
	Introduction. Definition of Matrix Types of matrices : Rectangular matrix, Row matrix, Column matrix, Square matrix, Diagonal matrix, Scalar matrix, Unit matrix (Identity matrix), Upper triangular matrix, Lower triangular matrix, Null matrix (Zero matrix). Algebra of matrices: Equality of matrices, Addition and Subtraction of matrices. Scalar multiplication of a matrix, Multiplication of matrices Transpose of a matrix and examples. Minor, cofactor, Adjoint, Inverse of a square matrix. Finding inverse of a matrix by using adjoint method. Determinants of second and third order. Determinant of a square matrix, Singular and non-singular matrix. Properties of determinants (without proof), Examples. Cramer's rule, Solution of system of linear equations by Cramer's rule.	

Unit-III:	Ratio,Proportion,PercentageandInterest	15
	Introduction RatioandProportion, Simpleandcompoundproportion, Simpleexamples onratio andproportion Percentage,simpleexamples. Interest: Simple Interest, Compound Interest Simple examplesbasedonsimpleandcompoundinterest. Annuity:Types ofannuity,Present valueofan annuity,Futurevalueof anannuity.Examples	
Unit-IV:	LinearProgrammingProblems(L.P.P.):	15
	Introduction. Definition: Linear Programming,Objectivefunction,Decisionvariables, Constraints. FormulationofL.P.P(Twovariablesonly) Definition: Solution to L.P.P., Feasiblesolution,optimalsolution. SolutionofL.P.P.bygraphicalmethod. (caseshavingnosolution,multiplesolutions,unboundedsoluti on) Examples.	

***(1) Non-programmable calculator is allowed.

ReferenceBooks:

- 1) **ComprehensiveBusinessMathematics**, VennaG.R.,NewAgeInternational(P)
LimitedPublishers, NewDelhi.
- 2) **TextBookofMatrices**,Shantinarayan.
- 3) **BusinessMathematics**,.KumbhojkarG.V.
- 4) **BusinessMathematics**, Soni R.S.
- 5) **Business Mathematics**, KapoorV. K., SanchetiD.C.
- 6) **OperationResearch**,J. K.Sharma.
- 7) **BusinessMathematics**,B.Com.Part-IPublishedbyShivajiUniversity,Kolhapur.

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B.Com-I (Semester-I)

GEC-BB1: General Elective Course

Insurance Paper-I

Objectives:

1. The objective of this course is to provide basic knowledge of Principles and practice insurance and life insurance.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. To enable the students to know the fundamentals of Insurance. 2. To give exposure to the students about life insurance products, Procedural part and life insurance business in India.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Introduction to Insurance:	(15 hours)
	Definition, characteristics and need of insurance, Economic and commercial significance of insurance, Insurance as a social security tool, Types of insurance in brief, Principles of insurance. Insurance contract and wagering contract.	
Unit-II:	Life Insurance:	(15 hours)
	Meaning and Nature of life insurance. Life insurance products, -whole life, endowment, term plans, pension and annuity plans, unit linked Insurance plans.	
Unit-III:	Life Insurance Policy:	(15 hours)
	Meaning, Procedure of taking life insurance policy, policy conditions, settlement of claims.	
Unit-IV:	Life Insurance Business in India:	(15 hours)
	Growth of life insurance business after privatization, Evaluation of performance of LIC of India and private companies, Insurance Regulatory and Development Authority Act, 1999- structure. Organizational setup and functions.	

Note-visit to Life Insurance Company&/ or Guest lecturers may be arranged.

List of Reference books:

1. G.S. Panda-' Principles and Practices of Insurance' Kalyani Publishers, Ludhiana
2. M. Arif khan' and Practice of Insurance' Educational Book House, Aligarh.
3. M.N. Mishra-'Insurance Principles and Practice' S. Chand & Company Ltd. New Delhi.
4. Kothari & Bahl, Principles and Practice of Insurance' Sahitya Bhawan, Agra.
5. S. Balachandran, General Insurance, Insurance Institute of India, Mumbai.
6. S. Balachandran, Life Insurance, Insurance Institute of India, Mumbai.
7. Insurance Regulatory Development Authority Act-1999.

Note- Latest edition of text books may be used.

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B.Com-I (Semester-I)

GEC-BD1: Generic Elective Course

Foreign Trade Paper-I

(Basics of Foreign Trade)

Course Objectives:

- 1) To acquaint the students with basics of foreign trade.
- 2) To introduce the various institutions promoting foreign trade.

60 hours Course	Course Content	4 Credits Total 50 Marks
Course Outcomes:	1. To know about foreign trade procedure. 2. To be familiar with various institutions related to promoting foreign trade.	(Marks: 40 for Examination 10 for Internal Assessment)
	Course Content	
Unit-I:	Introduction to Foreign Trade:	(15 hours)
	Meaning, Importance of foreign trade-Recent Trends in World Trade- Leading Players in the world- US, Russia, Germany, Japan and China-Major item stranded.	
Unit-II:	Environment for Foreign Trade:	(15 hours)
	Foreign Trade Development and Regulation and Act, 1992, Cross Cultural Issues, Environment Protection, Barriers to Foreign Trade.	
Unit-III:	Financial Support to Foreign Trade:	(15 hours)
	World Bank, IMF, ADB, IDA objectives, functions and performance.	
Unit-IV:	World Trade Organization: (WTO)	(15 hours)
	Formation, Principles, objectives and functions-WTO Agreements-Achievements and limitations of WTO.	

List of Reference books:

1. Francis Cherrunilam, International Trade and Export Management-Himalaya Publication.
2. Bhagwati J.(ed), International Trade, Penguin Books, 2007.
3. Indian Trade Statistics, Published by CMIE&DGCIS.
4. RBI Annual Reports.
5. Annual Reports of Ministry of Commerce.
6. Raj Agarawal-Indian Foreign Trade, Excel Books Delhi.
7. K.Ashwatthapa, International Business, Himalaya Publication.
8. P. Subbarao, International Business, Himalaya Publication.
9. Foreign Trade & WTO-M.L. Narasaiah Discovery Publishing House, New Delhi.
10. Foreign Trade & Development-Mankal, Kulkarni, Sadasivan, Himalaya Publication, Delhi.
11. Foreign Trade & Economic Development India, Bhagwati, Srinivasan, Mcmillan-Mumbai.
12. India Year Book-Govt. of India Publication

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B.Com-I (Semester-I)

AECC-C1: Ability Enhancement Compulsory Course

Business Communication Paper-I (English for Business Communication)

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. To acquaint students with communication skills. 2. To inculcate human values among the students through poems and prose. 3. To improve the language and business competence of the students.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I	a) Developing Vocabulary b) On Smiles – A.G. Gardiner	15 hours
Unit-II	a) Description b) The Unknown Citizen – W.H. Auden	15 hours
Unit-III	a) Narration b) Panch Parameshvar – Premchand	15 hours
Unit-IV	a) Kabuliwala – Rabindranath Tagore b) Offering in the Temple – Desika Pillai c) Felling of the Banyan Tree – Dilip Chitre	15 hours

Division of Teaching hours (Total 60 Periods):

1. Communication Skills: $3 \times 12 = 36$ periods
 2. Reading Comprehension: $6 \times 4 = 24$ periods
- Note: Internal Evaluation of 10 marks: Home Assignment.

Nature of Question Paper For Business Communication Paper-I

Total Marks: 40

Que. No.	Sub. Que.	Type of Question	Based on Unit	Marks
Q.1	A	Four multiple choice questions with four alternatives to be set.	Prose and poetry units.	04
	B	Answer in one word/phrase/sentence each. (Skimming and scanning questions to be set).	Prose and poetry units.	04
Q.2	A	Answer the following questions in 3 to 4 sentences each (3 out of 5)	Prose and poetry units.	06
	B	Write short notes on the following in about 7 to 8 sentences each (2 out of 4)	Prose and poetry units.	06

Q.3	-- -	Doas directed. 3 different exercises to be set for 2markseach.	Unit I-A	06
Q.4	A	I) Describingplaces/dailyroutine II) Describingobjects/persons(4 markseach).	Unit II - A Description	08
	B	Question to beset on Narration	Unit III-A	06

B. COM. PART-I (LEVEL-5) SEMESTER-II

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B.Com-I (Semester-II)

Course Code: DSC-4 Discipline Specific Course
Financial Accounting Paper-II

Credits: 4

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	After completing this course, students will be able: 4. To acquaint with skill of recording transactions related to single entry system. 5. To apply skills of accounting for conversion of partnership firm into a limited company. 6. To make use of knowledge and skill for accounting of branches. 7. To understand the knowledge about computerized accounting.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Accounting for Incomplete Record:	(15 hours)
	Single Entry System-Conversion Method only	
Unit-II:	Accounting for Conversion of Partnership into a Limited Company:	(15 hours)
	Conversion of Partnership Firm into a Limited Company- Accounting in the books of partnership firm only	
Unit-III:	Branch Accounting:	(15 hours)
	Branch Accounts-Dependent Branch- preparation of Branch Account, Branch Trading and Profit and Loss Account and Stock and Debtors Method	
Unit-IV:	Computerized Accounting System:	(15 hours)
	Computerized Accounting System: Introduction to Computerized Accounting, Accounting softwares 'Tally'-preparation of Vouchers, Feeding of Data and Generating of various Reports	

Reference Books:

1. Gupta R.L. and Radhaswamy M-
'Financial Accounting' Sultanchand Sons, New Delhi.
2. Shukla M.C. Grewal T.S. and Gupta S.C.-
'Advanced Accounts' S.Chand and Company, New Delhi.
3. Agarwala A.N. Agarwala K.N.-
'Higher Science of Accountancy' Kitab Mahal Allahabad.

4. Jain and Narang–‘Advanced Accountancy’ Kalyani Publications, New Delhi.
5. S.N. Mheswari–‘Advanced Accountancy’
6. Compendium of statement and standard of Accounting. The Institute of Chartered Accountants of India.
7. Rajan Chougule, Dhaval Chougule–
“Theory and practice of Computer Accounting” Modern Publication, Kolhapur.

Note- College should make a provision of necessary computers for commerce department to train the students in computer Accounting as prescribed in the syllabus.

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B.Com-I (Semester-II)

DSC-5: Discipline Specific Course

Management Functions and Application-Paper-II

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	After completing this course, students will be able: 1. To get an idea about motivation concept and theories 2. To develop their leadership skill 3. To understand and utilize techniques of coordination and control 4. To understand various emerging issues in management like green management and to understand concept of Change	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Motivation	(15 hours)
	Motivation: Concept, Importance, Financial and Non - financial Motivation, Human Relationship approach. Theories of Motivation - Maslow's Need-Hierarchy Theory; Herzberg's Two-factor Theory, Douglas McGregor's Theory X and Y	
Unit-II:	Leadership	(15 hours)
	Leadership - Concept, Importance, Qualities of Leader, Styles of Leadership, Case study of leadership of Shivaji Maharaj, Mahatma Gandhi and Dr. Babasaheb Ambedkar.	
Unit-III:	Co-ordination and Control	(15 hours)
	Concept, Need and Techniques of Co-ordination. Control -Concept, Need of control, Process of Controlling, Techniques of Control –Traditional and Modern.	
Unit-IV:	Emerging issues in Management Corporate Social Responsibility:	(15 hours)
	Meaning and Importance. Green Management – Concept and Importance. Change Management: Concept, Need for Change, Resistance to Change, Overcoming Resistance to Change	

List of Reference Books - Management Functions and Application Paper- II (Semester II)

1. Harold Koontz and Heinz Weihrich, Essentials of Management: An International and Leadership Perspective, McGraw Hill Education.
2. Stephen P Robbins and Madhushree Nanda Agrawal, Fundamentals of Management: Essential Concepts and Applications, Pearson Education.
3. George Terry, Principles of Management, Richard D. Irwin

4. Newman, Summer, and Gilbert, Management, PHI
5. James H. Donnelly, Fundamentals of Management, Pearson Education.
6. B.P. Singh and A.K.Singh, Essentials of Management, Excel Books
7. Griffin, Management Principles and Application, Cengage Learning
8. Robert Kreitner, Management Theory and Application, Cengage Learning
9. TN Chhabra, Management Concepts and Practice, Dhanpat Rai & Co. (Pvt. Ltd.), New Delhi
10. Peter F Drucker, Practice of Management, Mercury Books, London
11. Sharur Ranganekar – In the World of Corporate Managers.
12. Organisation and Management- Dr. C.B. Gupta
13. Business Organisation and Management – M.C. Shukla
14. Essentials of Management- Koontz and O' Donnell
15. Management: Stoner
16. Principles and Practice of Management- L.M. Prasad
17. Management: Moshal
18. Principles of Management- P.C. Tripathi and P.H. Reddy
19. Management- Principles and practice- Shrinivas & Chawala
20. Principles of management: Terry, G.R. and Stephen Franklin

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B.Com-I (Semester-II)

DSC-6: Discipline Specific Course

Micro Economics Paper II

Objective:

1. Objective of the course is to acquaint students with the concepts of microeconomics dealing with consumer behaviour. The course also makes the student understand the supply side of the market through the production and the cost behaviour of firm.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	The student should be able to apply tools of consumer behaviour and firm theory to business situation.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Perfect competition:	(15 hours)
	Meaning and characteristics Equilibrium of firm in short run and long run. Equilibrium of industry in short run and long run. Measuring producer's surplus under perfect competition.	
Unit-II:	Monopoly:	(15 hours)
	2.1 Meaning and Characteristics 2.2 Price determination under monopoly. Concept and degree of price discrimination. Measurement of monopoly power	
Unit-III:	Monopolistic competition and Oligopoly	(15 hours)
	3.1 Monopolistic competition – Meaning and Characteristics	

	Equilibrium of firm in short run and long run. Oligopoly market- Meaning and Characteristics. Duopoly Market- Meaning and Characteristics	
Unit-IV:	Factor Pricing	(15 hours)
	Rent-Meaning-Ricardo's & Modern theory of rent Wage-Meaning-Money and Real wage. Wage differentials. Interest-Meaning-Liquidity preference theory of interest Profit – Meaning. Gross and Net profit – Risks – Bearing and Uncertainty theories of profit.	

List of Reference Books:

- 13) Ahuja H.L. (2010). Business Economics. S. Chand & Company New Delhi-110055
- 14) Mithani D.M. and Murthy G.K. (2007). Fundamentals of Business Economics. Himalaya Publishing House, New Delhi.
- 15) Zambre G.N. (2004). Business Economics. Pimplapure Publisher, Nagpur.
- 16) Mankar V.G. (2000). Business Economics. Himalaya Publishing House, New Delhi.
- 17) Koutsoyiannis (1979). Modern Micro Economics. MacMillan Press Ltd. London.
- 18) Dewett K. K. (2006). Modern Economic Theory. S.Chand and Company Ltd., New Delhi.
- 19) Jhingan M. L.(2012) Micro Economic Theory. Vrinda Publication (p) Ltd.
- 20) Dominick Salvatore (2011). Microeconomics. Shaum series, McGraw Hill Education.
- 21) Mithani D.M. (2011) Managerial Economics. Himalaya Publishing House, New Delhi,
- 22) Seth M. L. (1996). Micro Economics. Lakshmi Narain Agarwal Edn. Publishers, Agra.
- 23) Patil K.E. (2007) Uchattar Arthik Sidhant. Mangesh Publication, Nagpur.
- 24) Zamare G.N. (2011) Sukshama Arthashastra. Pimpalpure and Company Publishers, Nagpur

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B.Com-I (Semester-II)

GEC-AA2: General Elective Course
Principles of Marketing Paper-II

Objective:

1. To understand 4 Ps of marketing in detail.
2. To know management of retailing and changing scenario of retailing business.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	<ol style="list-style-type: none"> 1. The students will be aware with four basic elements of marketing i.e. 4Ps in detail and he will be armed with various Skills about branding, labeling and advertisement. 2. The students will know about management of retailing operations and changing scenario of retail business in India. 	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Product:	(15 hours)
	Meaning and importance, Product classifications; Concept of product mix; Branding, packaging and labeling; Product-Support; Product life-cycle; New Product Development..	
Unit-II:	Pricing and Promotion:	(15 hours)
	A. Pricing: Significance, Factors affecting price of a product. Pricing policies and Strategies.	

	B. Promotion: Nature and Importance of promotion Promotion tools: advertising, personal selling, public relation & sales promotion –concept and their distinctive characteristics; Promotion mix and factors affecting promotion mix decisions.	
Unit-III:	Distribution: Channels of distribution–meaning and importance:	(15 hours)
	Types of distribution channels; Wholesaling and retailing; Factors affecting choice of distribution channel; Physical Distribution. Direct marketing and Services marketing-concept and characteristics.	
Unit-IV:	Retailing:	(15 hours)
	Types of retailing: store -based and non-store based retailing, chain stores, specialty stores, supermarkets, retail vending machines, mail order houses, retail cooperatives; Management of retailing operations; an over view; Retailing in India: changing scenario.	

List of Reference Books:

11. Kotler Philip, Gary Armstrong, Prafulla Agnihotri and Ahsan UI Haque. Principles of Marketing. 13th edition. Pearson Education.
12. Michael, J. Etzel, Bruce J. Walker, William J Stanton and Ajay Pandit. Marketing Concept and Cases. (Special Indian Edition)
13. McCarthy, E Jerome and William D. Perreault, Basic Marketing, Richard D. Irwin.
14. Lamb, Charles W, Joseph F. Hair, Dheeraj Sharma and Carl Mc Daniel Marketing: A South Asian Perspective Cengage Learning.
15. Pride William M. D. C. Ferrell Marketing: Planning, Implementation & Control, Cengage Learning.
16. Majaro, Simon The Essence of Marketing Perentice Hall, New Delhi
17. Zikmund William Gand Michael D's Amico Marketing: Creaing and Keeping Customers in an E- Commerce World. Thomson Learning.
18. Chhabra, T.N, and S.K. Grover Marketing Management. Fourth Edition Dhanpat Rai & Company.
19. The Consumer Protection Act-1986.
20. Iacobucci and Kapoor, Marketing Management : A South Asian Perspective, Engage Learning

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B.Com-I (Semester-II)

GEC-AC2: General Elective Course

Marathi Paper-II

Generic Elective Core (GEC-2) : Marathi (Course - B)

अनुपंगिक निवड (GEC-2) : मराठी (अभ्यासपत्रिका - ब)

सत्र २ : Semester - II

पाठ्यपुस्तक - शब्दसंहिता

अ.क्र. Sr.No.	घटक Topic	अध्यापन तासिका Teaching Hours	श्रेयांक Credit
विभाग १ Module I	१. संत नामदेव १) पतितपावन २) पंढरीस जावे २. अनंत फंदी १) जमाना आला उफराटा २) हे मुख्या खूण तर्का ३. महात्मा फुले १) मानवांचा धर्म एक २) धीर ४. बालकवी १) फुलराणी २) अप्सरांचे गाणे	१५	१
विभाग २ Module II	५. विंदा करंदीकर १) माझ्या मना बन दगड २) झपताल ६. बाहरू सोनवणे १) गोधड २) चळवळ म्हणजे ७. प्रज्ञा दया पवार १) माणसासारखा माणूस असूनही २) आग आणि फुफाटा ८. एकनाथ पाटील १) शहर एक उदास पोकळी २) शोधयात्रा	१५	१
विभाग ३ Module III	● निबंधाचे स्वरूप, व्याप्ती ● निबंधाचे घटक ● निबंधाचे प्रकार ● निबंधाची वैशिष्ट्ये	१५	१
विभाग ४ Module IV	● निबंध लेखन (प्रात्यक्षिकासह वर्गात सराव करून घेणे)	१५	१

संदर्भ ग्रंथसूची :

अ.क्र.	ग्रंथाचे नांव	लेखक / संपादक	प्रकाशन
१	नामदेव गाथा	ह. श्री. शोणोलीकर	साहित्य अकदमी, नवी दिल्ली
२	अनंत फंदी यांच्या कविता व लावण्या	संपा. मधुकर मोंढे	पद्मगंधा प्रकाशन, पुणे
३	महात्मा फुले समग्र वाङ्मय	संपा. धनंजय कीर व इतर	महाराष्ट्र राज्य साहित्य आणि संस्कृती मंडळ, मुंबई
४	समग्र बालकवी	संपा. नंदा आपटे	पॉप्युलर प्रकाशन, मुंबई
५	संहिता	संपा. मंगेश पाडगावकर	कॉन्टिनेन्टल प्रकाशन, पुणे
६	गोधड	वाहरु सोनवणे	रविराज प्रकाशन, पुणे
७	मी भिडवू पाहतेय समग्राशी डोळा	प्रज्ञा पवार	ग्रंथाली, मुंबई
८	खुट्यांवर टांगलेली दुःखं	एकनाथ पाटील	पॉप्युलर प्रकाशन, मुंबई.
९	संत नामदेव	हे. वि. इनामदार	केसरी प्रकाशन, पुणे
१०	संत नामदेव : समाजशास्त्रीय अभ्यास	श्यामसुंदर मिरजकर	नागनालंदा प्रकाशन, पुणे
११	मराठी शाहिरी वाङ्मयाचे स्वरूप	चंद्रकांत व्यवहारे	विश्वभारती प्रकाशन, नागपूर
१२	मराठी साहित्य प्रेरणा व स्वरूप	संपा. गो. मा. पवार, म.द. हातकणंगलेकर	पॉप्युलर प्रकाशन, मुंबई
१३	साहित्य अध्यापन व प्रकार	संपा. श्री. पु. भागवत व इतर	पॉप्युलर प्रकाशन, मुंबई
१४	मराठी कविता आणि आधुनिकता	यशवंत मनोहर	सुगावा प्रकाशन, पुणे
१५	आदिवासी साहित्य आणि संस्कृती	भुजंग मेश्राम	लोकवाङ्मय गृह, मुंबई
१६	आदिवासी (वाहरु सोनवणे विशेषांक)	संपा. दिपककुमार वळवी, उमाकांत वळवी	शिवकमल प्रकाशन, कोल्हापूर
१७	वाहरु सोनवणे : व्यक्तीपासून समष्टीपर्यंतचा सम्यक प्रवास	संपा. प्रशांत नागावकर	सम्यक विद्रोही प्रबोधन प्रकाशन, कोल्हापूर
१८	वर्तमान पिढीचे संदर्भ	संपा. चंद्रकांत पोतदार	द.म.सा.प्रकाशन, कोल्हापूर
१९	काव्याची भूषणे	म.वा. धोंड	पद्मगंधा प्रकाशन, पुणे
२०	मराठी कवितेच्या नव्या दिशा	महेंद्र भवरे	लोकवाङ्मय गृह, मुंबई
२१	आदिवासी साहित्य	अमर कांबळे	निर्मिती प्रकाशन, कोल्हापूर
२२	मराठी निबंध	रा. ग. जाधव	कॉन्टिनेन्टल प्रकाशन, पुणे
२३	मराठी निबंध : उद्गम आणि विकास	गिरीश मोरे	स्वरूप प्रकाशन, औरंगाबाद

प्रश्नपत्रिका स्वरूप

Pattern of Question Paper

एकूण गुण - ४० : Total Marks - 40

प्रश्न १	योग्य पर्याय निवडा	८ गुण
प्रश्न २	विभाग १ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ३	विभाग २ वरील अंतर्गत विकल्पासह दीर्घोत्तरी प्रश्न (दोन पैकी एक)	८ गुण
प्रश्न ४	विभाग ३ वरील लघुत्तरी प्रश्न (तीन पैकी दोन)	८ गुण
प्रश्न ५	विभाग ४ वरील निबंधलेखन (चार पैकी एक)	८ गुण

टीप : १) प्रश्न क्र. १ मधील वस्तुनिष्ठ प्रश्न विभाग १ व २ वरील असतील.

२) अंतर्गत मूल्यमापनासाठी १० गुणांसाठी प्रस्तुत अभ्यासपत्रिकानुषंगाने घटक चाचणी असेल.

Shivaji University Kolhapur
Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23
B.Com-I (Semester-II)

GEC-AD2: General Elective Course
Global Finance Paper- II

Objectives:

1. To make aware students about foreign exchange market and exchange rate mechanism.
2. To study exchange control regulation and regulatory framework of international finance.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. Students will able to know details about foreign exchange market and exchange rate mechanism. 2. Students will understand exchange control regulation and regulatory framework of international finance.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Foreign Exchange Market:	(15 hours)
	Features-and Structure of Foreign Exchange Market, Functions of Foreign Exchange Market, Major Participants, Types of Transactions, Spot Market and Forward Market, Interrelationship between Exchange and Interest Rate.	
Unit-II:	Exchange rate Mechanism: Exchange Rate:	(15 hours)
	Quotations, Determination of Exchange Rate in spot Market and forward Market, Factors Influencing Exchange Rate, RBI and Exchange Market, Exchange Rate System in India. Hedges, and Exposure Management-Transaction, Translation &Economic Exposure.	
Unit-III:	Exchange Control Regulation: Export Credit:	(15 hours)
	EXIM Bank, Foreign Exchange Dealers Association of India, Convertibility, Role of RBI as Exchange Control Authority.	
Unit-IV:	Regulatory Framework of International Finance:	(15 hours)
	Indian Perspective-FEMA, Foreign Trade Policy. International Perspective-Federal Bank, European Central Bank, ICC Guidelines.	

Reference Books:

- 1) International Financial Management -V.K. BhallaAnmol Publication Pvt Ltd. New Delhi.
- 2) International Financial Management-MadhuVij. Excel Books.
- 3) International Financial Management - V. A. Avadhani Himalaya Publishing House.
- 4) International Financial Management-CheolEun&BurceResnick.
- 5) Finance of International Trade-Alastair Wats on Paul Cowdell.
- 6) International Financial-A. V. Rajwade.
- 7) International Financial-P. G. Apte.
- 8) International Financial Management-P. K. Jain & Others.

Shivaji University Kolhapur
Syllabus in accordance with NEP- 2020
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B.Com-I (Semester-II)

GEC-AF2: General Elective Course

Urdu Paper- II
(Text Book .Asrar-E-Zauque)

	Topic: Poetry	Hours
Unit-I	Hum Nasr Fahem Hai Gulam Ke Trafdar Nahi By Dr. Aadam Ali Dhutegar Principal Dr. Gulam Dastgir Bahasiyat Maullim By Prof. Ayesha Md. Ismail Bagban	15
Unit-II	Mera Paigham “ Idere Khizar Ke Naam” By Siraj Ahmed Md. Saee I Momin Ek Accha Insan H i Ek Accha Maullim Hota Hai By Basliira Qasim Sahab Qureshi	15
Unit-III	Dr. Gulam Dastgir Bahasiyat Principal By Dr. Shaikh Maimuna Allah Bakhash Principal Dr. Gulam Dastagir Shaikh Ki Shakhsyat By Prof .Sabiha S. Sultana. Sayyad.	15
Unit-IV	Ye Inteha Nahi Aagaze Kare Marda Hai By Dr. Ahetesham Husain Nadaf Dr. Gulam Dastgir Ka Mazhabi Rujhan By Dr. Alhaj Hafiz Mohd Aadam Raza.	15

Books Recommended

Lala-E-Sahera. Principal Dr. Gulam Dastagir Shaikh

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B.Com-I (Semester-II)

GEC-AG2: General Elective Course

Kannada Paper- II
(Modern Kannada Literature)

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. To acquaint the students with modern Kannada literature. 2. To introduce the students to Kannada Modern poetry as a form of literature with reference to the texts prescribed. 3. To develop literary competence among students	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I	Development of modern poetry & Drama in modern Kannada literature	15 hours
Unit-II	Kuvempu a) Sharata Kalad Suryodaya dalli b) Devaru Rujumadidanu c) Aatma Shradhye	15 hours
Unit-III	K.S. Narasingh Swami a) Balegaran Hadu b) Barenann Sharade c) Barigodagalige Samadhan	15 hours
Unit-IV	Dr. Siddhalingay Pancham (Drama)	15 hours

References:-

1) Hosagannadasahitya Charitre – L.S. Sheshgiri Rao

- 2) Hosagannadasahityasangati–KeertinathKurtkoti
- 3) SamanyinigeSahityasampeetaganu–BangaluruUniversity.
- 4) SatamanandaNataka-EditedbyK.Marulasiddappa,KarnatakaSahityaAcademy,Bangalore
- 5) KannadaNataka-T.S.Shamarao

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Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23

B.Com-I (Semester–II)

GEC-BA2: Generic Elective Course

Business Mathematics Paper-II

(Calculus)

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	<ol style="list-style-type: none"> To understand progression and acquire skill to use it for business. To apply the knowledge of matrices and determinants. To analyze the data with the help of ratio, proportion, percentage and interest. To apply the knowledge and skills related to Linear Programming Problems 	(Marks: 40 for Examination 10 for Internal Assessment)
UnitNo.	Title of the unit	No. of Lectures
Unit-I:	Functions of Real Variables:	15
	<p>Introduction. Linear, Quadratic, Exponential ($y=a^x$), Inverse functions and their graphs. Illustrative examples. Limit of Function. Definition of Limit, Standard limits. Algebra of limits: If $f(x)$ and $g(x)$ are two functions of x and k is any scalar, then</p> <p>(i) $\lim_{x \rightarrow a} [f(x) \pm g(x)] = \lim_{x \rightarrow a} f(x) \pm \lim_{x \rightarrow a} g(x).$</p> <p>(ii) $\lim_{x \rightarrow a} k f(x) = k \lim_{x \rightarrow a} f(x).$</p> <p>(iii) $\lim_{x \rightarrow a} [f(x) \cdot g(x)] = \lim_{x \rightarrow a} f(x) \cdot \lim_{x \rightarrow a} g(x).$</p> <p>(iv) $\lim_{x \rightarrow a} \frac{f(x)}{g(x)} = \frac{\lim_{x \rightarrow a} f(x)}{\lim_{x \rightarrow a} g(x)},$ provided $\lim_{x \rightarrow a} g(x) \neq 0$</p>	

	0. (without proof) Simple examples.	
Unit-II:		
	Differentiation:	15
	Definition: Derivative of a function. Derivative of some standard functions from first principle($y = x^n, y = e^x, y = a^x, y = c$, where c is a constant function. Rules of Differentiation: Sum, Difference, Product and Quotient of two functions. • Simple examples. Second order derivative and examples.	
Unit-III:	Integration:	15
	Integration- An antiderivative process. Standard Integrals. Algebra of integrals: If $f(x)$ and $g(x)$ are two integrable functions and k is any constant, then (i) $\int k f(x) dx = k \int f(x) dx$. (ii) $\int [f(x) \pm g(x)] dx = \int f(x) dx \pm \int g(x) dx$. Methods of integration: (i) Substitution method (ii) Integration by parts. Examples. Definite integrals and their properties, examples.	
Unit-IV:	Application of Calculus in Business:	15
	Maxima and minima, Case of one variable involving second order derivative. Cost function, Average cost, Marginal cost, Revenue function, Profit function, Elasticity of demand. Consumer's surplus and producer's surplus. Examples based on (4.1), (4.2) and (4.3)	

*** (1) Non-programmable calculator is allowed.

(2) For limit, derivative and integration – trigonometric functions should be omitted.

Reference Books

- 1) **Business Mathematics**, Venna G.R., New Age International (P) Limited Publishers, New Delhi.
- 2) **Elements of Calculus**, Bhagvat and Pawate.
- 3) **Business Mathematics**, Kumbhojkar G.V.
- 4) **Business Mathematics**, Soni R.S.
- 5) **Business Mathematics**, Kapoor V. K., Sancheti D.C.
- 6) **Differential Calculus**–Shantinirayan
- 7) **Integral Calculus**–Shantinirayan
- 8) **Business Mathematics**–Agarwal B.M.
- 9) **Business Mathematics**, B.Com. Part-I Published by Shivaji University, Kolhapur.

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
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B.Com-I (Semester-II)

GEC-BB2: General Elective Course

Insurance Paper-II

Objectives: The objective of this course is to enable students to know the fundamentals of general insurance.

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1. To enable the students to know the fundamentals of General Insurance. 2. To give exposure to the students about general insurance, procedural part, general insurance business and FDI in insurance in India.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Fire Insurance:	(15 hours)
	Meaning, Procedure of taking fire Insurance policy, Policy conditions, kinds of policies, cancellation and forfeiture of policy, Renewal of policy, settlement of claims.	
Unit-II:	Marine Insurance:	(15 hours)
	Meaning, Procedure of taking marine insurance policy, Difference between fire and marine Insurance, clauses of marine insurance policy, marine losses and perils, Types of policies	
Unit-III:	Miscellaneous Insurance (only nature & cover)	(15 hours)
	(A) Personal Accident Insurance (B) Health Insurance (C) Motor Insurance (D) Burglary Insurance (E) Liability Insurance (F) Fidelity Guarantee Insurance (G) Cattle Insurance (H) Crop Insurance	
Unit-IV:	General Insurance Business in India	(15 hours)
	Growth of general insurance business after privatization, Evaluation of performance of public and private companies, Foreign Direct Investment (FDI) in insurance business, merits and demerits, current scenario, Banc assurance.	

Note: Visit to general insurance company and/or a Guest lecturer may be arranged.

List of Reference books:

1. G.S. Panda-' Principles and Practices of Insurance' Kalyani Publishers, Ludhiana
2. M. Arif khan' and Practice of Insurance' Educational Book House, Aligarh.
3. M.N. Mishra-'Insurance Principles and Practice' S. Chand & Company Ltd. New Delhi.
4. Kothari & Bahl, Principles and Practice of Insurance' Sahitya Bhawan, Agra.
5. S. Balachandran, General Insurance, Insurance Institute of India, Mumbai.
6. S. Balachandran, Life Insurance, Insurance Institute of India, Mumbai.
7. Insurance Regulatory Development Authority Act-1999.

Note- Latest edition of text books may be used.

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23

B.Com-I (Semester-II)

GEC-BD2: Generic Elective Course

Foreign Trade Paper-II

(India's Foreign Trade)

Course Objectives:

- 1) To introduce India's Foreign Trade scenario.
- 2) To acquaint the students with India's Foreign Trade policy and practices

Credits: 04

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:	1) To get insight about India's Foreign Trade Scenario 2) To identify India's Foreign Trade policy and practices.	(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	Introduction to India's Foreign Trade:	(15 hours)
	India's foreign trade since 1991- Changing Composition and direction-India's position in the World Trade- Reasons and Measures.	
Unit-II:	Balance of Payment:	(15 hours)
	Meaning of Balance of Trade & Balance of Payment- Current and Capital account, Components of India's BOP-Causes of Disequilibrium in BOP and measures for correction.	
Unit-III:	India's EXIM Policy:	(15 hours)
	India's Import policy objectives, recent changes and import substitutions, India's Export policy- Highlights of current EXIM policy – Procedure for Export & Import.	
Unit-IV:	Foreign Investment Policy:	(15 hours)
	Sources of Direct Foreign Investment, Foreign Collaborations, Inter-Government Loans, Loans from international institutions and External Commercial Borrowings (ECB), FDI policy.	

List of Reference books:

1. Francis Cherrunilam, International Trade and Export Management- Himalaya Publication.
2. Bhagwati J. (ed), International Trade, Penguin Books, 2007
3. Indian Trade Statistics, Published by CMIE & DGCIS.
4. RBI Annual Reports.
5. Annual Reports of Ministry of Commerce.
6. Raj Agarwal- Indian Foreign Trade, Excel Books Delhi.
7. K. Ashwatthappa, International Business, Himalaya Publication.
8. P. Subbarao, International Business, Himalaya Publication.
9. Foreign Trade & WTO- M.L. Narasimha Discovery Publishing House, New Delhi.
10. Foreign Trade & Development- Mankal, Kulkarni, Sadasivan, Himalaya Publication, Delhi.
11. Foreign Trade & Economic Development India, Bhagwati, Srinivasan, Mcmillan- Mumbai.
12. India Year Book- Govt. of India Publication

Shivaji University Kolhapur

Syllabus in accordance with NEP- 2020
with effect from Academic Year 2022-23

B.Com-I (Semester-II)

AECC-C2: Ability Enhancement Compulsory Course

Business Communication Paper-II (English for Business Communication)

60 hours Course	Course Content	Total 50 Marks
Course Outcomes:		(Marks: 40 for Examination 10 for Internal Assessment)
Unit-I:	a) Business Correspondence b) Why does the child Cry —Mulk Raj Anand	15 hours
Unit-II:	a) Telephonic Communication b) The Necklace —Guy de Maupassant	15 hours
Unit-III:	a) English for Specific Purposes b) I Thank You God —Bernard Dadié	15 hours
Unit-IV:	a) War —Luigi Pirandello b) The Cuckoo —William Wordsworth c) Let Me Not.... —William Shakespeare	15 hours

Division of Teaching (Total 60 Periods)

1. Communication Skills: 3X12= 36 periods
2. Reading Comprehension: 6X4=24 periods

SEMESTER II (Paper-B)

Total Marks: 40

Que. No	Sub. Que	Type of Question	Based on Unit	Marks
Q.1	A	Four multiple choice questions with four alternatives to be set.	Prose and poetry units.	04
	B	Answer in one word/phrase/sentence each. (Skimming and scanning questions to be set).	Prose and poetry units.	04
Q.2	A	Answer the following questions in 3 to 4 sentences each (3 out of 5)	Prose and poetry units.	06

	B	Writeshortnotesonthefollowinginabout7 to 8 sentenceseach(2 outof4)	Prose andpoetryunits.	06
Q.3		Questions to be set on BusinessCorrespondence	Module V-A	08
	A	Question on Business / MassCommunicationletters(4 marks)		
	B	Question on Social Communicationletters.(4 marks)		
Q.4	A	Question to be set on TelephonicCommunication	ModuleVI-A	06
	B	Question to be set on English forSpecific Purposes	ModuleVII-A	06

Shivaji University, Kolhapur

B.Com. (CBCS Pattern)

Part-I (Semester I)

COMMERCIAL GEOGRAPHY- Paper I

Introduce from June-2022- 23

Marks – 50

Credits : 4

GENERAL OBJECTIVES OF THE PAPER: The objective of this course is to introduce Commercial Geography, Classification of Economic activities, Correlation between Economic activities and Geographical factors, Conservation of Resources & sustainable economic development, Trade and Trade Organizations.

LEARNING OUTCOMES:

The student should be knowing the bases of commercial activities related to the earth.

PATTERN:

Pattern of Examination will be Semester for Theory.

ELIGIBILITY FOR ADMISSION:

As per eligibility criteria prescribed for each course and the merit list in qualifying examination.

SCHEME OF EXAMINATION:

Question Paper will be set in the view of the / in accordance with the entire Syllabus and preferably covering each unit of syllabi of each semester.

Title of Paper-I - Commercial Geography

	Credits	Teaching hours
Unit. 1. Introduction to Commercial Geography.	15	01
Meaning and Definition of Commercial Geography		
Nature of Commercial Geography		
Scope of Commercial Geography		
Significance of Commercial Geography.		
Unit.2. Resources	15	
01		
Meaning & importance of Resources.		
Classification of Resources.		
2. 3 Conservation of Resources & Sustainable Economic Development.		
2.4 Major Bio-Resources & Their international Trade.		
Unit.3. Economic Activities	15	
01		
Classification of Economic activities.		
Factors affecting Economic activities.		
3. 3 Economic activities & National economy.		
Unit.3. Resources -	15	
01		
Meaning & Definition of Resources		
Classification of Resources		
Conservation of Resources & sustainable economic development.		
Importance of Resources		
Unit.4. Globalization	15	
01		
Meaning of Globalization		
Impact of Globalization.		
Globalization & Indian Economy.		
4.4. Trade Organizations – WTO, OPEC, EEC.		

Reference Books.

1. Hartshorne T. N. & Alexander J.W., (1994), Economic Geography, Prentice Hall, New Delhi.
2. Wheeler J. O. et., (1995), Economic Geography, John wiley, New York.
3. Robertson D., (2001), Globalization and Environment, E. Elgar Co., U.K.
4. Saxena, H. M., (1990), Marketing Geography, Raut Publication, Jaipur.
5. Dixit R.S., (1988), Spatial organization of Market centres, pioneer

Publ.Jaipur.

6. Khann K. K. & Gupta V. K., (1982), Economic and Commercial Geography, Sultan Chand, New Delhi.

७. शंकर चौधरी (२००२), पयावरण व आथिक भूगोल, हिमालय पब्लिशिंग हाऊस, मुंबई

८. सवदी व कोळ्ळेकर (२००५), आथिक भूगोल, निराली प्रकाशन, पुणे

९. चौगुले डी. जी. (२००५), आवसायिक पयावरण, अजब प्रकाशन, कोापूर

१०. घारपुरे विगल (२००६), आथिक भूगोल, पिंपळापुरे पब्लिकेशन, नागपूर

११. सवदी व कोळ्ळेकर (२००७), आथिक भूगोल, मेहता पब्लिकेशन, कोळ्ळापूर

Shivaji University, Kolhapur

B.Com. (CBCS Pattern)

Part-I (Semester II)

INTRODUCTION TO MARKETING GEOGRAPHY- Paper II

Introduced from June-2022- 23

Marks – 50

Credits: 4

GENERAL OBJECTIVES OF THE PAPER:

The objective of this course is to introduce Concept, Meaning, Nature, Scope, Significance of Marketing Geography, Market system, Agricultural Marketing and basic cartographic techniques.

LEARNING OUTCOMES:

The student should be knowing the bases of commercial and marketing activities related to the earth.

PATTERN:

Pattern of Examination will be Semester for Theory.

ELIGIBILITY FOR ADMISSION:

As per eligibility criteria prescribed for each course and the merit list in qualifying examination.

SCHEME OF EXAMINATION:

Question Paper will be set in the view of the / in accordance with the entire Syllabus and preferably covering each unit of syllabi of each semester.

Title of Paper II – Introduction to Marketing Geography

	Teaching Hours Credits
Unit.1 .Introduction to Marketing Geography 01	15
Marketing Geography – Concept & Meaning	
Marketing Geography – Nature	
Marketing Geography – Scope	
Marketing Geography – Significance	
Marketing Geography – Primary Components	
Unit.2. Market System	15

01

Definition of Market

Structure & Significance of Markets.

Geographical factors affecting Market system.

Classification of Markets.

Unit.3. Agricultural Marketing.

15

01 3.1 Definition and Significance of Agricultural Marketing.

Nature and approaches to the study of Agricultural Marketing.

Process and system of Agricultural Marketing.

Functions and channels of Agricultural Marketing.

Unit.4. Tourism Marketing in India.

15

01

(Theory Only)

Meaning & Importance of Tourism in India

Tourism in Modern Period in India

Major tourism centers in

a) Jammu & Kashmir

b) Delhi

c) Uttaranchal

d) Maharashtra

e) Goa

f) Kerala

Reference Books.

1. Hartshorne T. N. & Alexander J.W., (1994), Economic Geography, Prentice Hall, New Delhi.

2. Wheeler J. O. et., (1995), Economic Geography, John Wiley, New York.

3. Robertson D., (2001), Globalization and Environment, E. Elgar Co., U.K.

4. Saxena, H. M., (1990), Marketing Geography, Rawat Publication, Jaipur.

5. Dixit R.S., (1988), Spatial organization of Market centres, Pioneer Publ. Jaipur.

6. Bhatia A. K., (1996), International Tourism, Fundamentals & Practices, Sterling, New Delhi.

7. Khanna K. K. & Gupta V. K., (1982), Economic and Commercial Geography, Sultan Chand, New Delhi.

८. शंकर चौधरी (२००२), पर्यावरण व आर्थिक भूगोल, हिमालय पब्लिशिंग हाउस, मुंबई

९. सवदी व कोळ्हेकर (२००५), आर्थिक भूगोल, निराली प्रकाशन, पुणे

१०. चौगुले डी. जी. (२००५), दार्शनिक पर्यावरण, अजब प्रकाशन, कोल्हापूर

११. धारपुरे विठ्ठल (२००६), आर्थिक भूगोल, विप्लवापुरे पब्लिकेशन, नागपूर

१२. सवदी व कोळेर (२००७) , आथक भूगोल, मेहता
पुके षन, कोापुर

Note: 60 lectures including tutorial work.

Equivalence

Sr. No	Old paper	New paper
1	Commercial Geography- Paper I	Commercial Geography- Paper I
2	Introduction to Marketing Geography - Paper II	Introduction to Marketing Geography Paper - II

**Nature of Question Paper
(For all subjects at B. Com.)**

Question Paper structure for all courses except Financial Accounting and Business Mathematics.
Semester-end Examination Marks: 40 Internal Marks: 10

All questions are compulsory.

- | | |
|---------------------------------------|-----------|
| 1. MCQ (8 MCQs each for one mark) | (8 Marks) |
| 2. Long Answer Question | (8 Marks) |
| OR | |
| Long Answer Question | |
| 3. Long Answer Question | (8 Marks) |
| OR | |
| Long Answer Question | |
| 4. Short Answer Question (2 out of 3) | (8 Marks) |
| 5. Short Notes (2 out of 3) | (8 Marks) |

Question Paper structure for Financial Accounting and Business Mathematics which are
practical based courses

Semester-end Examination Marks: 40

Internal Marks: 10

Question number 1 and 2 are compulsory.

Attempt any 3 questions from question number 3 to 6.

- | | |
|-----------------------------------|-----------|
| 1. MCQ (8 MCQs each for one mark) | (8 Marks) |
| 2. Short Notes (2 out of 3) | (8 Marks) |
| 3. Problem based question | (8 Marks) |
| 4. Problem based question | (8 Marks) |
| 5. Problem based question | (8 Marks) |
| 6. Problem based question | (8 Marks) |
-

Equivalence

Semester-I			
Courses as per Pre-revised Syllabus		Courses as per Revised Syllabus	
CC-A5	CC-A5 Financial Accounting Paper-I	DSC-1	Financial Accounting Paper-I
CC-A1	Micro Economics Paper- I	DSC-2	Micro Economics Paper- I
CC-A3	Management Principles & Applications Paper- I	DSC-3	Management Functions & Applications Paper-I
GEC-A1	Principles of Marketing Paper- I	GEC-AA1	Principles of Marketing Paper- I
GEC-A3	History of Civilization Paper- I	GEC-AB1	History of Civilization Paper- I
GEC-A5	Marathi Paper- I	GEC-AC1	Marathi Paper- I
GEC-A7	Global Finance Paper- I	GEC-AD1	Global Finance Paper- I
GEC-A9	Hindi Paper- I	GEC-AE1	Hindi Paper- I
GEC-A11	Urdu Paper- I	GEC-AF1	Urdu Paper- I
GEC-A13	Kannada Paper- I	GEC-AG1	Kannada Paper- I
GEC- B1	Business Mathematics Paper- I	GEC-BA1	Business Mathematics Paper- I
GEC- B3	Insurance Paper- I	GEC-BB1	Insurance Paper- I
GEC- B5	Geography Paper I	GEC-BC1	Geography Paper I
GEC- B7	Foreign Trade Paper – I	GEC-BD1	Foreign Trade Paper – I
AECC-C1	Business Communication Paper- I	AECC-C1	Business Communication Paper- I
NIL		SEC-1	Skill Enhancement Course-1
NIL		SEC-2	Skill Enhancement Course-2

Semester-II			
Courses as per Pre-revised Syllabus		Courses as per Revised Syllabus	
CC-A5	CC-A5 Financial Accounting Paper-II	DSC-4	Micro Economics Paper- II
CC-A1	Micro Economics Paper- II	DSC-5	Financial Accounting Paper-II
CC-A3	Management Principles & Applications Paper- II	DSC-6	Management Functions & Applications Paper- II
GEC-A2	Principles of Marketing Paper- II	GEC-AA2	Principles of Marketing Paper- II
GEC-A4	History of Civilization Paper- II	GEC-AB2	History of Civilization Paper- II
GEC-A6	Marathi Paper- II	GEC-AC2	Marathi Paper- II
GEC-A8	Global Finance Paper- II	GEC-AD2	Global Finance Paper- II
GEC-A10	Hindi Paper- II	GEC-	Hindi Paper- II

		AE2	
GEC-A12	Urdu Paper- II	GEC-AF2	Urdu Paper- II
GEC-A14	Kannada Paper- II	GEC-AG2	Kannada Paper- II
GEC- B2	Business Mathematics Paper- II	GEC-BA2	Business Mathematics Paper- II
GEC- B4	Insurance Paper- II	GEC-BB2	Insurance Paper- II
GEC- B6	Geography Paper II	GEC-BC2	Geography Paper II
GEC- B8	Foreign Trade Paper – II	GEC-BD2	Foreign Trade Paper – II
AECC-C2	Business Communication Paper- II	AECC-C2	Business Communication Paper- II
NIL		SEC-3	Skill Enhancement Course-3

B.Com Part-I Semester-I

Syllabus in accordance with NEP-2020

With effect from A.Y. 2022-23

B.Com-I (Semester-I)

GEC-AH1 : Paper-I Indian Income Tax System and Income Tax Law

Income Tax Law (Applicable to Individual and HUF)

Credit: 4

60 hours course	Course content	Total 50 marks
Course outcomes	After completing this course, students will be able to 1) To understand the latest amendments in Income Tax Act, 1961. 2) To understand the technical aspects , procedure and provisions in Income Tax Act, 1961.	(Marks: 40 for examination 10 for Internal Assessment)
Unit-I	Introduction of Income Tax Act 1961 Meaning, Nature, extent, Scope, commencement of financial year	(15 hours)
Unit- II	Definitions – Previous year, Assessment Year, Person, Income, Agricultural Income, Assessee PAN information, Residential Status, Gross Total Income	(15 hours)
Unit-III	Income which do not form part of Total Income – Relating to Agricultural Income & Salary	(15 hours)
Unit-IV	Heads of Income – a) Salaries – Salary, Bonus, Gratuity, Leave Encashment, Provident Fund, Pension & Arrears Allowances – House Rent Allow, Entertainment Allow, Travelling Allow. Prequisites – Rent Free accommodation, Vehicle facilities, LTC, concessional loan, Medical Allow. b) Income from House Property – Self Occupied (SOP), Let out (LOP) c) Capital Gain – Short Term & Long Term	(15 hours)

Reference Books:

- 1) Income Tax Act- P. M. Herekar
- 2) Taxmann's – Income Tax Act
- 3) Income Tax Act- V. Singhania
- 4) Income Tax Act, 1961- AjitPrakashan

B.Com Part-I Semester-I

Syllabus in accordance with NEP-2020

With effect from A.Y. 2022-23

B.Com-I (Semester-I)

GEC-BE1 : Paper-II Goods and Service Tax

Credit: 4

60 hours course	Course content	Total 50 marks
Course outcomes	After completing this course, students will be able to 1) To understand the latest amendments in GST law 2) To understand the technical aspects , procedure and provisions in GST law	(Marks: 40 for examination 10 for Internal Assessment)
Unit-I	Introduction of GST Act 2017 Introduction of GST, Evolution of GST and need of GST	(15 hours)
Unit- II	Basic concepts of GST and Need and Importance of GST Act Meaning of SGST, EGST, IGST and UGST, Tax invoice, Debit and credit note	(15 hours)
Unit-III	Definitions under CGST and SGST. Definitions U/s 2 of GST Act 2017	(15 hours)
Unit-IV	Basic Problems – a) Problems to calculate SGST and b) Problems to calculate CGST	(15 hours)

Reference Books:

- 1) A Birds eye view- Jha and Singh
- 2) GST made simple- Taxman
- 3) Basics of GST- Taxman
- 4) GST guide for students – CA VivekAgarwal

B.Com Part-I Semester-II

Syllabus in accordance with NEP-2020

With effect from A.Y. 2022-23

B.Com-I (Semester-II)

GEC-AH2 : Paper-III Indian Income Tax System and Income Tax Law

Income Tax Law (Applicable to Individual and HUF)

Credit: 4

60 hours course	Course content	Total 50 marks
Course outcomes	After completing this course, students will be able to 1) To understand the latest amendments in Income Tax Act, 1961. 2) To understand the technical aspects , procedure and provisions in Income Tax Act, 1961.	(Marks: 40 for examination 10 for Internal Assessment)
Unit-I	Income from Business and Profession – Inclusion of income as business income, Allowable Expenses. Depreciation, Exclusion from Business Income.	(15 hours)
Unit- II	Income from other sources – Newly, heads, types of the source of Income.	(15 hours)
Unit-III	Clubbing of Income – a) Income from assets transferred to spouse, remuneration to spouse, Income of Minor – Problems b) Aggregation of Income and Set off and Carry forward of lossess	(15 hours)
Unit-IV	a) Deductions from Gross Total Income Chapter VI.A., U/s 80C, 80D, 80G, 80E, 80DD, 80L, 80U b) Relief of Income Tax U/s 89	(15 hours)

Reference Books:

- 1) Income Tax Act- P. M. Herekar
- 2) Taxmann's – Income Tax Act
- 3) Income Tax Act- V. Singhania
- 4) Income Tax Act, 1961- AjitPrakashan

B.Com Part-I Semester-II

Syllabus in accordance with NEP-2020

With effect from A.Y. 2022-23

B.Com-I (Semester-II)

**GEC-BE2 : Paper-IV Maharashtra State Tax on Profession Trade and calling and
Employment Act 1975 And GST Act 2017**

Credit: 4

60 hours course	Course content	Total 50 marks
Course outcomes	After completing this course, students will be able to 1) To understand the latest amendments in GST law 2) To understand the technical aspects , procedure and provisions in GST law	(Marks: 40 for examination 10 for Internal Assessment)
Unit-I	Registration Under GST Act 2017 – Procedure and Prescribed time limit for Registration U/s of Act.	(15 hours)
Unit- II	Definition Under GST Act 2017 related with IGST	(15 hours)
Unit-III	Profession Tax - 1) Meaning of Profession Tax, Extent and Applicaton 2) Definition – Employee, Employer, Salary, perquisite, Profit in lien of Salary 3) Levy and charges of Tax	(15 hours)
Unit-IV	1) Registration and Enrollment 2) Payment of Tax and due dates 3) Exemptions from profession Tax under the Act 4) Penalties under Act	(15 hours)

Reference Books:

- 1) A Birds eye view- Jha and Singh
- 2) GST made simple- Taxman
- 3) Basics of GST- Taxman
- 4) GST guide for students – CA VivekAgarwal

जा.क्र./शिवाजी वि./अ.मं./इतिहास/ 76

दि.२१/११/२०२२

प्रति,

मा. प्राचार्य/संचालक,
सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,
शिवाजी विद्यापीठ, कोल्हापूर

विषय : बी. कॉम. भाग १ History of Civilizations विषयाच्या अभ्यासक्रमाबाबत.
संदर्भ : या कार्यालयाचे पत्र क्र.३३२ दि.१९/०९/२०२२.

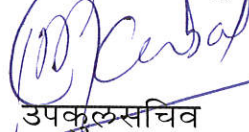
महोदय,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, शैक्षणिक वर्ष २०२२-२३ पासून लागू करण्यात आलेल्या बी. कॉम. भाग १ History of Civilizations विषयाच्या अभ्यासक्रमामध्ये किरकोळ दुरुस्ती करण्यात आलेली आहे. सोबत सदर अभ्यासक्रमाची प्रत जोडली आहे. तसेच विद्यापीठाच्या www.unishivaji.ac.in (Online Syllabus) या संकेतस्थळावर ठेवण्यात आला आहे.

सदर अभ्यासक्रम सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावी ही विनंती.

कळावे,

आपला विश्वासू,


उपकुलसचिव

सोबत : अभ्यासक्रमाची प्रत.

- प्रत : १. अधिष्ठाता, मानवविज्ञान विद्याशाखा.
२. समन्वयक, इतिहास अभ्यास मंडळ.
३. संचालक, परीक्षा व मुल्यमापन मंडळ कार्यालयास.
४. परिक्षक नियुक्ती ए व बी विभागास.
५. बी. कॉम. परीक्षा विभागास.
६. संगणक केंद्र/आय. टी. सेल विभागास.
७. दूरस्थ व ऑनलाईन शिक्षण विभाग.

माहितीसाठी व पुढील कार्यवाहीसाठी.

Shivaji University, Kolhapur



Accredited By NAAC with 'A ++ ' Grade
CHOICE BASED CREDIT SYSTEM

Syllabus in accordance with NEP

B. Com Part - I

Introduction to the History of Civilization (Sem I &II)

(Syllabus to be implemented from June, 2022 onwards.)

B.Com. (CBCS) Part-I (Semester-I)
Paper 1: Introduction to History of Civilization- I
(introduced from June, 2022)

(Objectives: Civilization first emerged between five and six thousand years ago when people in different parts of the world began to live in organized communities with distinct political, military, economic and social structures. Religious, intellectual and artistic activities assumed important roles in these early societies. This course introduces the students to some of the most important early civilizations of the world)

Module 1: Indian Civilization

- a) Indus Valley Civilization: Salient features and decline
- b) Vedic Civilization: Polity and religious literature
- c) Rise of 16 Mahajanpadas

Module 2. Mesopotamian Civilizations

- a) Rise of Sumerian Civilization: state, religion and art
- b) Babylonian Empire- Hammurabi's code and social structure

3. Egyptian Civilization - A Gift of Nile

- a) Government
- b) Society and Economy
- c) Religion and Art

4. Rise of Chinese Civilization

- a) Shang dynasty
- b) Chou dynasty
- c) Religion and Society

Suggested Readings:

- Adler, Philip J., and Randall L. Pouwels. World Civilizations. Cengage Learning, 2016.
- Bell, Michael, and Sarah Quie. Ancient Egyptian Civilization. The Rosen Publishing Group, 2009.
- Craig, Albert M., William A. Graham, Donald M. Kagan, Steven Ozment, and Frank M. Turner. The Heritage of World Civilizations. Pearson Education, 2015.
- Durant, Will. Our Oriental Heritage: Being a History of Civilization in Egypt and the Near East to the Death of Alexander, and in India, China and Japan from the Beginning to Our Own Day, with an Introduction on the Nature and Foundations of Civilization. MJF Books, 1993.
- Habib, Irfan. The Indus Civilization. Tulika Books, 2015.
- Johnson, Paul. The Civilization Of Ancient Egypt. Harper Collins, 2012.

- Kuiper, Kathleen. Mesopotamia: The World's Earliest Civilization. The Rosen Publishing Group, 2010.
- Matthews, Rupert, and Todd Van Pelt. Ancient Chinese Civilization. The Rosen Publishing Group, 2009.
- Moret, A. The Nile and Egyptian Civilization. Routledge, 2013.
- Sansone, David. Ancient Greek Civilization. John Wiley & Sons, 2016.
- Sen, Sailendra Nath. Ancient Indian History and Civilization. New Age International, 1999.
- Spielvogel, Jackson J. Western Civilization: A Brief History. Cengage Learning, 2016.
- Stearns, Peter N. Western Civilization in World History. Routledge, 2008.
- Thakur, Vijay. The Vedic Age. Tulika Books, 2016.
- Thapar, Romila. A History of India. Penguin UK, 1990.

B.Com. (CBCS) Part-I (Semester II)
Paper 2: Introduction to History of Civilization- II
(Introduced from June, 2022)

(Objectives: Western Civilization has evolved considerably over the centuries. The political, artistic and intellectual contributions of the Greeks and Romans were crucial to the foundation of Western Civilization. During the medieval period the Western Civilization witnessed the two most important movements –the Renaissance and Reformation- that have shaped the modern period. The course will introduce the students to important changes that happened in Western Civilization.)

Module 1: Rise of Classical Greece

- a) Emergence of City States
- b) Athenian Democracy
- c) Literature and arts

Module 2: Roman Civilization

- a) From Republic to Empire
- b) Socio-economic and religious condition
- c) Decline

Module 3: Renaissance in Europe

- a) Geographical Discoveries
- b) Humanism
- c) Development of Literature and Art

Module 4: Reformation in Europe

- a) Causes of Reformation
- b) Martin Luther and Calvin
- c) Impact of Reformation

Suggested Readings:

- Adler, Philip J., and Randall L. Pouwels. World Civilizations. Cengage Learning, 2016.
- Christ, Karl. The Romans: An Introduction to Their History and Civilisation. University of California Press, 1984.
- Craig, Albert M., William A. Graham, Donald M. Kagan, Steven Ozment, and Frank M. Turner. The Heritage of World Civilizations. Pearson Education, 2015.
- Kishlansky, Mark A., Patrick J. Geary, and Patricia O'Brien. A Brief History of Western Civilization: The Unfinished Legacy. Longman, 2002.
- Sansone, David. Ancient Greek Civilization. John Wiley & Sons, 2016.
- Spielvogel, Jackson J. Western Civilization: A Brief History. Cengage Learning, 2016.
- Stearns, Peter N. Western Civilization in World History. Routledge, 2008.
- Veyne, Paul. The Roman Empire. Harvard University Press

NATURE OF QUESTION PAPER AND SCHEME OF MARKING

B.A. Part- I

(Semester-I) Examination -----History -----

Title -----

Sub code ----- Day & Date : Time: Total Marks : 40

Instructions

1. All questions are Compulsory
2. Figures to right indicates full marks

Q 1 Complete the following sentences by choosing correct alternatives (05)

- 1.
- 2.
- 3.
- 4.
- 5.

Q 2 Write short notes (any three out of five) (15)

- A.
- B.
- C.
- D.
- E.

Q 3 Write detail answers on any two (out of three) of the following (20)

- A.
- B.
- C.

Internal Evaluation 10 Mark

B.Com.-I Semester-I - Home Assignment

B.Com.-I Semester-II – Unit Test



जा.क्र./शिवाजी वि./अ.मं./हिंदी/५९

दि.०५/११/२०२२

प्रति,

मा. प्राचार्य/संचालक,
सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,
शिवाजी विद्यापीठ, कोल्हापूर

विषय : बी. ए. व बी. कॉम भाग १ हिंदी (सक्तीचा) कोर्सच्या अभ्यासक्रमाबाबत...

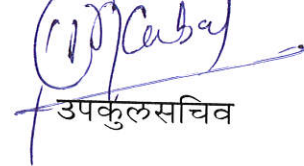
महोदय,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, शैक्षणिक वर्ष २०२२-२३ पासून लागू करण्यात आलेल्या बी. ए. भाग १ हिंदी (सक्तीचा) कोर्सच्या अभ्यासक्रमामध्ये किरकोळ दुरुस्ती करण्यात आलेली आहे. सोबत सदर अभ्यासक्रमाची प्रत जोडली आहे. तसेच विद्यापीठाच्या www.unishivaji.ac.in (Online Syllabus) या संकेतस्थळावर ठेवण्यात आला आहे.

सदर अभ्यासक्रम सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावी ही विनंती.

कळावे,

आपला विश्वासू,


उपकुलसचिव

सोबत : अभ्यासक्रमाची प्रत.

- प्रत : १. अधिष्ठाता, मानवविज्ञान विद्याशाखा.
२. समन्वयक, हिंदी अभ्यास मंडळ.
३. संचालक, परीक्षा व मुल्यमापन मंडळ कार्यालयास.
४. परिक्षक नियुक्ती ए व बी विभागास.
५. बी. ए. परीक्षा विभागास.
६. संगणक केंद्र/आय. टी. सेल विभागास.
७. दूरस्थ व ऑनलाईन शिक्षण विभाग.
माहितीसाठी व पुढील कार्यवाहीसाठी.

शिवाजी विश्वविद्यालय, कोल्हापुर
SHIVAJI UNIVERSITY, KOLHAPUR

हिंदी अध्ययन मण्डल
BOARD OF STUDIES

हिंदी (अनिवार्य)
कला, वाणिज्य विद्याशाखा
बी. ए. भाग –I

सत्र परीक्षा –I/II

(सत्र परीक्षा, श्रेणी तथा एनईपी २०२०)
(Semester, Credit and **2020 NEP** System)

शैक्षिक वर्ष 2022-23

शिवाजी विश्वविद्यालय, कोल्हापुर (महाराष्ट्र)

हिंदी अध्ययन मंडल

प्रथम वर्ष (कला, वाणिज्य, विज्ञान एवं अन्य विद्याशाखा)

GENERIC ELECTIVE COURSE (GEC)

सृजनात्मक और व्यावहारिक हिंदी लेखन

हिंदी (अनिवार्य)

(शैक्षिक वर्ष : 2022–23)

(प्रस्तुत पाठ्यक्रम का निर्माण विश्वविद्यालय अनुदान आयोग, नई दिल्ली की

मॉडल पाठ्यचर्या (NEP) के आलोक में किया गया है।)

प्रथम सत्र

प्रश्नपत्र – A : सृजनात्मक लेखन

उद्देश्य :

- हिंदी भाषा तथा व्याकरण का अध्ययन कराना।
- सृजनात्मक लेखन की विविध विधाओं—कविता, कहानी, यात्रावृत्त, रिपोर्ताज, साक्षात्कार, दृश्य—साहित्य, पत्रकारिता से परिचित कराना।
- सृजनात्मक लेखन के विविध क्षेत्रों का परिचय कराना।
- सृजनात्मक लेखन के विविध क्षेत्रों के महत्त्व तथा उपयोगिता से परिचित कराना।

अध्यापन पद्धति :

- व्याख्यान विश्लेषण।
- चर्चा—संगोष्ठी।
- संपादकों, उपसंपादकों तथा विद्वानों से साक्षात्कार।
- आई.सी.टी. का प्रयोग।

अध्ययनार्थ विषय :

Credit

Periods

- इकाई –I हिंदी भाषा तथा व्याकरण : सामान्य परिचय 01 15
व्याकरण : लिंग, वचन, कारक, विरामचिह्न, वाक्य के प्रकार,
मानक वर्तनी
- इकाई –II कविता, कहानी तथा यात्रावृत्त लेखन स्वरूप, महत्त्व तथा
उपयोगिता। 01 15
कविता, कहानी तथा यात्रावृत्त के क्षेत्र— सामाजिक, राजनीतिक,
सांस्कृतिक।
- इकाई –III रिपोर्टाज और साक्षात्कार लेखन, स्वरूप,
महत्त्व तथा उपयोगिता। 01 15
रिपोर्टाज के क्षेत्र— वाणिज्य, विज्ञान, तकनीकी।
रिपोर्टाज के क्षेत्र— साहित्य तथा सामाजिक।
- इकाई –IV दृश्य साहित्य लेखन तथा पत्रकारिता : स्वरूप, महत्त्व तथा
उपयोगिता। 01 15
दृश्य साहित्य लेखन के क्षेत्र— छायाचित्र, कार्टून (प्रश्नपत्र में
संबंधित मदों पर चित्र दिया जाएगा)।
पत्रकारिता के प्रकार : खेल पत्रकारिता, सिनेमा पत्रकारिता,
ग्रामीण पत्रकारिता।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन –	अंक
प्रश्न 1 – समग्र पाठ्यक्रम पर आठ बहुविकल्पी प्रश्न	08
प्रश्न 2 – समग्र पाठ्यक्रम पर टिप्पणियाँ (तीन में से दो)	08
प्रश्न 3 – समग्र पाठ्यक्रम पर लघुत्तरी प्रश्न (तीन में से दो)	08
प्रश्न 4 – अ) इकाई I और II पर दीर्घोत्तरी प्रश्न। (अंतर्गत विकल्प के साथ)	08
ब) इकाई III और IV पर दीर्घोत्तरी प्रश्न। (अंतर्गत विकल्प के साथ)	08
* अंतर्गत मूल्यमापन परीक्षा– स्वाध्याय / युनिट टेस्ट / क्षेत्र भेट / मौखिकी	10

संदर्भ ग्रंथ :

- मानक हिंदी – ब्रजमोहन, वाणी प्रकाशन, नई दिल्ली ।
- संक्षिप्त हिंदी व्याकरण – कामता प्रसाद गुरु, साहित्य अकादमी, नई दिल्ली ।
- व्यावहारिक हिंदी व्याकरण– डॉ.हरदेव बाहरी, वाणी प्रकाशन, नई दिल्ली ।
- आधुनिक हिंदी साहित्य का इतिहास– बच्चनसिंह, वाणी प्रकाशन, नई दिल्ली ।
- साहित्यिक विधाएँ : सैद्धांतिक पक्ष – डॉ.मधु धवन, वाणी प्रकाशन,
नई दिल्ली ।
- सुगम हिंदी व्याकरण – धर्मपाल शास्त्री, राजपाल एन्ड सन्स, नई दिल्ली ।
- व्यावहारिक हिंदी शुद्ध प्रयोग– डॉ.ओमप्रकाश, राजपाल एन्ड सन्स,
नई दिल्ली ।

द्वितीय सत्र

प्रश्नपत्र – B : व्यावहारिक लेखन

उद्देश्य :

- हिंदी के विविध रूपों का परिचय कराना।
 - प्रयोजनमूलक हिंदी का परिचय कराना।
 - पत्राचार का स्वरूप तथा प्रकारों का परिचय कराना।
 - अनुवाद, विज्ञापन और समाचार लेखन से परिचित कराना।
 - व्यावहारिक लेखन का महत्त्व तथा उपयोगिता से परिचित कराना।
-

अध्ययनार्थ विषय :

Credit Periods

इकाई –I हिंदी के विविध रूप तथा प्रयोजनमूलक हिंदी : 01 15

मातृभाषा, संपर्क भाषा, राजभाषा, सर्जनात्मक भाषा, कार्यालयीन हिंदी, वाणिज्यिक हिंदी, विज्ञापन की हिंदी, वैज्ञानिक तथा तकनीकी साहित्य की हिंदी।

इकाई –II पत्राचार : सामान्य परिचय 01 15

रोजगार प्राप्ति हेतु आवेदन पत्र (सरकारी, अर्ध सरकारी तथा गैर सरकारी)

इकाई –III अनुवाद और विज्ञापन : 01 15

स्वरूप, प्रकार, महत्त्व, उपयोगिता।

अनुवाद कार्य तथा विज्ञापन लेखन (विज्ञापन से संबंधित)

इकाई –IV समाचार लेखन तथा पत्रकारिता

01

15

स्वरूप, उद्देश्य तथा तत्त्व

समाचार लेखन तथा पत्रकारिता : संपादन तथा साजसज्जा ।

प्रश्नपत्र का स्वरूप तथा अंक विभाजन –	अंक
प्रश्न 1 – समग्र पाठ्यक्रम पर आठ बहुविकल्पी प्रश्न ।	08
प्रश्न 2 – समग्र पाठ्यक्रम पर टिप्पणियाँ । (तीन में से दो)	08
प्रश्न 3 – समग्र पाठ्यक्रम पर लघुत्तरी प्रश्न । (तीन में से दो)	08
प्रश्न 4 – अ) इकाई I और II पर दीर्घोत्तरी प्रश्न । (अंतर्गत विकल्प के साथ)	08
ब) इकाई III और IV पर दीर्घोत्तरी प्रश्न । (अंतर्गत विकल्प के साथ)	08
* अंतर्गत मूल्यमापन परीक्षा– स्वाध्याय / युनिट टेस्ट / क्षेत्र भेट / मौखिकी	10

संदर्भ ग्रंथ –

- समाचार एवं प्रारूप लेखन – डॉ.दिनेश गुप्त, राजकमल प्रकाशन, नई दिल्ली ।
- समाचार संपदन – कमल दीक्षित, महेश दर्पण, साहित्य अकादमी, नई दिल्ली ।
- प्रयोजनमूलक हिंदी विविध आयाम – डॉ.मनोज पांडेय, अकादमी प्रतिभा, नई दिल्ली ।

- व्यावसायिक संप्रेषण – डॉ.अनुपचंद्र पु. भयाणी, राजपाल एन्ड सन्स, कश्मिरी गेट, दिल्ली ।
- भाषा विज्ञान एवं हिंदी – डॉ.नरेश मिश्र, राजपाल एन्ड सन्स, कश्मिरी गेट, दिल्ली ।
- प्रामाणिक आलेखन और टिप्पण – प्रो.एम. ए. विराज, राजपाल एन्ड सन्स, कश्मिरी गेट, दिल्ली ।

SHIVAJI UNIVERSITY, KOLHAPUR

Under Graduate Programme Structure for Faculty of Humanities

Programme Structure for Bachelor of Arts (160 Credits)

SEM	Discipline Specific Core Courses (DSC) (Credits)	DSE/GEC/ OEC/IDS (Credits)	Ability Enhancement Compulsory Courses (AECC) / Languages (Credits)	Skill Enhancement Courses		Total Credits
				Skill Based Courses (Credits)	Value Based Courses (Credits)	
I	4 x 4 (16 Credits)	1 x 4 (4 Credits)	1 AECC (Comp. Eng.) 1 x 4 (4 Credits)	SEC -1 (1 Credit) Multidisciplinary	VBC (1 Credit)	26
II	4 x 4 (16 Credits)	1 x 4 (4 Credits)	1 AECC (Comp. Eng.) 1 x 4 (4 Credits)	SEC -2 (2 Credits) Multidisciplinary	---	26
Option 1: Exit with Certificate Course in Arts (With completion of courses equal to a minimum of 52 credits)						
III	4 x 4 (16 Credits)	(IDS) 1 x 4 (4 Credits)	2 AECC (Comp. Eng.) 1 x 4 (4 Credits)	SEC -3 (2 Credits) Multidisciplinary	---	26
IV	4 x 4 (16 Credits)	(IDS) 1 x 4 (4 Credits)	2 AECC (Comp. Eng.& EVS) 2 x 4 (8 Credits)	SEC -4 (2 Credits) Multidisciplinary	---	30
Option 2: Exit with Diploma Course in Arts (With completion of courses equal to a minimum of 108 credits)						
V	---	5 x 4 (20 Credits)	1 AECC (Comp. Eng.) 1 x 4 (4 Credits)	SEC -5 (2 Credits) Multidisciplinary	---	26
VI	---	5 x 4 (20 Credits)	1 AECC (Comp. Eng.) 1 x 4 (4 Credits)	SEC -6 (2 Credits) Multidisciplinary	---	26
Total Credits : 160						

DSC = Discipline Specific Core Course

DSE = Discipline Specific Elective (Elective courses offered under the main discipline/subject of study are referred to as *Discipline Specific Elective* course)

AECC = Ability Enhancement Compulsory Courses

SEC = Skill Enhancement Compulsory Courses SEC courses are value-based and / or skill-based and are aimed at providing hands-on- training, competencies, skills, etc.; These courses may be chosen from a pool of courses designed to provide value-based and/or skill-based knowledge.

IDS = Inter Disciplinary Studies.

GEC = Generic Elective Course.

VBC = Value-Based Course.

B.A. Programme Structure Semester I & II

Structure for Level 5 of B.A.											
Semester I											
Teaching Scheme						Examination Scheme					
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of Lectures	Hours	Credits	---	Paper Hours	Max	Min	Internal	Max*	Min
1.	DSC –I	4	3.2+0.8*	4	If applicable	2	40	14	Assignment	10	04
2.	DSC –I	4	3.2+0.8*	4		2	40	14		10	04
3.	DSC –I	4	3.2+0.8*	4		2	40	14		10	04
4.	DSC -I	4	3.2+0.8*	4		2	40	14		10	04
5.	GEC- 1	4	3.2+0.8*	4		2	40	14		10	04
6.	AECC-1	4	3.2+0.8*	4		2	40	14		10	04
7.	SEC -I	1	1	1		0.5	12.5	4.5		--	---
8.	VBC-I	1	1	1		0.5	12.5	4.5		--	---
Total		26	20.2+5.8* = 26	26		---	265	---		60	
										SEE+IA=265+60 = 325	

Semester II											
Teaching Scheme						Examination Scheme					
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of Lectures	Hours	Credits	---	Paper Hours	Max	Min	Internal	Max	Min
1.	DSC –II	4	3.2+0.8*	4	If applicable	2	40	14	Unit Test	10	04
2.	DSC –II	4	3.2+0.8*	4		2	40	14		10	04
3.	DSC –II	4	3.2+0.8*	4		2	40	14		10	04
4.	DSC -II	4	3.2+0.8*	4		2	40	14		10	04
5.	GEC- II	4	3.2+0.8*	4		2	40	14		10	04
6.	AECC-II	4	3.2+0.8*	4		2	40	14		10	04
7.	SEC -II	2	2	2		1	25	9		--	---
Total		26	19.2+6.8* = 26	26		---	265	---		60	
										SEE+IA=265+60 = 325	
Grand Total		52	52	52		---	530	--	---	SEE+IA=530+120 = 650	

Total Credits Required for Completing Level 5 : 52 Credits

(*Independent Students' Workload)

DSC: Discipline Specific Core Course - Students can opt four courses (Subjects) from DSC.(B)

However, Students shall have to opt for at least one language course (subject) from DSC.(A)
GEC: Generic Elective Course - Students can opt any one course (Subject).
AECC: Ability Enhancement Core Course (Compulsory English).
(A) Non-Credit Self-Study Course : Compulsory Civic Courses (CCC) For Sem I: CCC – I : Democracy, Elections and Good Governance
(B) Non-Credit Self-Study Course : Skill Development Courses (SDC) For Sem II: SDC – I : Any one from following (i) to (v) i) Business Communication & Presentation ii) Event management iii) Personality Development, iv) Yoga & Physical Management v) Resume, Report & Proposal writing
SEC: Skill Enhancement Course , Students have to complete one SEC each in both Semesters selecting from the platforms suggested in NEP Regulations of Shivaji University, Kolhapur (Refer SUK BOS letter dt. 12 Sep., 2022) or from the basket of SEC made available by Shivaji University, Kolhapur.
VBC: Value-Based Course , Students have to Complete one VBC in Semester I of one credit.

B.A. Programme Structure Semester III & IV

Structure for Level 6 of B.A.											
Semester III											
Teaching Scheme						Examination Scheme					
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of Lectures	Hours	Credits		Paper Hours	Max	Min	Internal	Max	Min
1.	DSC –III	4	3.2+0.8*	4	If applicable	2	40	14	Group Activity	10	04
2.	DSC -IV	4	3.2+0.8*	4		2	40	14		10	04
3.	DSC –III	4	3.2+0.8*	4		2	40	14		10	04
4.	DSC -IV	4	3.2+0.8*	4		2	40	14		10	04
5.	IDS- 1	4	3.2+0.8*	4		2	40	14		10	04
6.	AECC-III	4	3.2+0.8*	4		2	40	14		10	04
7.	AECC- EVS	--	--	--		--	--	--		--	---
8.	SEC -III	2	2	2		1	25	9		--	---
Total		26	19.2+6.8* = 26	26		---	265	---		60	
										SEE+IA=265+60= 325	

Semester IV												
Teaching Scheme						Examination Scheme						
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)			
	Course Type	No. of Lectures	Hours	Credits	---	Paper Hours	Max	Min	Internal	Max	Min	
1.	DSC –V	4	3.2+0.8*	4	If applicable	2	40	14	Case Study/Oral Examination	10	04	
2.	DSC –VI	4	3.2+0.8*	4		2	40	14		10	04	
3.	DSC –V	4	3.2+0.8*	4		2	40	14		10	04	
4.	DSC -VI	4	3.2+0.8*	4		2	40	14		10	04	
5.	IDS- II	4	3.2+0.8*	4		2	40	14		10	04	
6.	AECC-IV	4	3.2+0.8*	4		2	40	14		10	04	
7.	AECC-EVS	4	3.2+0.8*	4		3	70+30#	25+10		--	---	
8.	SEC -IV	2	2	2		1	25	9				
Total		30	22.4+7.6* = 30	30	---	365	---			60		
Grand Total		56	56	56	---	750	--				SEE+IA=365+60 = 425	
										SEE+IA=630+120 = 750		
Total Credits Required for Completing Level 6: 56 Credits												

(*Independent Students Workload, # 30 Marks Project Total 100 Marks)

DSC: Discipline Specific Core Course : Students can opt any two courses (Subjects) from DSC - C & DSC - D {Courses (subjects) which were opted in Part I (Sem I & Sem II)}
IDS : Inter Disciplinary Studies - Students can opt any one course (Subject) as per group chart of IDS.
AECC : Ability Enhancement Core Course (Compulsory English)& AECC – EVS : Ability Enhancement Compulsory Course – Environmental Studies
SEC : Skill Enhancement Course , Students have to complete one SEC each in both Semesters selecting from the platforms suggested in NEP Regulations of Shivaji University, Kolhapur (Refer SUK BoS letter dt. 12 Sep., 2022)

B.A. Programme Structure Semester V & VI

Structure for Level 7 of B.A.

Semester V											
Teaching Scheme						Examination Scheme					
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of Lectures	Hours	Credits		Paper Hours	Max	Min	Internal	Max	Min
1.	DSE –VII	4	3.2+0.8*	4	If applicable	2	40	14	Field Work/ Project Work	10	04
2.	DSE –VIII	4	3.2+0.8*	4		2	40	14		10	04
3.	DSE –IX	4	3.2+0.8*	4		2	40	14		10	04
4.	DSE –X	4	3.2+0.8*	4		2	40	14		10	04
5.	DSE -XI	4	3.2+0.8*	4		2	40	14		10	04
6.	AECC-V	4	3.2+0.8*	4		2	40	14		10	04
7.	SEC -V	2	2	2		1	25	9		--	---
Total		26	19.2+6.8* = 26	26		---	265	---		60	
										SEE+IA=265+60 = 325	

Semester VI											
Teaching Scheme						Examination Scheme					
Sr. NO.	Theory (TH)				Practical (PR)	Semester-end Examination (SEE)			Internal Assessment (IA)		
	Course Type	No. of Lectures	Hours	Credits	---	Paper Hours	Max	Min	Internal	Max	Min
1.	DSE-XII	4	3.2+0.8*	4	If applicable	2	40	14	Field Work/ Project Work/ Seminar	10	04
2.	DSE-XIII	4	3.2+0.8*	4		2	40	14		10	04
3.	DSE-XIV	4	3.2+0.8*	4		2	40	14		10	04
4.	DSE-XV	4	3.2+0.8*	4		2	40	14		10	04
5.	DSE-XVI	4	3.2+0.8*	4		2	40	14		10	04
6.	AECC-VI	4	3.2+0.8*	4		2	40	14		10	04
7.	SEC -VI	2	2	2		1	25	9			
Total		26	19.2+6.8* = 26	26		---	265	---			60
Grand Total		52	52	52	---	530	--		SEE+IA=265 +60 = 325		
SEE+IA=530 + 120 = 650											
Total Credits Required for Completing Level 7: 52 Credits											
Total Credits for Completing Level 5, 6 & 7 of Bachelor of Arts Programme : 52+56+52=160											
(*Independent Students Workload)											

DSE: Discipline Specific Elective - Students can opt any one course (Subject) from DSC {Course

(subject) which was opted in Part II (Sem III & Sem IV)}(Note : DSE paper No. VII to XVI are elective papers whereas, DSC Paper No. I to VI are core courses. Hence, DSE paper VII to XVI should be considered in continuation of DSC I to VI.)
AECC : Ability Enhancement Core Course (Compulsory English)
(A) Non-Credit Self Study Course : Compulsory Civic Courses (CCC) For Sem V: CCC – II : Constitution of India and Local Self Government
(B) Non-Credit Self Study Course : Skill Development Courses (SDC) For Sem VI: SDC – II: Any one from following (vi) to (x) vi) Interview & Personal Presentation Skill, vii) Entrepreneurship Development Skill, viii) Travel & Tourism, ix) E-Banking & Financial Services, x) RTI & Human Right Education (HRE), IPR & Patents
SEC:Skill Enhancement Course , Students have to complete one SEC each in both Semesters selecting from the platforms suggested in NEP Regulations of Shivaji University, Kolhapur (Refer SUK BoS letter dt. 12 Sep., 2022)

शिवाजी विश्वविद्यालय, कोल्हापुर (महाराष्ट्र)

हिंदी अध्ययन मंडल

2022 से पुनर्रचित पाठ्यक्रम की समकक्षता			
प्रथम वर्ष (कला, वाणिज्य, विज्ञान एवं अन्य विद्याशाखा)			
	हिंदी (आवश्यक)		हिंदी (अनिवार्य) (GEC)
अ.क्र.	पुराना पाठ्यक्रम	अ.क्र.	नया पाठ्यक्रम
1	सत्र - 1 अभ्यासपत्रिका क्र. A प्रयोजनमूलक हिंदी और कहानी साहित्य	1	सत्र - 1 अभ्यासपत्रिका क्र. A सर्जनात्मक लेखन
2	सत्र - 2 अभ्यासपत्रिका क्र. B प्रयोजनमूलक हिंदी और कहानी साहित्य	2	सत्र - 2 अभ्यासपत्रिका क्र. B व्यावहारिक लेखन
बी.ए. भाग - 1			
	हिंदी (ऐच्छिक)		हिंदी (विशेष ऐच्छिक) (DSEC)
1	सत्र - 1 अभ्यासपत्रिका क्र. 1 आधुनिक हिंदी साहित्य	1	सत्र - 1 अभ्यासपत्रिका क्र. 1 हिंदी कविता
2	सत्र - 2 अभ्यासपत्रिका क्र. 2 आधुनिक हिंदी साहित्य	2	सत्र - 2 अभ्यासपत्रिका क्र. 2 हिंदी गद्य साहित्य

**SHIVAJI UNIVERSITY,
KOLHAPUR**



Accredited by NAAC 'A++' Grade

**CHOICE BASED CREDIT SYSTEM WITH
MULTIPLE ENTRY AND MULTIPLE EXIT OPTIONS IN THE
UNDERGRADUATE DEGREE PROGRAMMES**

SUBJECT :- NCC (MILITARY SCIENCE)

(Regulations in accordance with National Education Policy

2020 to be implemented from Academic Year

2022-23 onwards)

B.Com. PART – I SEMESTER- I (CBCS)

PAPER -I GEC.B.F.1

NCC [Military Science] (Optional)

Basic Training in NCC

Module I: NCC Organization: (15)

- a) General Introduction to Defence Service.
 - i) Army ii) Navy iii) Air Force
- b) Organization of NCC, Moto and objectives of NCC
- c) Incentives of NCC
- d) NCC song

Module II: Hygiene, Sanitation and Posture training. (15)

- a) Personal hygiene & preventive measures.
- b) Purification of water & its storage
- c) Causes of bad posture and remedial & preventive measures.
- d) Correct standing & exercise.

Module III: Demonstration I (15)

(Drill and Weapon Training)

- a) Attention. Stand at ease and stand easy, turning
- b) Sizing forming up in threes, open and close order march and dressing.
- c) Characteristics and parts of Rifle.
- d) Loading, Unloading & Bolt Operations

Module IV: Demonstration II (15)

(Nursing)

- a) Introduction to Home Nursing.
- b) Roller Bandage and its application.
- c) The Sick room; Preparation. Cleaning, Lighting & Ventilation.
- d) Pulse, Respiration & Temperature recording.

B.Com. PART – I SEMESTER- II (CBCS)

PAPER -II GEC.B.F.2

NCC [Military Science] (Optional)

Adventure Activities in NCC

Module V: Adventure Training (15)

- a) Aims of Adventure Training.
- b) Types of Adventure activities.
- c) Advantages of Adventure activities.
- d) Organization of Adventure activities.

Module VI: Leadership (15)

- a) Discipline and Duties.
- b) Duties of good citizen.
- c) Leadership Traits.
- d) Man Management.

Module VII: Demonstration III (15)

[Drill & Weapon Training]

- a) Saluting at halt. Getting on Parade, Falling out & Visarjan.
- b) Marching in quick time & halt.
- c) Stripping, assembling, care and cleaning.
- d) Holding & trigger operation and firing.

Module VIII: Demonstration IV (15)

[NCC - Social Services]

- a) Types of social service - i) Tree plantation ii) Blood donation iii) Aids awareness iv) Adult Education v) Anti Dowary
- b) Aid during natural calamities.
- c) Fire fighting and equipments of fire fighting operation.
- d) Adventure activity – One day Trekking or Cycle Expedition or Awareness Rally.

B.Com. PART – I (CBCS)
NCC [Military Science] (Optional)

NATURE OF QUESTION PAPER

Semester – I / II [THEORY]

Marks : 25

Q. 1	Multiple Choice questions	05
Q. 2	Long answer type question	10
	OR	
Q.2	Long answer type question	10
Q. 3	Write short notes on any two [Any 2 out of 4]	10

DEMONSTRATION

Semester – I

Marks : 25

i)	Drill and Weapon Training	15
ii)	Nursing	10

DEMONSTRATION

Semester – II

Marks : 25

i)	Drill and Weapon Training	15
ii)	NCC -Social Services Social Service	10

- Note: 1) Only NCC Cadets are eligible to offer this subject.
2) Only Permanent Senior College Regular Commissioned Associate NCC Officers (ANOs) Senior College Retired NCC Officer are Eligible to teach this Subject.
3) In second semester to take CBCS Module atleast 10 students have to take admission and maximum of 20 students are to be admitted.
4) For the assessment of Demonstration work an external ANO of Rank Captain or above have to be appointed.

Reference Books :

1. संरक्षण शास्त्र आणि संघटना - Lt.Col.M.G.Abhyankar कैसरी मुद्रणालय. 568 नारायण पेठ, पुणे-30
- 2 . युद्ध जिज्ञासा - प्रकाशक - म.वा.चि 'चवडकर, स्पार्टन पब्लिशर्स', 1880, सदाशिव पेठ, नातूबाग, पुणे-30
3. Military - Directorate General N.C.C. (Trg/A) Ministry of Defence, New Delhi.
4. Cadets hand book - Directorate General N.C.C. (Trg/A) Ministry of Defence - New Delhi.
5. Civil Defence - Warden's Manual - Director C.D.Maharashtra
6. Indian Armed Forces Year-Book
7. A Hand-Book of First-aid by Dr.V.N. Bhave
8. Defence Organization in India : Venkateshwaram A. L.
9. Bhartiya Sainya Ithas : Choudhari and Mandhare 10. India's Defence Policy : Gautam Sen.



Estd. 1962
NAAC 'A' Grade

SHIVAJI UNIVERSITY, KOLHAPUR-416 004. MAHARASHTRA

PHONE : EPABX-2609000 website- www.unishivaji.ac.in

FAX 0091-0231-2691533 & 0091-0231-2692333 – BOS - 2609094

शिवाजी विद्यापीठ, कोल्हापूर – 416004.

दुरध्वनी (ईपीएवीएक्स) २६०९००० (अभ्यास मंडळे विभाग— २६०९०९४)

फॅक्स : ००९१-०२३१-२६९१५३३ व २६९२३३३. e-mail: bos@unishivaji.ac.in

Ref../SU/BOS/Com & Mgmt./ 6032

Date : 17/06/2019

To,

The Principal
All Affiliated (Commerce & Management) College/Institutions,
Shivaji University, Kolhapur

**Subject : Regarding syllabi and equivalence of B. Com. Part-II (Sem. III & IV)
Choice Based Credit System (CBCS) degree programme under the
Faculty of Commerce & Management.**

Sir/Madam,

With reference to the subject mentioned above, I am directed to inform you that the University authorities have accepted and granted approval to the revised syllabi and equivalence of B. Com. Part-II (Sem. III & IV) Choice Based Credit System (CBCS) under the Faculty of Commerce & Management.

This syllabi and equivalence shall be implemented from the academic year 2019-2020 (i.e. from June, 2019) onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in (Online Syllabus).

The question papers on the pre-revised syllabi of above mentioned course will be set for the examinations to be held in October / November 2019 & March / April, 2020. These chances are available for repeater students, if any.

For Students of Distance Education this syllabi shall be implemented from the academic year 2020-2021 (i.e. from June, 2020) onwards

You are therefore, requested to bring this to the notice of all Students and Teachers concerned.

Thanking you,

Yours faithfully,

Dr. Registrar

Encl : As above

Copy to,

- | | | |
|---|---|---------------------------------------|
| 1. I/c Dean, Faculty of Commerce & Management | } | for information |
| 2. Chairman, BOS under Faculty of Commerce & Management | | |
| 3. Director, BOEE | } | for information and necessary action. |
| 4. Appointment Section | | |
| 5. P. G. Admission Section | | |
| 6. B. Com. Section | | |
| 7. Affiliation Section (U.G./P.G.) | | |
| 8. Computer Center/I.T. | | |
| 9. Eligibility Section | | |
| 10. Distance Education | | |
| 11. P.G. Seminar Section | | |

SHIVAJI UNIVERSITY KOLHAPUR



Estd. 1962

NAAC 'A' Grade

Faculty of Commerce & Management

Syllabus For

Bachelor of Commerce

B. Com. Part II

(Sem III & IV)

To be implemented from June 2019 onwards.

(Subject to the modifications that will be made from time to time)

Shivaji University, Kolhapur
B.Com (CBCS) Part-II (Semester-III)
Corporate Accounting Paper - I
Core Course
Introduced from June-2019-20

4 Credits

Course Outcomes:

1. Explain the accounting entries of issue and forfeiture of shares and re-issue of forfeited shares, discuss accounting treatment for redemption of preference shares and buyback of shares.
2. Demonstrate accounting for issue of debentures and redemption of debentures.
3. Simulate practice of preparing financial statements as per the provisions of Indian Companies Act 2013.
4. Practice the fundamental accounting process on Tally ERP.

Syllabus Contents

Unit I: Issue and forfeiture of shares, Re-issue of forfeited shares, Redemption of preference shares and Buyback of shares. (15 Periods)

Unit II: Issue and Redemption of Debentures (10 Periods)

Unit III: Preparation of Final Accounts of Companies. (15 Periods)

Unit IV: Practical of Fundamental Computerised Accounting (20 Periods)

- a) Introduction to Tally ERP.9, Technological Advantages, Getting Functional with Tally ERP.9, Tally ERP.9 Start-up, Mouse/Keyboard Conventions, Switching between Screen Areas, Quitting Tally ERP.9, Setting up of Company in Tally ERP.9,
- b) Create a Company- Select a Company, Alter a Company, Shut a Company, Creating Accounting Masters in Tally ERP.9, Chart of Accounts,
- c) Pre-defined Groups of Accounts, Groups- Creating Single Group, Creating Multiple Group, Displaying Group, Altering Group,
- d) Ledgers, Creating Single Ledger, Creating Multiple Ledger, Displaying Ledger, Altering Ledger, Voucher Entry in Tally ERP.9,
- e) Accounting Vouchers- Contra Voucher (F4), Payment Voucher (F5), Receipt Voucher (F6), Journal Voucher (F7), Purchase (F9), Sales (F8), Debit Note (Ctrl + F9), Credit Note (Ctrl + F8),
- f) Financial Statements- Balance Sheet, Profit & Loss A/c., Trial Balance,
- g) Accounting Books and Registers- Cash Book, Bank Book, Purchase Register, Sales Register, Journal Register, Debit Note Register, Credit Note Register and Day Book.

Notes:

- 1) College should make a provision of necessary computers and accounting software for commerce department to train the students in Computerised Accounting as prescribed in the syllabus.
- 2) A visit should be arranged for increasing awareness of students regarding Corporate Accounting either in any Company Office or the Office of any Chartered Accountant/ Professional Accountant.

Reference Books:-

- 1) Gupta, S. C.; Gupta, M. P.; Shukla, M. C.; Agrawal, B. M. and Grewal, T. S. (2019). Advanced Corporate Accounting, New Delhi: S. Chand & Company.
- 2) Shukla, M. C.; Grewal, T. S. and Gupta, S. C.; (2016). Advanced Accounts, New Delhi: S. Chand & Company.
- 3) Arulnandan, M. A. and Raman, K. S. (2018). Advanced Accountancy (Corporate Accounting) Vol. II, Mumbai: Himalaya Publishing House.
- 4) Gupta, R. L. and Radhaswamy, M. (2018). Advanced Accountancy Vol. II, New Delhi: Sultan Chand and Sons.
- 5) Maheshwari, S. N.; Maheshwari, Suneel and Maheshwari, Sharad K. (2018). Corporate Accounting. New Delhi: Vikas Publication House.
- 6) Shukla M. C. ; Grewal T.S. and Gupta S.C. - Advanced Accounts, New Delhi: S.Chand and Co.
- 7) Jain, S. P.; Narang, K. L.; Agrawal, Simmi and Sehgal, Monik (2018). Advanced Accountancy (Corporate Accounting) Vol. II, New Delhi: Kalyani Publishers.
- 8) Hanif, M. and Mukharjee, A (2018). Modern Accountancy Vol. II, Noida: McGraw Hill Education India (Private) Ltd.
- 9) Chakraborty, Hrishikesh, Advanced Accountancy, Oxford University Press
- 10) Chougule, Rajan (2011). Computerized Accounting, Kolhapur.
- 11) Tulsian, P. C. and Tulsian, Bharat (2015). Corporate Accounting, New Delhi: S. Chand Publishing.

Shivaji University, Kolhapur
B.Com. (CBCS) Part-II (Semester-IV)
Corporate Accounting Paper - II
Core Course
Introduced from June-2019-20

4 Credits

Course Outcomes:

1. Explain the accounting entries of profit/loss prior to incorporation.
2. Compute the value of shares as per distinct methods and differentiate between them.
3. Simulate practice of accounting for liquidation of companies.
4. Practice the store accounting through Tally ERP.

Unit -I: Profit /Loss Prior to Incorporation. (15 Periods)

Unit-II: Valuation of shares: Intrinsic value method, Market value Method (Capitalization of profit and dividend basis) Fair value. **(10 Periods)**

Unit-III: Accounting for Liquidation of companies- Process of Liquidation under Insolvency and Bankruptcy Code, Preparation of Liquidator's Final Statement of Account. **(15 Periods)**

Unit-IV: Store Accounting with Practical using Tally. (20 Periods)

Theory:

- a) Basic Concepts of Store Accounting- Importance of Material Management and Inventory Control, Objectives of Inventory Control System, Functions and Duties of Store-keeper,
- b) Key Terms- Stock items, Category of item, Item Name, Unit of Measurement- Purchase Rate per Unit, Current Stock Quantity, Current Valuation Rate, Opening Stock Quantity, Opening Valuation Rate, Purchase Returns, Sales Returns
- c) Stock Valuation Methods- Source document, Types of Source documents, Purchase Invoice, Goods Received Note, Sales Invoice, Delivery Challan
- d) Tally Reports of Store Accounting- Bill-wise List of Stock Items, Stock Statement, Material Receipts/ Purchases Register, Material Issues/ Sales Register, Material Return Report, Slow Moving Items Report, Fast Moving Items Report.

Practical:

- a) Creating Inventory Masters in Tally.ERP 9, Stock Groups- Creating Single Stock Group, Creating Multiple Stock Group, Displaying Stock Group, Altering Stock Group,
- b) Units of Measure- Simple Units, Creating Simple Units, Displaying Units of Measure, Deleting Units of Measure
- c) Stock Items- Creating Single Stock Items, Creating Multiple Stock Items, Displaying Stock Items, Altering Stock Items,
- d) Voucher Entry in Tally.ERP 9- Purchase Voucher (F9), Sales Voucher (F8), Credit Note Voucher (Ctrl + F8), Debit Note Voucher (Ctrl + F9)
- e) Financial Statements- Balance Sheet, Profit & Loss A/c., Trial Balance,

- f) Accounting Books & Registers- Cash Book, Bank Book, Purchase Register, Sales Register, Journal Register, Debit Note Register, Credit Note Register, Day Book, Statistics,
- g) Inventory Books & Reports- Stock Summary, Stock Item Summary, Stock Group Summary, Exception Reports- Negative Stock, Negative Summary.

Notes:

- 1) College should make a provision of necessary computers and accounting software for commerce department to train the students in Computerised Accounting as prescribed in the syllabus.
- 2) A visit should be arranged for increasing awareness of students regarding Corporate Accounting either in any Company Office or the Office of any Chartered Accountant/ Professional Accountant.

Reference Books:-

- 12) Gupta, S. C.; Gupta, M. P.; Shukla, M. C.; Agrawal, B. M. and Grewal, T. S. (2019). Advanced Corporate Accounting, New Delhi: S. Chand & Company.
- 13) Shukla, M. C.; Grewal, T. S. and Gupta, S. C.; (2016). Advanced Accounts, New Delhi: S. Chand & Company.
- 14) Arulnandan, M. A. and Raman, K. S. (2018). Advanced Accountancy (Corporate Accounting) Vol. II, Mumbai: Himalaya Publishing House.
- 15) Gupta, R. L. and Radhaswamy, M. (2018). Advanced Accountancy Vol. II, New Delhi: Sultan Chand and Sons.
- 16) Maheshwari, S. N.; Maheshwari, Suneel and Maheshwari, Sharad K. (2018). Corporate Accounting. New Delhi: Vikas Publication House.
- 17) Shukla M. C. ; Grewal T.S. and Gupta S.C. - Advanced Accounts, New Delhi: S.Chand and Co.
- 18) Jain, S. P.; Narang, K. L.; Agrawal, Simmi and Sehgal, Monik (2018). Advanced Accountancy (Corporate Accounting) Vol. II, New Delhi: Kalyani Publishers.
- 19) Hanif, M. and Mukharjee, A (2018). Modern Accountancy Vol. II, Noida: McGraw Hill Education India (Private) Ltd.
- 20) Chakraborty, Hrishikesh, Advanced Accountancy, Oxford University Press
- 21) Chougule, Rajan (2011). Computerized Accounting, Kolhapur.
- 22) Tulsian, P. C. and Tulsian, Bharat (2015). Corporate Accounting, New Delhi: S. Chand Publishing.

Nature of Question Paper
B.Com. Part-II
Under CBCS
Subject: Corporate Accounting Paper-I (Semester-III)
Core Course
(Introduced from June-2019-20)

Instructions:- 1- All questions are compulsory.
 2-Figures to the right indicate marks.

Total Marks- 40

Q.No.1 Short Answer Questions:

- | | |
|---|---------|
| a) Question on Theory of Unit-1 Or Question on Theory of Unit-1 | 5 marks |
| b) Question on Problem of Unit-1 Or Question on Problem of Unit-1 | 5 marks |

Q.No.2 Short Answer Questions:

- | | |
|---|---------|
| a) Question on Theory of Unit-2 Or Question on Theory of Unit-2 | 5 marks |
| b) Question on Problem of Unit-2 Or Question on Problem of Unit-2 | 5 marks |

Q.No.3 Questions:

- | | |
|---|----------|
| a) Question on Theory of Unit-3 Or Question on Theory of Unit-3 | 5 marks |
| b) Question on Problem of Unit-3 Or Question on Problem of Unit-3 | 10 marks |

Q.No.4 Short Answer Questions:

- | | |
|---|---------|
| a) Question on Theory of Unit-4 Or Question on Theory of Unit-4 | 5 marks |
|---|---------|

Notes:

- 1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-I.
- 2) External examiner will be appointed by the university to conduct this practical examination.
- 3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

Nature of Question Paper
B.Com. Part-II
Under CBCS
Subject: Corporate Accounting Paper-II (Semester-IV)
Core Course
(Introduced from June-2019-20)

Instructions:- 1- All questions are compulsory.
 2-Figures to the right indicate marks.

Total Marks- 40

Q.No.1 Short Answer Questions:

- | | |
|---|---------|
| c) Question on Theory of Unit-1 Or Question on Theory of Unit-1 | 5 marks |
| d) Question on Problem of Unit-1 Or Question on Problem of Unit-1 | 5 marks |

Q.No.2 Short Answer Questions:

- | | |
|---|---------|
| c) Question on Theory of Unit-2 Or Question on Theory of Unit-2 | 5 marks |
| d) Question on Problem of Unit-2 Or Question on Problem of Unit-2 | 5 marks |

Q.No.3 Questions:

- | | |
|---|---------|
| c) Question on Theory of Unit-3 Or Question on Theory of Unit-3 | 5 marks |
|---|---------|

d) Question on Problem of Unit-3 Or Question on Problem of Unit-3 10 marks

Q.No.4 Short Answer Questions:

b) Question on Theory of Unit-4 Or Question on Theory of Unit-4 5 marks

Notes:

- 1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-I.
- 2) External examiner will be appointed by the university to conduct this practical examination.
- 3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

Shivaji University, Kolhapur
B.Com (CBCS Pattern)
Part-II (Semester-III)
Fundamentals of Entrepreneurship- Paper-I
Generic Elective Course
Introduced from June-2019-20

Credits-4

Objectives-

1. To impart theoretical knowledge of Entrepreneurship
2. To develop Entrepreneurship qualities and skills
3. To acquaint students with Steps involved in the formation of Small Enterprises
4. To enlighten students with Recent Trends and Concepts in Entrepreneurship

Unit-I	Entrepreneur:- Evolution, Meaning and Definition, Functions, Qualities of successful entrepreneur, Types of Entrepreneur, Obstacles to become an Entrepreneur, Challenges before existing entrepreneur in modern era.	15 Hours
Unit-II	Entrepreneurship and Entrepreneurship Development: Concept, Definitions, Importance, Theories- Joseph Schumpeter's Theory of Innovation, Hagen's theory of Status Withdrawal, David McClelland's Need for Achievement theory, Knight's Risk Taking theory, Entrepreneurship Development- Concept and Process. Introduction, Functions and Performance of – EDI, MCED And DIC	15 Hours
Unit-III	Micro, Small and Medium Enterprises(MSME): Definition, Importance, Problems of MSME and Remedies, Government Policy and Support, Steps involved in the formation of Small Enterprises- Location, Clearances, Permits required, Formalities, Licensing and Registration Procedure.	15 Hours
Unit-IV	Recent Trends and Concepts in Entrepreneurship: Recent Trends- Start up, Stand up, Skill India, Make in India, Incubation Centre- Concept and Importance. Concepts- Sociopreneur, Edupreneur, Ecopreneur, Netpreneur, Intrapreneur(Only concept and Characteristics)	15 Hours

Shivaji University, Kolhapur
B.Com (CBCS Pattern)
Part-II (Semester-IV)
Fundamentals of Entrepreneurship- Paper-II
Generic Elective Course
Introduced from June-2019-20

Credits-4

Objectives-

1. To acquaint students with family business in India
2. To impart conceptual knowledge of Service and Agro Entrepreneurship
3. To aware students about Business Plan and Project Report
4. To inspire the students through successful stories of Entrepreneurs

Unit-I	Family Business: Meaning, Types, Advantages and Disadvantages of Family Business, Challenges before family business in India, Business Succession Planning, Making family business more effective.	15 Hours
Unit-II	Service and Agro Entrepreneurship: A) Service Entrepreneurship- Meaning and Concept, Role of Service sector in National Economy, Opportunities in Service sector. B) Agro Entrepreneurship- Meaning and Concept, Importance, Entrepreneurial Opportunities in Agro Sector, Challenges before Agro Entrepreneurship	15 Hours
Unit-III	Business Plan and Project Report: Meaning and Concept of Business Plan, Key elements of business plan. Meaning, Concept and classification of project. Project for Retail store, Beauty parlor, Oil Mill, Cold Storage, Eco friendly Bag production- Reasons for failure of project.	15 Hours
Unit-IV	Women Entrepreneurship and Successful Entrepreneurs Women Entrepreneur- Concept and causes of limited growth of women entrepreneurs in India. Successful Entrepreneurs- Male- Jeff Bezos(Amazon), Hanmantrao Gaikwad (BVG), Chitale Brothers (Chitale Dairy), Ramdas Mane (Mane Group of Industries) Female- Aditi Gupta (Whisper Girl), Chetana Gala-Sinha (Manadeshi Foundation), Vandana Luthra (VLCC),	15 Hours

Note – Industrial visit/ visit to EDP Institute is suggested to acquaint students about entrepreneurial knowledge.

A talk or interaction with entrepreneurial should be arranged.

B.Com.II
Semester III and IV (CBCS Pattern)
Fundamentals of Entrepreneurship Paper I & II
Nature of Question Paper

Instructions:**Total Marks: 50**

1. All questions carry equal marks
2. Attempt any five questions out of seven

Q.1	Write short answers (Any two out of Three)	10 Marks
Q.2	Broad Question	10 Marks
Q.3	Broad Question	10 Marks
Q.4	Broad Question	10 Marks
Q.5	Broad Question	10 Marks
Q.6	Broad Question	10 Marks
Q.7	Write Short Notes (Any two out of Three)	10 Marks

Equivalence

Sr.No.	Old Name	New Name
1	Fundamentals of Entrepreneurship Paper - I	Fundamentals of Entrepreneurship Paper - I
2	Fundamentals of Entrepreneurship Paper - II	Fundamentals of Entrepreneurship Paper - II

Reference Books:

1. Dynamics of Entrepreneurial Development and Management- by Vasant Desai
2. Udyojakata- by Prabhakar Deshmukh
3. Entrepreneurship Development in India- by C.B. Gupta and N.P. Shrinivasan
4. Entrepreneurship and Small Business Management- by Shukla M.B.
5. Entrepreneurial Development- by Dr. S.S. Khanka
6. Entrepreneurial Development- by Godron E. and Natrajan K.
7. Entrepreneurial Development- by Taneja Satish and Gupta S.L.
8. Current Trends in Entrepreneurship - by Mohan S. Elangovan R.
9. Project Preparation Appraisal, Implementation- by Prasanna Chandra
10. Formulation of a Project Report- by Vinod Gupta

Shivaji University, Kolhapur

Syllabus of B.Com

(Semester-III & IV)

Syllabus to be Introduced from June 2019

Money and Financial System

CHOICE-BASED CREDIT SYSTEM

B.Com SEM III

Money and Financial System (Paper No – 1)

Course Outcomes:

1. Learners will be able to explain functions of money and measurement of money supply
2. Learners will understand the banking system and its functioning in India
3. Learners will understand the nature of banking business and business practices
4. Learners will understand the important recent trends in banking system

Expected Skills Impartation (Through theory and Practical's)

1. Ability to explain monetary system in India
2. Ability to critical thinking on banking business
3. Ability to explain recent trends in Indian Banking

Marks : 50

Total Lectures of Teaching : 60

Credits : 4

Unit-1:	Introduction to Money 1.1 Evolution, Meaning and Functions of Money 1.2 Meaning and Features of Blockchain Technology and Digital Currency 1.3 Approaches to the Money supply, RBI's Measures 1.4 Constituents and Factors affecting on Money Supply	13 Lectures
Unit-2:	Introduction to Banking 2.1. Meaning, Evolution and Functions of Commercial Banks 2.2. Types and features of banks - Commercial, Cooperative, Public and Private, Foreign, Payment Banks, Small Finance Banks, Local Area Banks etc 2.3. Principles of Banking Business and its importance 2.4. Process of Credit Creation and Its limitations	15 Lectures
Unit-3:	Banking Business and Practices 3.1. Meaning, Types and Features of Deposits Products of Banks 3.2. Meaning, Types and Features of Loan Products of Banks 3.3. Sources of Funds and Income for Banks 3.4. Changing Nature of Banking Business	17 Lectures
Unit-4:	New Trends and Recent Issues in Indian Banking 4.1 Micro Finance Institutions- Evolution, Functions and Importance 4.2 Types, Advantages and Disadvantages of Bank Mergers 4.3 Licensing and functioning of Payment Banks Small Finance Banks 4.4 Meaning, Causes and Remedies for NPA, Prompt Correctives Action	15 Lectures

Note: Bank visits and case studies on banking business should be conducted

Suggested Additional Readings:

1. Bhole L.M. (2009), Financial Institutions and Market, Tata McGraw Hill, New Delhi
2. Bhasin Nitin (2010), Financial Institutions and Financial Markets in India :Functioning and Reforms. New Century Publications, New Delhi
3. Berg Braam van den (2015), Understanding Financial Markets & Instruments, Academy of Financial Market, <https://eagletraders.com/books/afm/afm4.php>
4. Cade, Eddie (1998) Managing Banking Risks, Woodhead Publishing Ltd., in association with The Chartered Institute of Bankers, England.
5. Joshi Vasant C. and Joshi Vinay V (1998), Managing Indian Banks: The Challenges Ahead, Response Books, New Delhi.

EQUIVALENCE OF THE PAPERS

Sr	Existing title of the Paper	Revised Title of the paper
1	Money and Financial System (Paper - I)	Money and Financial System (Paper - I)

Nature of question paper for semester III and IV (Paper No. I & II)

Attempt any five questions.

Total marks 50

Q1. Write short answers (any two out of three)	10
Q2. Broad question	10
Q3. Broad question	10
Q4. Broad question	10
Q5. Broad question	10
Q6. Broad question	10
Q7. Write short notes (any two out of three)	10

Shivaji University, Kolhapur

Syllabus of B.Com

(Semester-III & IV)

Syllabus to be Introduced from June 2019

Money and Financial System

CHOICE-BASED CREDIT SYSTEM

B.Com SEM IV

Money and Financial System (Paper No – 2)

Course Outcomes:

1. Students will be able to use e-banking services
2. Students will be able explain working of RBI in India
3. Students will be able to provide consultancy and guidance for investment in financial markets
4. Students will be able to explain the business practices of NBFCs and AIFI

Expected Skills Impartation (Through theory and Practical's)

1. Use of E-banking services
2. Able to provide Financial consultancy
3. Critical thinking about NBFCs and their effects

Marks : 50

Total Lectures of Teaching :

Credits : 4

60

Unit-1:	E-Banking Services 1.1 Meaning and features of E-Banking, Various Internet Banking Services 1.2 Credit and Debit Card : Features, importance & precautions 1.3 NEFT, RTGS, IMPS & Cheque Truncation System 1.4 Mobile Banking - Features, different Mobile Apps and Importance	17 Lectures
Unit-2:	Reserve Bank of India 2.1 Organizational Structure and Functions of RBI 2.2 Meaning and Objectives Monetary Policy 2.3 Instruments of Monetary Policy 2.4 Monetary Policy Committee; Issue of RBI's Autonomy & Section-7 of RBI Act 1934	12 Lectures
Unit-3:	Financial Markets 3.1 Structure and Importance of Financial System 3.2 Features and structure of Money Market in India, Role of RBI 3.3 Features and structure of Capital Market in India, Role of SEBI 3.4 Reforms in Indian Money Market and Capital Market	17 Lectures
Unit-4:	All India Financial Institutes and NBFCs 4.1 Administrative Structure, Functions and Role of NABARD and SIDBI 4.2 Administrative Structure, Functions and Role of NHB and EXIM Bank 4.3 Meaning, Features, Types and Growth of NBFCs 4.4 Mutual Fund - Meaning, Types and Importance	15 Lectures

Note: Visits to financial institutes and financial consultancy firms should be conducted

Suggested Additional Readings:

1. Bhole L.M. (2009), Financial Institutions and Market, Tata McGraw Hill, New Delhi
2. Bhasin Nitin(2010), Financial Institutions and Financial Markets in India :Functioning and Reforms. New Century Publications, New Delhi
3. Berg Braam van den (2015), Understanding Financial Markets & Instruments, Academy of Financial Market, <https://eagletraders.com/books/afm/afm4.php>
4. Cade, Eddie (1998) Managing Banking Risks, Woodhead Publishing Ltd., in association with The Chartered Institute of Bankers, England.
5. Gupta, L.C (1997), Stock Exchange Trading in India; Society for Capital Market Research and Development
6. Sethi Jyotsna and Bhatia Nishwan (2003), Elements of Banking and Insurance, Prentice Hall of

- India, New Delhi
7. National Stock Exchange (2015), Securities Market (Basic) Module, NCFM, National Stock Exchange of India Limited
 8. Joshi Vasant C. and Joshi Vinay V (1998), Managing Indian Banks: The Challenges Ahead, Response Books, New Delhi.

EQUIVALENCE OF THE PAPERS

Sr	Existing title of the Paper	Revised Title of the paper
1	Money and Financial System (Paper - II)	Money and Financial System (Paper - II)

SHIVAJI UNIVERSITY, KOLHAPUR
Syllabus B.COM.
SEMESTER - III
MACRO ECONOMICS – PAPER- I
(CHOICE BASED CREDIT SYSTEM – (CBCS)
Credits : 4
Introduced from June 2019

COURSE OUTCOMES:

Student will be able to explain...

- 1 The macro variables and components of macro economics
- 2 The relevance of national income concepts and its applications in economic policy making.
- 3 Changing value of money and its impacts on economy.
- 4 The output and employment generation process through investment and consumption.

UNIT -1	Introduction to Macro Economics 1.1 Meaning, Nature and Scope 1.2 Significance of Macro Economics 1.3 Limitations of Macro Economics 1.4 Macro Economic Variables	15
UNIT -2	National Income 2.1 Meaning and concepts- GDP, GNP, NNP, Personal and Disposable income, Per capita Income, National income at current and constant prices. 2.2 Methods of computing National Income- Product, Income and Expenditure methods 2.3 Difficulties in computing National Income 2.4 Applications of National Income Data	15
UNIT -3	Value of Money 3.1 Concept of Value of Money 3.2 Quantity Theory of Money-, Transaction Approach, Cash Balance Approach 3.3 Inflation-Causes of Inflation, Inflation and interest rates, Social cost of Inflation, Remedies to control of inflation. 3.4 Index Number – Meaning, Construction of Simple and Weighted Index Numbers.	15
UNIT -4	Output and Employment 4.1 J.B. Say's Law of Market 4.2 Keynesian Theory of Employment 4.3 Consumption Function - Concept and Types, Factors influencing consumption function 4.4 Investment Function- Marginal Efficiency of Capital, Investment Multiplier	15

References –

1. Agarwal H.S. (2013), Principles of Economics, Global Professional Publishing
2. Ahuja H.L.(2010), Macro Economics Theory and Policy, S. Chand and Company.
3. Branson William H. (1997), Macro Economics Theory and Policy, Harper Collins India Pvt.Ltd.
4. Crowther Geoffrey (1940), An Outline of Money, Thomas Nelson and sons Ltd. London
5. Duesenberry James, S. Business Cycles and national Income, George Allen and Union London
6. Derburg and McDougal (1976), Macro Economics, McGraw Hill Education, New York
7. Dewett K.K., (2006), Modern Economic Theory, S. Chand and Company.
8. Gupta G.S.(2008), Macro Economics: Theory and Applications, Tata McGraw Hill Education
9. Gupta S.B.(2010), Monetary Economics, S. Chand and Company.
10. Hanson J.L. An Outline of Monetary Theory, McDonalds and Evans Ltd. London
11. Haberler Gottfried (1968) Theory of International Trade, William Hodge and Company
12. Hanson Alvin H. (1949), Monetary Theory and Policy, McGraw Hill Publication
13. Hanson J.L.(1970), Monetary Theory and Practice, McDonalds and Evans Ltd. London
14. Hicks U.K.(1968), Public Finance, James Nisbet and Comp. London
15. Lindauer John (2012) Macro Economics, 4th Ed iUniverse Inc. Bloomington USA
16. Jhinghan M.L. Macro Economic Theory, Vinda Publication Pvt.Ltd. New Delhi
17. Lekhi R.K. Public, (2015) Finance, Kalayani Publishers New Delhi
18. Mithani D.M. (2012), Money Banking International Trade and Public Finance, Himalaya Publishing House
19. Musgrave Richard, (2004), Public Finance, McGraw Hill Publication
20. Shapiro Edward (2013), Macro Economic Analysis, Galgotia Publication
21. Samuelsson Paul A. Nordhaus W.D.(2010), Macro Economics, McGraw Hill Publication
22. Schumpeter J.A.(1939), Business Cycles, McGraw Hill Publication
23. Seth M.L. (2017), Macro Economics, Laxminarayan Agarwal Publication
24. Singh S.B. Macro Economics, Vishvbharti Publication New Delhi
25. Taygi B.P. Singh H.P.(2016), Public Finance, Jayprakash Nath Co.
26. Vaish M.C.(2009). Monetary Policy. Vikas Publishing House New Delhi

Equivalence of the paper

Title of Old Paper	Title of New Paper
Business Economics Paper III	Macro Economics Paper I

SHIVAJI UNIVERSITY, KOLHAPUR
Syllabus
B.COM.
SEMESTER - IV
MACRO ECONOMICS – PAPER- II
(CHOICE BASED CREDIT SYSTEM – (CBCS)
Credits : 4
Introduced from June 2019

COURSE OUTCOMES:

Student will be able to explain...

1. The trade cyclical phenomenon in the economy and they will be able to take practical decisions at their business level in future.
2. Public finance system of state and its impact on economy and citizens of the nation.
3. The trade and business practices through international trade theories and other relevant concepts.
4. The international monetary exchange system and determination of rate exchange.

UNIT -1	Trade Cycles 1.1 Meaning Features and Types 1.2 Phases of Trade Cycles 1.3 Theories of Trade Cycles – Hawtrey and Schumpeter 1.4 Control of Trade Cycles	15
UNIT -2	Public Finance 2.1 Meaning, Nature and Scope, The Principle of Maximum Social Advantage 2.2 Public Revenue- Meaning, Tax Revenue-Direct and Indirect Taxes - Merits and Demerits, Concept of Goods and Service Tax (GST), Non-Tax Revenue Sources 2.3 Public Expenditure- Causes of growth and effects 2.4 Public Debt – Forms and Effects, Deficit Financing- Objectives and limitations.	15
UNIT -3	International Trade 3.1 Concept of Trade, Internal and International Trade 3.2 Advantage and Disadvantage of International Trade, Ricardian Theory of International Trade, Terms of Trade – Meaning, Types and its influencing factors. 3.3 Balance of Payments – Causes of disequilibrium, Measures to correct disequilibrium. 3.4 Concepts of Free Trade and Protective Trade	15
UNIT 4	Rate of Exchange 4.1 Concept of Rate of Exchange 4.2 Types – Fixed, Flexible, Spot and Future rate of exchange 4.3 Purchasing Power Parity Theory	15

4..4 Modern Theory of rate of exchange	
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References –

1. Agarwal H.S. (2013), Principles of Economics, Global Professional Publishing
2. Ahuja H.L.(2010), Macro Economics Theory and Policy, S. Chand and Company.
3. Branson William H. (1997), Macro Economics Theory and Policy, harper Collins India Pvt.Ltd.
4. Crowther Geoffrey (1940), An Outline of Money, Thomas Nelson and sons Ltd. London
5. Duesenberry James, S. Business Cycles and national Income, Georg Allen and Union London
6. Derburg and McDougal (1976), Macro Economics, McGraw Hill Education, New York
7. Dewtt K.K., (2006), Modern Economic Theory, S. Chand and Company.
8. Gupta G.S. (2008), Macro Economics: Theory and Applications, tata McGraw Hill Education
9. Gupta S.B. (2010), Monetary Economics, S. Chand and Company.
10. Hanson J.L. An Outline of Monetary Theory, McDonalds and Evans Ltd. London
11. Haberler Gottfried (1968) Theory of International Trade, William Hodge and Company
12. Hanson Alvin H. (1949), Monetary Theory and Policy, McGraw Hill Publication
13. Hanson J.L. (1970), Monetary Theory and Practice, McDonalds and Evans Ltd. London
14. Hicks U.K. (1968), Public Finance, James Nisbet and Comp. London
15. Lindauer John (2012) Macro Economics, 4th Ed iUnivers Inc. Bloomington USA
16. Jingham M.L. Macro Economic Theory, Vinda Publication Pvt.Ltd. New Delhi
17. Lekhi R.K. Public, (2015) Finance, Kalayani Publishers New Delhi
18. Mithani D.M. (2012), Money Banking International Trade and Public Finance, Himalaya Publishing House
19. Musgrave Richard, (2004), Public Finance, McGraw Hill Publication
20. Shapiro Edward (2013), Macro Economic Analysis, Galgotia Publication
21. Samuelsson Paul A. Nordhaus W.D. (2010), Macro Economics, McGraw Hill Publication
22. Schumpeter J.A. (1939), Business Cycles, McGraw Hill Publication
23. Seth M.L. (2017), Macro Economics, Laximinarayan Agarwal Publication
24. Singh S.B. Macro Economics, Vishvbharti Publication New Delhi
25. Taygi B.P. Singh H.P. (2016), Public Finance, Jayprakash Nath Co.
26. Vaish M.C. (2009). Monetary Policy. Vikas Publishing House New Delhi

Equivalence of the papers

Title of Old Paper	Title of New Paper
Business Economics Paper IV	Macro Economics Paper II

Nature of Question Paper for paper III and IV**Total Marks: 50****Attempt any five questions out of seven**

- Q.1 Write short answers (Any two out of three) 10
- Q.2 Broad question 10

Q.3 Broad question	10
Q.4 Broad question	10
Q.5 Broad question	10
Q.6 Broad question	10
Q.7 Write short notes (Any two out of three)	10

B.COM. PART II
ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)
(CBCS)

ENGLISH FOR BUSINESS COMMUNICATION
(Compulsory English)
June 2019 Onwards

Course Objectives:

- To enable the students to develop communication skills in English, both oral and written.
- To equip the students with the language skills for use in their personal, academic and professional lives.
- To develop the students essential employability skills.
- To help the students to enter the job market with confidence and the ability to work effectively.
- To help the students to learn and practice both language and soft skills.
- To encourage the active involvement of students in learning process.
- To enable the students to cultivate a broad, human and cultured outlook.

CONTENTS

Semester III (Paper C)

Module I

- A) Oral Skills
- B) Phenomenal Woman – **Maya Angelou**

Module II

- A) Conversation Skills
- B) The Childless One – **Jai Nimbkar**
- C) Those Winter Sundays – **Robert Hayden**

Module III

- A) English for Competitive Examination – I
- B) Four Minutes that get you Hired
–**Connie Brown Glaser and Barbara Steinberg Smalley**

Module IV

- A) Stormy Arrival in South Africa – **Mohandas Karamchand Gandhi**
- B) The Road Not Taken – **Robert Frost**

Semester IV (Paper D)

Module V

- A) E-Communication
- B) Breathing Spaces – **Rana Nayar**

Module VI

- A) English for Competitive Examination – II
- B) My Financial Career – **Stephen Leacock**

Module VII

- A) English for Banking and Industries
- B) Senior Payroll – **William E. Barrett**

Module VIII

- A) The Verger – **Somerset Maugham**
- B) I Am the People, the Mob – **Carl Sandburg**
- C) One Day I Wrote Her Name – **Edmund Spenser**

Pattern of Question Paper

B.COM. PART II
ABILITY ENHANCEMENT COMPULSORY COURSE (AECC)
(CBCS)

ENGLISH FOR BUSINESS COMMUNICATION
(Compulsory English)

PATTERN OF QUESTION PAPER (June 2019 Onwards)

Semester III (Paper C)

Total Marks 50

Que. No.	Sub. Q.	Type of Question	Based on	Marks
Q.1.	A.	Four multiple choice questions with four alternatives to be set.	Prose and poetry	04
	B.	Answer in one word/Phrase/Sentence each.	Prose and poetry	04
Q.2.	A.	Answer the following questions in 3 - 4 sentences each (3 out of 5)	3 on Prose and 2 on Poetry	06
	B.	Write short notes on the following in about 7 - 8 sentences each (2 out of 3)	1 on Prose and 2 on Poetry	06
	C.	Two different Vocabulary exercises to be set for 2 marks each	Prose and poetry	04
Q.3.	A.	Question to be set on ORAL SKILLS	Module I A	05
	B.	Question to be set on ORAL SKILLS	Module I A	04
Q.4.	A.	Question to be set on CONVERSATION SKILL	Module II A	04
	B.	Question to be set on CONVERSATION SKILL	Module II A	04
Q.5	A.	Question to be set on ENGLISH FOR COMPETITIVE EXAMINATION – I	Module III A	05
	B.	Question to be set on ENGLISH FOR COMPETITIVE EXAMINATION – I	Module III A	04

Semester IV (Paper – D)**Total Marks 50**

Que. No.	Sub. Q.	Type of Question	Based on	Marks
Q.1.	A.	Four multiple choice questions with four alternatives to be set.	Prose and poetry	04
	B.	Answer in one word/Phrase/Sentence each.	Prose and poetry	04
Q.2.	A.	Answer the following questions in 3 - 4 sentences each (3 out of 5)	3 on Prose and 2 on Poetry	06
	B.	Write short notes on the following in about 7 - 8 sentences each (2 out of 3)	1 on Prose and 2 on Poetry	06
	C.	Two different Vocabulary exercises to be set for 2 marks each	Prose and poetry	04
Q.3.	A.	Question to be set on E-COMMUNICATION	Module V A	05
	B.	Question to be set on E-COMMUNICATION	Module V A	04
Q.4.	A.	Question to be set on ENGLISH FOR COMPETITIVE EXAMINATION – II	Module VI A	04
	B.	Question to be set on ENGLISH FOR COMPETITIVE EXAMINATION – II	Module VI A	04
Q.5.	A.	Question to be set on ENGLISH FOR BANKING AND INDUSTRIES	Module VII A	05
	B.	Question to be set on ENGLISH FOR BANKING AND INDUSTRIES	Module VII A	04

Shivaji University, Kolhapur
Syllabus of B. Com. (SEM – III)
(To be introduced from June, 2019)

BUSINESS STATISTICS (PAPER-I)

Credits-4

Course Outcomes

After completion of this course, the student will be able to

1. Explain the scope of statistics in business, perform classification and tabulation, and represent the data by means of simple diagrams and graphs.
2. Explain and apply sampling techniques in real life.
3. Summarize data by means of measures of central tendency and dispersion.
4. Explain the merits and demerits of various measures of central tendency and dispersion.
5. Perform analysis of bivariate data using simple correlation and simple linear regression.

Unit 1: Introduction to Statistics

(15)

- 1.1 Meaning of Statistics, Scope of Statistics in business.
- 1.2 Primary and secondary data, Discrete and continuous variables, Classification and its basis, Frequency and frequency distribution, Tabulation.
- 1.3 Diagrammatic representation: pie-chart, simple bar diagram, Graphical representation: histogram, ogive curves, Numerical problems.
- 1.4 Sampling: Definitions of population, sample, sampling, and census, Principle steps in sample survey, Advantages of sampling over census, Methods of sampling: simple random sampling (with and without replacement), stratified random sampling.

Unit 2: Measures of Central Tendency

(15)

- 2.1 Concept of central tendency, Requirements of a good average.
- 2.2 Arithmetic mean (A. M.): Definition, Properties of A. M. (without proof), Combined A. M., Merits and demerits, Numerical problems.
- 2.3 Median and quartiles: Definitions, Merits and demerits of median, Numerical problems.
- 2.4 Mode: Definition, Merits and demerits, Empirical relation among mean, median, and mode, Numerical problems.

Unit 3: Measures of Dispersion

(15)

- 3.1 Concept of dispersion, Requirements of a good measure of dispersion, Absolute and relative measures of dispersion.
- 3.2 Range, Coefficient of range, Merits and demerits of range, Numerical problems.
- 3.3 Quartile deviation (Q. D.), Coefficient of Q. D., Merits and demerits of Q. D., Numerical problems.
- 3.4 Standard deviation (S. D.), Coefficient of S. D., Coefficient of variation, Variance, Merits and demerits of S. D., Numerical problems.

Unit-4: Analysis of Bivariate Data: Correlation and Regression**(15)**

- 4.1 Concept of correlation, Types of correlation.
- 4.2 Methods of studying correlation: Scatter plot, Karl Pearson's correlation coefficient (r), Interpretation of r (with special cases $r = -1$, 0 , and 1), Spearman's Rank correlation coefficient (R), Numerical problems on computation of r and R (with and without ties) for ungrouped data.
- 4.3 Concept of regression.
- 4.4 Lines of regression, regression coefficients, relation between correlation coefficients and regression coefficient, Numerical problems on ungrouped data.

Reference Books:

- 1. Gupta S. P. (2018) *Statistical methods*, Sultan Chand and Sons.
- 2. Gupta C. B. and Gupta Vijay (2004) *An Introduction to Statistical Methods*, Vikas Publishing House Pvt Limited.
- 3. Desai S. S.(2017) *Business Statistics*, Jay-Gauri.
- 4. Kumbhojkar G. V. (2017) *Business Statistics*, Phadke Prakashan.
- 5. Gupta S. C. (2019) *Fundamentals of Statistics*, Himalaya Publishing House Pvt. Ltd.

Shivaji University, Kolhapur
Syllabus of B. Com. (SEM – IV)
(To be introduced from June, 2019)

BUSINESS STATISTICS (PAPER-II)

Credits-4

Course Outcomes

After completion of this course, the student will be able to

1. Compute unconditional and conditional probabilities and apply laws of probabilities.
2. Identify the applications of Binomial and normal distributions.
3. Measure trend and seasonal variations in time series data.
4. Compute and interpret simple and weighted index numbers.
5. Construct and apply variable and attribute control charts.

Unit 1: Probability and Probability Distributions (15)

- 1.1 Definitions of random experiment, sample space, event, equally likely events, mutually exclusive events, independent events, Classical definition of probability.
- 1.2 Definition of conditional probability, Addition and multiplication laws of probability (without proof), Numerical problems (without use of permutation and combination).
- 1.3 Binomial distribution: Probability mass function, Mean and variance (without proof), Simple numerical problems to find probability and parameters.
- 1.4 Normal distribution: Probability density function, Mean and variance (without proof), Properties of normal curve, Standard normal distribution, numerical problems to find probabilities for given area under standard normal curve.

Unit 2: Time Series Analysis (15)

- 2.1 Definition and uses of time series.
- 2.2 Components of time series.
- 2.3 Methods of measuring trend: method of semi-averages, method of moving averages, and method of least squares, Numerical problems.
- 2.4 Measurement of seasonal variations using simple average method, Numerical problems.

Unit 3: Index Numbers (15)

- 3.1 Need, meaning, and uses of index numbers, Applications of index numbers in share market, Price, quantity, and value index numbers.
- 3.2 Simple index numbers by simple aggregate method and simple average of relatives method (using A. M.), Numerical problems.
- 3.3 Weighted index numbers by Laspeyre's, Paasche's, and Fisher's formulae, Numerical problems.
- 3.4 Problems involved in construction of index numbers.

Unit 4: Statistical Quality Control**(15)**

- 4.1 Concept of statistical quality control (SQC), Advantages of SQC, Types of variability: chance cause variability and assignable cause variability.
- 4.2 Shewhart control chart and its construction.
- 4.3 Variable control charts: mean (\bar{X}) and range (R) charts, Numerical problems.
- 4.4 Attributes control charts: control chart for number of defectives (np -chart) for fixed sample size and control chart for number of defects per unit (c -chart), Numerical problems.

Reference Books:

- 1. Gupta S. P. (2018) *Statistical methods*, Sultan Chand and Sons.
- 2. Gupta C. B. and Gupta Vijay (2004) *An Introduction to Statistical Methods*, Vikas Publishing House Pvt Limited.
- 3. Desai S. S.(2017) *Business Statistics*, Jay-Gauri.
- 4. Kumbhojkar G. V. (2017) *Business Statistics*, Phadke Prakashan.
- 5. Gupta S. C. (2019) *Fundamentals of Statistics*, Himalaya Publishing House Pvt. Ltd.

Shivaji University, Kolhapur
B.Com.(CBCS Pattern)
Part – II (Semester –III) (Draft Syllabus)
Tax Procedure & Practice – Paper VI
Title of Paper – INCOME TAX
Generic Elective Course
Introduced From June 2019-20

Credit-4

Objectives-

1. To understand the process and procedure of the Income Tax Act, 1961
2. To impart theoretical knowledge of Income Tax
3. To acquaint students with post Assessment procedure and TDS provisions and procedure.

Unit – I	Income Tax Payment and fine of interest – a) Advance Tax b) Interest payable under section 234 ABC	10 Hours
Unit – II	Assessment Procedure – Inquiring before Assessment – Assessment U/S 143(1), Regular Assessment of U/S 143(2), Best Judgement Assessment, Income escaped Assessment, issue of notice where income has escaped assessment, Time Limit for notice, Time limit completion of Assessment, Re-assessment	20 Hours
Unit – III	Post Assessment Procedure – a) Refund – who can claim refund, form no 16 for refund, Time limit for claiming refund, refund on appeal interest refund b) Rectification of mistake c) Appeals and revisions – when an assessee can file appeal appellate authorities, procedure for filing appeal, filling appeal, Revision by Income Tax commissioner d) Penalties and Procedure – Procedure for imposing penalties, Waiver of penalty nature of default and penalties impossible.	20 Hours
Unit – IV	TDS provisions and Procedure – including TDS Tax collection of source provision and procedures.	10 Hours

Shivaji University, Kolhapur
B.Com.(CBCS Pattern)
Part – II (Semester –IV) (Draft Syllabus)
Tax Procedure & Practice – Paper VIII
Title of Paper – INCOME TAX
Generic Elective Course
Introduced From June 2019-20

Credit-4

Objectives-

1. To impart theoretical knowledge of TDS, TCS, Penalties and prosecutions
2. To develop the skills of solving practical problems of TDS and TCS
3. To acquaint students with recent terms and conditions in Income Tax

Unit – I	TDS – Scheme of tax deduction at source, deduction of tax from salaries, interest other than interest on securities, winnings from horse races, from payments to contractors or sub contractors, from insurance commission, from commission or brokerage, from income by way of rent, on purchase of immovable property and on professional fees.	20 Hours
Unit – II	TCS – Scheme of tax collection at source, applicability, persons liable to collect TCS, rates of TCS and relevant provisions.	10Hours
Unit – III	PENALTIES & PROSECUTIONS – Penalties for default in brief, penalty for concealment / under-reporting of Income, procedure for imposition of penalty and time-limit for completion of penalty proceedings.	20 Hours
Unit – IV	PRACTICAL PROBLEMS ON TDS & TCS – Problems on calculation of TDS & TCS	10 Hours

B.Com.II
Semester III and IV (CBCS Pattern)
Tax Procedure and Practice - Income Tax
Nature of Question Paper

Total Marks : 50

Instructions :

1. All questions carry equal marks
2. Attempt any five questions out of seven

Q.1	Theory - Short Notes (Any two out of four)	10 Marks
Q.2	Theory Broad Question	10 Marks
Q.3	Theory Broad Question	10 Marks
Q.3	Problems	
Q.5	Problems	10 Marks
Q.6	Problems	10 Marks
Q.7	Problems	10 Marks

Equivalence

Sr. No.	Old Name	New Name
1	Tax Procedure and Practice Income Tax Paper VI (Vocational)	Tax Procedure and Practice Income Tax Paper VI (CBCS)
2	Tax Procedure and Practice Income Tax Paper VIII (Vocational)	Tax Procedure and Practice Income Tax Paper VIII (CBCS)

Reference Books :

1. Students guide to Income Tax – Taxman
2. Direct Tax ready reckoner – Vinod Sighaniya
3. Income Tax – P.M. Herekar

Shivaji University, Kolhapur
B.Com.(CBCS Pattern)
Part – II (Semester –III) (Draft Syllabus)
Tax Procedure & Practice – Paper V
Title of Paper – GST (SGST, IGST & CGST)
Generic Elective Course
Introduced From June 2019-20

Credit-4

Objectives-

1. To impart theoretical knowledge of GST
2. To help students solve practical problems in GST
3. To acquaint students with the latest concepts and terms in GST.

Unit – I	Schedules under the Act(Schedule I.II and III under GST Act 2017) Levy & Collection of Tax (Scope of supply, Composite & mix supply, levy & collection)	10 Hours
Unit – II	Time & value of supply (Time of supply of goods, Time of supply of service, Value of Taxable supply schedules)	10 Hours
Unit – III	Determination of nature of Supply (Inter state Supply, Intra-state supply, Supplies in territorial water. Sec 7,8,9 of IGST Act) Sec. 10 & 11 of IGST Act Sec-10 Place of Supply of Goods other than supply of goods imported into, or exported from India. Sec. 11 – Place of Supply of Goods imported into or exported from India.	10 Hours
Unit – IV	Basic Problems – Problems to calculate SGST & CGST & Time & Value of supply.	30 Hours

Shivaji University, Kolhapur
B.Com.(CBCS Pattern)
Part – II (Semester –IV) (Draft Syllabus)
Tax Procedure & Practice – Paper VII
Title of Paper – GST
Generic Elective Course
Introduced From June 2019-20

Credit-4

Objectives-

1. To make aware the students regarding new amendments made in the Indirect taxation system of India i.e. GST
2. To give practice approach and implementation of GST provisions
3. To make aware about the key aspects under GST like place of supply of goods and services
4. To enhance the knowledge of students with the practical solutions and case studies under GST.

Unit – I	Composition levy (Conditions, applicability, Composition rate of tax etc. Reverse Charge Mechanism (RCM) – Applicability, Conditions	10 Hours
Unit – II	Input Tax Credit (Eligibility & conditions for taking Input Tax credit apportionment of credit & blocked credit)	20 Hours
Unit – III	Sec 12 - Place of Supply of Goods or services or both. (Place of supply of services, where location of supplies & recipient in India. Sec 13 - Place of Supply of services where location of supplier where location of supplier or location of recipient is outside India	20 Hours
Unit – IV	Basic Problems – Time of supply, value of supply, place of supply & ITC	10Hours

B.Com.II
Semester III and IV (CBCS Pattern)
Tax Procedure and Practice - GST
Nature of Question Paper

Total Marks : 50

Instructions :

1. All questions carry equal marks
2. Attempt any five questions out of seven

Q.1	Theory - Short Notes (Any two out of four)	10 Marks
Q.2	Theory Broad Question	10 Marks
Q.3	Theory Broad Question	10 Marks
Q.3	Problems	
Q.5	Problems	10 Marks
Q.6	Problems	10 Marks
Q.7	Problems	10 Marks

Equivalence

Sr. No.	Old Name	New Name
1	Tax Procedure and Practice GST (SGST, IGST & CGST) Paper V(Vocational)	Tax Procedure and Practice GST Paper V (CBCS)
2	Tax Procedure and Practice GST Paper VII (Vocational)	Tax Procedure and Practice Income Tax Paper VII (CBCS)

Reference Books :

1. GST made simple - Taxman
2. A birds eye view - Jain and Jha
3. Basics of GST - Taxman
4. GST guide for students - CA Vivek Agarwal

SHIVAJI UNIVERSITY, KOLHAPUR.



NAAC 'A' Grade

Faculty of Commerce and Management

Syllabus For

B. Com. Part – III (Sem V & VI) (CBCS)

(To be implemented from June 2020 onwards)

(Subject to the modifications that will be made from time to time)

Shivaji University, Kolhapur
B.Com (CBCS Pattern) Part – III (Semester-V)
Modern Management Practice- Paper-I

Core Course

Introduced From June- 2020

Credit - 4

Objectives:

1. To impart knowledge of modern management
2. To understand concepts of CRM
3. To know the concepts of emotional and social intelligence
4. To understand the concept of lean and talent management

Unit-I	Contribution to Modern Management Practice <ol style="list-style-type: none"> a. Concept of Modern Management b. Contribution of Vijay Govindarajan: Three Box Solution and Reverse Innovation c. Contribution of C.K. Prahalad : The Fortune at the Bottom of the Pyramid. d. Michael Porter : competitive advantage. 	15 periods
Unit-II	Emotional and Social Intelligence in Management <ol style="list-style-type: none"> a. Emotional Intelligence: Concept, Components, Importance of emotional intelligence in leadership, Advantages and Disadvantages of emotional intelligence, emotional intelligence skills b. Social intelligence: Concept, Importance, Advantages and Disadvantages of social intelligence, Models of emotional and social intelligence: 	15 periods
Unit-III	Customer Relationship Management (CRM) and Supply Chain Management (SCM) <ol style="list-style-type: none"> a. Customer Relationship Management (CRM) : Concept, Importance, Elements, Process, e-CRM b. Supply Chain Management (SCM): Concept, Importance, Components, Process, Benefits of SCM 	15 periods
Unit-IV	Lean Management and Talent Management <ol style="list-style-type: none"> a. Lean Management: Concept, Principles, Benefits and disadvantages, tools of lean Management, lean management best practices b. Talent Management: Concept, Importance, Process, Components, benefits 	15 periods

Shivaji University, Kolhapur

B.Com (CBCS Pattern) Part – III (Semester-VI)

Modern Management Practice- Paper-II

Core Course

Introduced From June- 2020

Credit - 4

Objectives:

1. To impart knowledge of total quality management
2. To understand the Japanese and Chinese Management Practices
3. To know the concept of Event and Performance Management
4. To understand the concept of time and stress management

Unit-I	Total Quality Management (TQM) and Quality Standards a. Total Quality Management (TQM) : Concept, Principles, Elements of TQM, Benefits and Disadvantages of TQM b. Quality Standards: Benchmarking(concept and types) Six Sigma,(concept and levels) ISO: 9000, (Importance and elements)	15 periods
Unit-II	Japanese and Chinese Management Practice a. Japanese Management: Concept, Characteristics and 8 Key Japanese Quality Management techniques b. Chinese management: Concept, Characteristics, Chinese Leadership Style, Difference between Chinese and Western Management	15 periods
Unit-III	Event and Performance Management a. Event Management: Concept, Importance, Procedure, Types of events, benefits of event Management b. Performance Management : Concept, Evolution, Need, Process of Performance Management	15 periods
Unit-IV	Time and Stress Management a. Time Management: Concept, Importance, Techniques b. Stress Management: Meaning of Stress, Causes, Effects, Techniques of stress management	15 periods

B.Com III (Semester- V) Under CBCS**Paper I : CC-C3 : Business Regulatory Framework**

Credit –I	Law of Contract- 1872	Hours
	Definition of Business Law and its sources Definition of contract, Essential element and Kinds of Contract Offer and Acceptance, Capacity of Parties, Consideration, Free Consent and Legality of objectives, Void Contracts Discharge of Contract, Remedies for breach of contract	15 Hrs
Credit-II	Labour Laws	15 Hrs
	A) Employees Provident Fund Act- 1952- Meaning and its applicability criteria, Rates of Contribution , Periodicity of Payment and Return, Mandatory Records, Consequences of Non compliances	5 Hrs
	B) Employees State Insurance Act-1948- Meaning and its applicability criteria, Rates of Contribution , Periodicity of Payment and Return, Mandatory Records, Consequences of Non compliances	5 Hrs
	C) Payment of Gratuity (Amendment)Act-2018- Meaning and its applicability criteria, Rates of Contribution , Payment calculation, Mandatory Records, Consequences of Non compliances	5 Hrs
Credit-III	Sale of Goods Act,1932 and Goods and Services Tax(GST)	15 Hrs
	A) Sale of Goods Act- Contract of Sale of goods concept and essentials, Sale and Agreement to sell, Conditions and Warranties, Performance of Contract of Sale	10 Hrs
	B) Goods and Services Tax- Basic framework of GST, Applicability criteria, General understandings of legal provisions regarding invoices, GST Returns , Consequences of Non compliances	5 Hrs
Credit- IV	Indian Partnership Act-1932 and Limited Liability Partnership Act-2008	15 Hrs
	A) Indian Partnership Act-1932- Partnership Deed meaning and general terms and conditions, Role and Responsibilities of Partners.	5 Hrs
	B) Limited Liability Partnership Act- 2008- Nature and Silent features of LLP, Incorporation of LLP, Limitations of liability of LLP and Partners, Difference between Partnership and LLP.	10 Hrs

Reference-

- 1) Business Law- Kavita Krishnamurthi
- 2) Essentials of Business and Industrial Laws- B.S. Moshal
- 3) Business Law- M.C. Kuchhal
- 4) Elements of Mercantile Law- N.D. Kapoor
- 5) Mercantile Law- Arun Kumar
- 6) Mercantile Law- S.S.Gulshan
- 7) The Principles of Mercantile Law- Avtarsingh
- 8) Commercial and Industrial Law-A.K. Sen and J.K. Mitra
- 9) Textbook on Indian Partnership Act with Limited Liability Partnership Act- by Madhusudan Saharay
- 10) GST – Law and Procedure by Anananday Mishra – Taxman

Paper II : CC-C4 : Business Regulatory Framework

Credit- I	Company Act- 2013 Meaning, Features and Types of Company, Process of Incorporation of Company, Role, Responsibilities and Powers of Directors, Auditors and Company Secretary. Rights of Share holders, Company meetings and Resolutions Winding up of Company	15 Hrs
Credit-II	Security Exchange Board of India Act-1992, Consumer Protection Act-1986 and Competition Act-2002	15 Hrs
	A) Security Exchange Board of India Act-1992(SEBI)- Role , Powers and Functions of SEBI, Listing and Trading of Securities	5 Hrs
	B) Consumer Protection Act-1986- Definitions- Consumer, Complaint, Complainant, Unfair Trade Practices, Restrictive Trade Practices, Rights of Consumer, Consumer Redressal Agencies- Composition and Jurisdiction.	5 Hrs
	C) Competition Act-2002- Objectives, Powers and duties of Competition Commission	5 Hrs
Credit-III	Business Transactions and Cyber Laws	15 Hrs
	a) E-commerce: Nature, formation, legality and recognition b) Intellectual Property Rights: Patent, Copy Right, Trademark and Industrial Design (only concepts) c) Digital Signature: Need, formation, functions, Digital Significance Certificate and Revocation of Digital Signature d) Cyber crimes and offences e) Penalties for cyber crimes	
Credit-IV	Negotiable Instrument (Amendment) Act-2015	15 Hrs
	Meaning and Features of Negotiable instrument, Kinds of Negotiable instrument, Promissory Note, Bill of Exchange and Cheque, Crossing of Cheque and Its kinds- Dishonour of Negotiable instrument and its consequences and Remedies thereon	

Reference Books:

- 1) Business Law- M.C. Kuchhal
 - 2) Business Law- KavitaKrishanmurthi
 - 3) Cyber Laws- Dr. Farooq Ahmed
 - 4) Elements of Company Law- V.S. Datey
 - 5) The Consumer Protection Act- ArshadSubzawari
 - 6) The Consumer Protection Act- C.M. Dhopare
 - 7) Cyber Laws- Krishna Kumar
 - 8) Consumer Protection Act- Niraj Kumar
 - 9) SEBI Act- Agarwal and Baby- Taxman
 - 10) Competition Act- Dr.Rattan- Bharat Publication
- Concerned Bare Act should be referred

Nature of Question Paper

Total Marks-40

Instructions – 1) All questions carry equal marks.

2) Attempt any FIVE Questions out of seven

Q.1	Short Notes (Any Two)	4 Marks Each
Q.2	Long Answers	8 Marks
Q.3	Long Answers	8 Marks
Q.4	Long Answers	8 Marks
Q.5	Long Answers	8 Marks
Q.6	Long Answers	8 Marks
Q.7	Short Answers (Any Two)	4 Marks Each

B.Com. Part-III; SEM-V - Under CBCS
Paper-I : CC-C5 : Cooperative Development

Course Outcomes:

1. To study the meaning and principles of Co-operation.
2. To study the agricultural and Non-agricultural Credit Co-operative institutions.
3. To study the Co-operative credit system
4. To Study the important cooperative organizations

Expected Skills Impartation

1. Ability to explain cooperatives principles
2. Ability to applications of cooperative principles
3. Interpretation and comparison of different cooperative organizations

Marks : 40

Total Lectures of Teaching : 60

Credits : 4

Unit-1:	Introduction to Co-operative movement in India <ol style="list-style-type: none"> 1.1. Meaning, definition and features of Co-operation. 1.2. Principles of Co-operation - ICA and Manchester Principles 1.3. Role of Co-operation in economic development. 1.4. Review of Committees on Cooperative Development since 1991 (Vaidhyanathan Committee, Shivajirao Patil Committee and Kuraian and Alagh Committee) 	15 Periods
Unit-2:	Agricultural Co-operatives in India <ol style="list-style-type: none"> 2.1. Co-operative Marketing- Types, functions, problems and remedies 2.2. NAFED- Objectives, Management, Functions and Progress 2.3. Co-operative Farming - Types, problems and remedies 2.4. Role of Dairy Cooperatives - National Dairy Development Board. 	15 Periods
Unit-3:	Co-operative Banking & Credit Societies in India <ol style="list-style-type: none"> 3.1. Review of Co-operative credit movement - Three Tier and Two Tier Structure 3.2. Primary Agricultural Cooperative Societies -Functions, Problems and Remedies 3.3. DCC Banks - Administrative Structure, Progress, Problems and Remedies 3.4. State Cooperative Banks - Administrative Structure, Progress, Problems and Remedies 	15 Periods
Unit-4:	Important Cooperative Organizations in India <ol style="list-style-type: none"> 4.1. Urban Cooperative Banks - Types, Management, Progress and Problems 4.2. Non-Agriculture Credit Cooperatives - Functions and Problems 4.3. Consumer Cooperatives - Types, Role and Problems 4.4. Sugar Co-operatives - Role, Progress, problems and remedies 	15 Periods

References :

1. Dwivedi Ramesh Chandra, (2005), 'Hundred Years of Cooperative Movement in India'-Centre for Promotion of Cooperativism
2. Garg M. C. And Joshi N. N., (2009), 'Cooperative Credit And Banking –Strategies For Development', Deep And Deep Publication, New Dehli-110027
3. Hajela T.N., (1994) Cooperation: Principles, Problems and Practice, Konark Publishers, New Delhi.
4. Krishnaswamy O.R. and Kulandhiswamy V., (2000) Cooperation: Concept and Theory, Arudra Academy,
5. Kulkarni P. R. (2007) Laws of Co-operative Banking', Macmillan Publisher India Ltd. pp. 24-25 (2007)
6. Maharashtra Rajya Sahakari Dudh Mahasangh Maryadit <http://www.mahanand.in/>
7. NAFED <http://www.nafed-india.com>
8. Nakkiran S (2006) Cooperative Management : Principles and Techniques, Deep and Deep, New Delhi, 2006
9. National Dairy Development Board- <https://www.nddb.coop/>
10. Review of Co-operative Movement in India's Agricultural Credit Department, RBI. pp. 59-60, (1955)
11. Strickland C.F., (2010) 'An Introduction To Cooperation In India' Humphery Milford Oxford University Press.
12. The Maharashtra Co-operative Quarterly, The Maharashtra Rajya Shahakar Sanghah

B.Com. Part-III; SEM-VI - Under CBCS
Paper-II : CC-C6 : Cooperative Development

Course Outcomes:

1. To study the cooperative legislations and fund management
2. To understand the institutional arrangement for cooperative education and training
3. To understand the nature, registration, legislation and audit of housing cooperatives
4. To understand the cooperative audit system and provisions

Expected Skills Impartation

1. Legal understanding and interpretation skills
2. Ability to explain legal and technical provisions about cooperatives

Marks : 40		Total Lectures of Teaching : 60	Credits : 4
Unit-1:	Cooperative Laws and Legislation In India 1.1. Important Provisions under Maharashtra Co-operative Societies Act, 1960 1.2. Salient Features of Multi-State Co-operative Societies Act 2002 1.3. Liquidation Process- Appointment, Rights and Duties of Liquidator 1.4. Legal Provisions regarding Assets and Fund Management of Cooperatives - (Classification of Funds, Profit, Reserve Fund, Dividend, Expenses on social Activities, Investment of Funds etc)	15 Periods	
Unit-2:	Cooperative Education and Training In India 2.1. Need and Importance of Cooperative Education and Training 2.2. National Council for Cooperative Training- Organizational Structure & Functions 2.3. VAMNICOM -Objectives, Centers, Training Programmes 2.4. Career Opportunities in Cooperative Sector - GDC&A Certification	15 Periods	
Unit-3:	Cooperative Housing Societies In India 3.1. Meaning, Types and Registration Process of Housing Cooperatives 3.2. Maharashtra Co-operative Housing Society Model Bye Laws 3.3. Importance and Problems of Housing Societies 3.4. Audit of Co-operative Housing Societies- Nature and Elements	15 Periods	
Unit-4:	Cooperative Registrar & Audit In India 4.1. Powers and responsibilities of registrar 4.2. Cooperative Audit - Concept, Scope, Types of Audits 4.3. Internal Audit-Nature- Duties of Internal Auditor 4.4. Responsibilities and powers of cooperative auditor	15 Periods	

References :

1. Hajela T.N., (1994) Cooperation: Principles, Problems and Practice, Konark Publishers, New Delhi.
2. Indian Institute of Banking And Finance, (First Pub. 2007), 'Law of Cooperative Banking', Macmillan India Ltd. New Delhi
3. Kulkarni P. R. (2007) Laws of Co-operative Banking', Macmillan Publisher India Ltd. pp. 24-25 (2007)
4. Maharashtra Rajya Sahakari Dudh Mahasangh Maryadit <http://www.mahanand.in/>
5. Review of Co-operative Movement in India's Agricultural Credit Department, RBI. pp. 59-60, (1955)
6. Maharashtra Co-operative Societies Act, 1960
7. Maharashtra Co-operative Societies Act, 1960 by G. M.Divekar (Vol-I and II)
8. National Cooperative Development Corporation (NCDC) - <http://www.ncdc.in>
9. National Cooperative Housing Federation of India- <https://www.nchfindia.net/>
10. National Federation of State Cooperative Banks Ltd -http://nafscob.org/about_f.htm
11. National Cooperative Consumers' Federation Of India Limited- <http://nccf-india.com/>
12. National Council for Cooperative Training- <http://ncct.ac.in>
13. Dhananjayrao Gadgil Institute of Cooperative Management -<http://www.dgicmnagpur.com>

EQUIVALENCE OF THE PAPERS / COURSES

Sr	Existing title of the Paper	Revised Title of the paper
1	Co-operative Development Paper – I	Co-operative Development Paper – I
2	Co-operative Development Paper – II	Co-operative Development Paper – II

Nature of question paper for B.Com -III Co-operative Development

Semester V & VI (Paper No. I to II)

Attempt any five questions.

Total marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com Part III Semester – V (CBCS)

Paper I : CC-C7 : Business Environment

(Indian Economic Environment)

(Compulsory Paper)

Credits : 4

COURSE OUTCOMES:

- 1 Student should able to understand the significance and position of Indian economy at the world level.
- 2 Students should study the scenario of agricultural and industrial sectors.
- 3 Student should aware regarding Indian economy is facing some of the fundamental economic problems. They should able to make plans and solutions to these being as a citizen.
- 4 Student should understand the correlations between economical and social problems.

Unit No.	Unit Name	Periods
1	Business Environment 1.1 Concept 1.2 Components 1.3 Importance 1.4 Business environment and sustainable development	15
2	Agricultural Development 2.1 Present status of Indian Agriculture and Agricultural crisis 2.2 Agricultural Marketing-Problems, Agricultural price policy 2.3 Food security in India 2.4 National Commission on farmers- Agricultural Renewal Action Plan	15
3	Industrial Development 3.1 Industrial policy -1991 3.2 Concepts of Micro, Small and Medium Enterprises (MSMEs) 3.3 Progress of industrial sector in globalization era 3.4 Trade union movement – Problems and measures.	15
4	Problems of Indian Economy 4.1 Features of Indian population 4.2 Unemployment and poverty – causes and remedies 4.3 Inequality of Income and wealth, Black Money - Causes and remedies 4.4 Problems of rural and urban economy	15

References –

1. Mead R. (2004) International Management: Cross Cultural Dimensions, 3rd ed. New York Wiley
2. Vyuptakesh Sharan, (2004) International Business: Concept, Environment and Strategy, Pearson education, Singapore
3. Yarbrough B V (2005) The World Economy: Trade and Finance, 7th Ed Thomas south western USA
4. Manab Adhikari, Global (2006) Business Management(An International economic environment), Macmillan India Ltd
5. Hill C.W. L. and Jain A. K. (2007) International Business Competing in Global market Place, McGraw Hill New Delhi
6. Graham John L, Salwan Prashant, Cateora Philip R, (2008) International Marketing 13th Ed. Tata McGraw- Hill,
7. Jeevnandam C. International Business S.Chand New Delhi 2008
8. Paul Justein International Business, 5th Ed (2011) Prentice Hall of India, Pvt Ltd new Delhi
9. Keegan Warren J. and Green Mark C. Global Marketing, 4th Ed. (2009) Prentice Hall India, Pvt Ltd
10. Bhalla V. K. and Ramu S.S. (2009) International Business Environment, Anmol Prakashan New Delhi
11. Varshney R.L. and Bhattacharya B, (2012) International Marketing Management -An Indian Perspective, 24th Ed S.Chand New Delhi.

12. Dutt and Sundaram K P M, Indian Economy S. Chand Delhi

13.Dutt Ruddar Economic Reforms in India –A Critique, S Chand , New Delhi.

14.Mishara S K and PuriV K - Indian Economy, Himalaya Publishing House

15. Namboodripad E M S, Indian Planning and Crises, National book Center New Delhi.

16.Sundaram and Black The International Business Environment Prentices New Delhi

Equivalence of the paper

Existing Title of the Paper	Revised Title of the Paper
Business Environment Paper I	Business Environment Paper I

B.Com Part III Semester - VI– (CBCS)
Paper II : CC-C8 : Business Environment
 (Indian Economic Environment)
 (Compulsory Paper)
 Credits : 4

COURSE OUTCOMES:

1. Students will understand the Indian and global economic environment.
2. Students will equip with proper knowledge of Indian economic planning.
3. Students will enable with the knowledge of the plans and strategies toward foreign capital and multinational corporations.
4. Students will get acquainted with the functions, mechanism and performance of international financial, trade and regional cooperation institutions.

Unit No.	Unit Name	Periods
1	Liberalization, Privatization and Globalization 1.1 Concepts 1.2 Implementation and impact on Indian Economy. 1.3 Composition and direction of foreign trade in the Globalization era 1.4 Balance of payments crisis	15
2	Economic Planning and Service Sector 2.1 Economic planning – Broad objectives 2.2 NITI Aayog – Structure and functions 2.3 Planning process through NITI Aayog 2.4 Service Sector – Importance and progress of service sector in Indian economy.	15
3	Foreign Capital and Multinational Corporations 3.1 Need of foreign capital in India, 3.2 Policy of Government of India. 3.3 Multinational corporations- Definition, merits and demerits. 3.4 Exchange rates and Indian Rupee	15
4	International Institutions (Objectives and performance) 4.1 IMF 4.2 IBRD 4.3 WTO 3.3 SAARC	15

References

1. Mead R. (2004) International Management: Cross Cultural Dimensions, 3rd ed. New York Wily
2. Vyuptakesh Sharan, (2004) International Business: Concept, Environment and Strategy, Pearson education, Singapore
3. Yabraugh B V (2005) The World Economy: Trade and Finance, 7th Ed Thomas south western USA
4. Manab Adhikari, Global (2006) Business Management(An International economic environment), Macmillan India Ltd
5. Hill C.W. L. and Jain A. K.(2007) International Business Competing in Global market Place, McGraw Hill, New Delhi
6. Graham John L, Salwan Prashant, Cateora Philip R, (2008)International Marketing 13th Ed. Tata McGraw- Hill.
7. Jeevnandam C. International Business S.Chand, New Delhi 2008
8. Paul Justein International Business, 5th Ed (2011)Prentice Hall of India, Pvt Ltd new Delhi

9. Keegan Warren J. and Green Mark C. Global Marketing, 4th Ed.(2009) Prentice Hall India, Pvt. Ltd.

10. Bhalla V. K. and Ramu S.S.(2009) International Business Environment, Anmol Prakashan, New Delhi.

11. Varshney R.L. and Bhattacharya B, (2012) International Marketing Management -An Indian Perspective, 24th Ed S. Chand, New Delhi.

12. Dutt and Sundaram K P M, Indian Economy, S. Chand, New Delhi.

13. Dutt Ruddar, Economic Reforms in India –A Critique, S Chand , New Delhi.

14.Mishara S K and Puri V K - Indian Economy, Himalaya Publishing House.

15. Namboodripad E M S, Indian Planning and Crises, National Book Center, New Delhi.

16.Sundaram and Black The International Business Environment, Prentices, New Delhi

Equivalence of the papers

Existing Title of the Paper	Revised Title of the Paper
Business Environment Paper II	Business Environment Paper II

Nature of question paper for B.Com - III
Semester V and VI (Paper No. I to II)

Attempt any five questions.

Total Marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com (CBCS) Part-III (Semester-V)
Paper – I : DSE-A1 : Advanced Accountancy
Discipline Specific Course

4 Credits

Course Outcomes:

1. Practice the preparation of financial statements of banks.
2. Demonstrate accounting for farms and hire purchase system.
3. Simulate accounting situations of insurance claim.
4. Explain the accounting process on Tally with GST.

Syllabus Content

Unit- I	Bank Final Accounts (Vertical Format Only)	20 Lectures
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Unit- II	a) Farm Accounting	10 Lectures
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	b) Hire purchase system-Excluding Hire purchase Trading Account	10 Lectures
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Unit- III	Insurance Claim- Loss of stock and Loss of profit policy	10 Lectures
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Unit- IV	GST Accounting with practical's using Tally part – I Theory	10 Lectures
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Introduction to GST on Goods, Introduction, Indirect Taxation prior GST, GST Implementation in India, Why GST was introduced in India? Understanding GST Taxation System, Dual GST, Structure of GST, Determination of Tax, Registration, GSTIN Structure, Businesses Liable to Register under GST, Tax Invoice, Bill of Supply, Supplementary Invoice, Input Tax Credit Set Off, GST Returns, Payment of Tax.

Practical:

- a) Getting Started with GST (GOODS) in Tally ERP 9, Basic Concepts in GST, Configuring GST in Tally. ERP 9, Company Setup, Enabling Goods & Services Tax (GST),
- b) GST Classifications, Creating Masters, Creating Purchase Ledger, Creating Sales Ledger, Creating GST Ledger, Creating Party Ledger, Creating Stock Items
- c) Entering Transactions, Creating Purchase Invoice with GST, Creating Sales Invoice with GST, Printing Sales invoice
- d) GST Reports, GST Tax Payment

Reference Books:

- 1) Gupta, S. C.; Gupta, M. P.; Shukla, M. C.; Agrawal, B. M. and Grewal, T. S. (2019). Advanced Corporate Accounting, S. Chand & Company, New Delhi.
- 2) Shukla, M. C.; Grewal, T. S. and Gupta, S. C.; (2016). Advanced Accounts, S. Chand & Company, New Delhi.
- 3) Arulnandan, M. A. and Raman, K. S. (2018). Advanced Accountancy (Corporate Accounting) Vol. II, Himalaya Publishing House, Mumbai.
- 4) Gupta, R. L. and Radhaswamy, M. (2018). Advanced Accountancy Vol. II, Sultan Chand and Sons; New Delhi.
- 5) Maheshwari, S. N.; Maheshwari, Suneel and Maheshwari, Sharad K. (2018). Corporate Accounting. Vikas Publication House, New Delhi.

- 6) Jain, S. P.; Narang, K. L.; Agrawal, Simmi and Sehgal, Monik (2018). Advanced Accountancy Vol. I & II, Kalyani Publishers, New Delhi.
- 7) Hanif, M. and Mukharjee, A (2018). Modern Accountancy Vol. II, McGraw Hill Education India (Private) Ltd., Noida.
- 8) Chakraborty, Hrishikesh, Advanced Accountancy, Oxford University Press
- 9) Chougule, Rajan (2011). Computerized Accounting, Kolhapur.

Journals:

- 1) Indian Journal of Accounting
- 2) Chartered Accountant
- 3) Management Accountant

Nature of Question Paper
 B.Com (CBCS) Part-III (Semester-V)
 Advanced Accountancy Paper-I
 Discipline Specific Course
 (Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Problem on Bank Final Accounts (This problem should be on Profit & Loss Account, Balance Sheet alongwith required schedules)		16 Marks
Question 2	Attempt any two questions (out of three): (These questions will be practical problems on Unit-II & III)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

Notes:

- 1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-I.
- 2) External examiner will be appointed by the university to conduct this practical examination.
- 3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

B.Com (CBCS) Part-III (Semester-V)
Paper – II : DSE-A2 : Advanced Accountancy (Auditing)
Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the concept and types of audit
2. To identify the residential status and its implication on tax liability
3. To understand the concept of exemption from income
4. To know the computation of income from various sources as well as total income

Syllabus Content

Unit- I	Nature and Scope of Audit: Audit – Meaning and Nature, Scope of Audit, Objectives of Audit, Relationship of Audit with other disciplines, Difference between Audit and Investigation, Basic Principles Governing Audit, Statutory Audit, Internal Audit, Cost Audit, Tax Audit, Management Audit, Concept of Vouching, Verification and Valuation.	15 Lectures
Unit- II	Audit of Specific Items in Financial Statements: A) Audit of sale of Products and Services; Audit of Interest Income, Rental Income, Dividend Income, Net gain/loss on sale of Investments; Audit of Purchases, Depreciation, Interest expense, Rent, Repair to building, Repair to Machinery, Insurance, Taxes, Travelling Expenses, Miscellaneous Expenses B) Audit of Share Capital, Reserve & Surplus, Long Term Borrowings, Trade Payables (creditors), Provisions, Short Term Borrowings and Other Current Liabilities, Audit of Land, Buildings, Plant and Equipment, Furniture and Fixtures, Goodwill, Brand/Trademarks, Computer Software, Audit of Loans and Advances, Trade Receivables, Inventories, Cash and Cash Equivalents, Other Current Assets, Audit of Contingent Liabilities.	15 Lectures
Unit- III	Company Audit: Eligibility, Qualifications and Disqualifications of Auditors; Appointment of auditors; Removal of auditors; Remuneration of Auditors; Powers and duties of auditors; Branch audit; Joint audit; Reporting requirements under the Companies Act, 2013 including CARO.	15 Lectures
Unit- IV	Special Audit and Audit Report: Audit of special entities like Bank, Insurance Companies, Charitable Trust, Hotel and Hospital, Elements of Audit Report; Types of Reports – Clean, Qualified, Adverse, Disclaimer of Opinion;	15 Lectures

Reference Books:

- 1) Tandon B.N., : Practical Auditing, S.Chand, New Delhi
- 2) Kumar, A., Sharma, R.; : Auditing Theory and Practice, Atlantic Publishers, New Delhi
- 3) Johnson S., Wiley L. : : Auditing – A Practical Approach, Wiley Publishing House
- 4) Garg Pankaj : Auditing and Assurance, Taxmann Publications, New Delhi
- 5) Bansal, Surabhi : Auditing and Assurance, Wolters Kluwer Publication
- 6) Sekhar G, Prasath B. : Auditing and Assurance, Taxmann, New Delhi
- 7) Dinkar Pagare :
- 8) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final for Auditing

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-V)
Advanced Accountancy Paper-II
(Auditing)
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
Question 1	Long Answer Questions A) 8 Marks B) 8 Marks		16 Marks
Question 2	Attempt Any Two (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper- III : DSE-A3 : Advanced Accountancy
Discipline Specific Course

4 Credits

Course Outcomes:

1. Practice the preparation of financial statements of banks.
2. Demonstrate accounting for farms and hire purchase system.
3. Simulate accounting situations of insurance claim.
4. Explain the accounting process on Tally with GST.

Syllabus Content

Unit- I Elements of Cost - Material, Labour, & Overheads, 10 Lectures
Preparation of Cost Sheet, Quotation

Unit- II Financial Statement Analysis: 20 Lectures

a) Financial Statement Analysis- Meaning, types, Limitations of financial statements, Meaning and Need of financial statement analysis and Techniques of financial statement analysis.

(b) Ratio Analysis– Meaning, Advantages and Limitations, Classification of Ratios- Profitability Ratios, Turnover Ratios, Solvency Ratios and Liquidity Ratios.

Unit- III Cash Flow Analysis: 15 Lectures

Meaning of Cash Flow Analysis, Classification of Cash flows- Cash flow from Operating Activities, Cash flow from Investing Activities and Cash flow from Financing Activities, Cash and Cash equivalents, Extra-ordinary items, Preparation of Cash Flow Statement (As per AS-3)

Unit- IV	GST Accounting with practicals using Tally part - II	15 Lectures
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Theory:

4. Introduction to GST on Services, Existing Registration, Supply of Goods and Services, Scope of Supply, Place of Supply, Time of Supply, Value of Supply ,Mixed Supply and Composition Supply, Accounting for

Return of Goods, Sales Returns, Purchase Returns, Credit Note, Debit Note, GST on Services, GST Reports & GST Returns

Practical:

- a) Getting Started with GST in Tally ERP 9, Basic Concepts in GST, Configuring GST in Tally.ERP 9, Company Setup, Enabling Goods & Services Tax (GST), GST Classifications
- b) Creating Masters, Creating Purchase Ledger, Creating Sales Ledger, Creating GST Ledger, Creating Party Ledger, Creating Stock Items
- c) Entering Transactions, Creating Purchase Invoice with GST, Creating Sales Invoice with GST, Printing Sales invoice, Accounting for Return of Goods, Sales Returns, Purchase Returns
- d) Accounting for GST on Services
- e) GST Reports, Generating GSTR-1 Report in Tally.ERP 9, Generating GSTR-2 Report in Tally.ERP 9, GST Tax Payment, Time line for payment of GST tax, Modes of Payment, Challan Reconciliation, Exporting returns and uploading To GSTIN

Notes:

- 1) Practical problems in the university examinations will be asked on Unit-I, II & III (however, problems on Unit-II shall be asked on Ratio Analysis only).
- 2) College should make a provision of necessary computers and accounting software for commerce department to train the students in Tally with GST as prescribed in the syllabus.
- 3) A visit should be arranged for increasing awareness of students regarding Tally with GST either in any business unit, Company Office or the Office of any Chartered Accountant/ Professional Accountant.

Reference Books:

- 1) Advanced Cost Accounting - N K Prasad
- 2) Cost Accounting - Jain & Narang
- 3) Cost Accounting – Ravi M Kishore Taxman
- 4) Principles of Management Accounting - Manmohan Goyal
- 5) Management Accounting - I. M. Pandey
- 6) Cost & Management Accounting - Jain & Narang
- 7) Advanced Accountancy - R. R. Gupta
- 8) Cost and Management Accounting M N Arora Vikas Publication
- 9) Cost and Management Accounting T Thukaram Rao
- 10) Fundamentals of Management Accounting- I M Pandey
- 11) Cost and Management Accounting- Horngreen and Datar and others

Journals:

- 4) Indian Journal of Accounting
- 5) Chartered Accountant
- 6) Management Accountant

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-VI)
Advanced Accountancy Paper-III
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Problem		16 Marks
Question 2	Attempt any one problem (out of two)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

Notes:

- 1) Practical examination for 10 marks will be conducted on Unit-IV of Paper-III.
- 2) External examiner will be appointed by the university to conduct this practical examination.
- 3) There will be 40 marks for University Written examination and 10 marks for practical examination. Thus Total marks will be 50.

B.Com (CBCS) Part-III (Semester-VI)
Paper – IV : DSE-A4 : Advanced Accountancy (Taxation)
Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the basic concepts of income tax and basis of charge
2. To identify the residential status and its implication on tax liability
3. To understand the manner of computation of total income
4. To know the basic concepts about GST

Unit- I	Basic Concepts:	15 Lectures
	A) Meaning of Income Tax, Basis of Charge, Rates of Tax, Concepts of Previous Year, Assessment Year, Person, Income, Assessee.	
	B) Residential Status and Taxability - Meaning of Residential Status, Provisions for determination of Residential status and tax liability in respect of individual and HUF, Determination of Residential Status of Firms and Companies.	
Unit- II	Exemptions and Deductions from total income (in respect of individual only)	10 Lectures
Unit- III	Heads of Income, Computation of total income and tax liability: Income from Salary, Income from House Property, Income from Business/Profession, Income from Capital Gain, Income from Other Sources, Computation of Gross Total Income and Tax Liability in respect of Individuals only.	25 Lectures
Unit- IV	Basics of GST: Meaning and Features of GST, Benefits of GST, Need of GST, Constitutional Provisions of GST, Levy and Collection of GST, Introduction to CGST, SGST, IGST, UTGST.	10 Lectures

Reference Books:

- 1) Singhania, V.K. : Students' Guide to Income Tax, Taxmann Publication, New Delhi
- 2) Manoharan, T.N. : Direct Taxes : Snow White Publications, New Delhi
- 3) Singhania, Monica : Students' Guide to Income Tax and GST, Taxmann, New Delhi
- 4) Sury, M.M. : Goods and Services Tax in India,
- 5) Agarwal, CA VK : GST Guide for Students, Neelam Book House, Delhi
- 6) Datey, V.S. : GST Ready Reckoner, Taxmann, New Delhi
- 7) Thakkar, Vishal : GST for the Layman, TV18Broadcast Ltd.,

- 8) Kadkol M.B., Income Tax : Law and Practice,
- 9) Mehta : Income Tax Ready Reckoner
- 10) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final for Taxation

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-VI)
Advanced Accountancy Paper-IV
(Taxation)
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
Question 1	Practical Problem (Computation of Taxable Income and Tax Liability)		16 Marks
Question 2	Practical Problems -Attempt Any Two (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-V)
Paper - I : DSE-C1 : Advanced Costing
Discipline Specific Course

4 Credits

Course Outcomes:

- 1) To understand the basic concepts of cost accounting.
- 2) To classify the cost and apply the same for cost determination.
- 3) To understand the cost accounting procedure in respect of materials.
- 4) To know the application of cost accounting in determination of labour cost.

Syllabus Content

Unit- I	Basics of Cost Accounting: Meaning:- Concepts of Cost, Costing, Cost Accounting, Cost Accountancy; Nature, Scope, objectives and importance of Cost Accounting; Difference between Cost Accounting, Financial Accounting and Management Accounting.	10 Lectures
Unit- II	Elements of Cost: Elements of Cost- Concepts of Material Cost, Labour Cost and Overheads; Classification of Cost, Cost Centre and Cost Unit, Cost Sheet, Tender and Quotation, Preparation of Cost Sheet.	15 Lectures
Unit- III	Material Cost: Storage of Material, Objectives of Store Keeping, Fixation of Stock Levels and Economic Order Quantity; Pricing of Issue of Material – FIFO, LIFO, Simple Average Method, Weighted Average Method.	15 Lectures
Unit- IV	Labour Cost: Labour Cost- Meaning and Importance, Time Keeping and Time Booking, Methods of Remuneration and incentives, Sound Wage policy (Characteristics and Factors considered for wage determination), Time Rate System, Piece Rate system, Taylor's Differential Piece Rate and Merrick's Differential / Multiple Piece Rate system, Halsey Plan and Rowan Plan.	20 Lectures

Reference Books:

- 1) Practical Problems in Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi

- 2) Cost Accounting Methods and Problems – B. K. Bhar, Academic publishers Kolkatta
- 3) Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 4) Principles and Practices of Costing - Lal and Nigam, Himalaya publishing house.
- 5) Cost Accounting - Lal and Nigam, Himalaya publishing house
- 6) Cost Management : Ravi M Kishore, Taxmann Publications

Nature of Question Paper

B.Com (CBCS) Part-III (Semester-V)

Advanced Costing Paper-I

Discipline Specific Course

(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problems		16 Marks
	A) 8 Marks }		
	B) 8 Marks }		
Question 2	Attempt Any Two Practical Problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-V) Paper - II : DSE-E2 : Advanced Costing Discipline Specific Course

4 Credits

Course Outcome:

- 1) To identify the meaning of overheads and its classification
- 2) To understand different methods of absorption of overheads.
- 3) To find out the reasons for difference between profit as per cost and financial accounts.
- 4) To understand meaning of activity based costing and its practical application.

Syllabus Content

Unit- I	Overheads: Meaning, Classification of Overheads, Concepts of Allocation, Absorption, Apportionment and Reapportionment of overheads.	15 Lectures
Unit- II	Absorption of Overheads: Meaning, Methods of Absorption: - Production Unit Method, Percentage on Direct Material Cost, Percentage on Direct Wages, Percentage of Prime Cost, Direct Labour Hour Method, Machine Hour Rate, Apportionment and Reapportionment of Overheads.	15 Lectures
Unit- III	Reconciliation of Cost And Financial Accounts: Need for Reconciliation of Cost and Financial Accounts. Preparation of Statement of Reconciliation of Cost and Financial Accounts.	15 Lectures
Unit- IV	Activity Based Costing: Meaning, Objectives, Advantages and Limitations of Activity Based Costing, Cost Drivers, Preparation of Statement of Cost as per Activity Based Costing.	15 Lectures

Reference Books:

- 1) Practical Problems in Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 2) Cost Accounting Methods and Problems – B. K. Bhar, Academic publishers Kolkatta
- 3) Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 4) Principles and Practices of Costing - Lal and Nigam, Himalaya publishing house.
- 5) Cost Accounting - Lal and Nigam, Himalaya publishing house
- 6) Cost Management : Ravi M Kishore, Taxmann Publications

Nature of Question Paper
 B.Com (CBCS) Part-III (Semester-V)
 Advanced Costing Paper-II
 Discipline Specific Course
 (Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problems C) 8 Marks } D) 8 Marks }		16 Marks
Question 2	Attempt Any Two Practical Problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper - III : DSE-C3 : Advanced Costing
(Methods of Cost Accounting)
 Discipline Specific Course

4 Credits

Course Outcome:

- 1) To understand the concepts of job and unit costing.
- 2) To know the applications of process costing and joint product and by product accounting
- 3) To understand procedure of contract costing and its practical implementation
- 4) To identify meaning of service costing and its application.

Syllabus Content

Unit- I	Job Costing and Unit Costing: Meaning, Features, Practical Applications of Job Costing and Unit Costing, Preparation of Job Cost Sheet.	15 Lectures
Unit- II	Process Costing: Process Costing: Meaning and its Applications, Concept of Equivalent Production, Preparation of Process Accounts, Concepts of Joint Products and By Products. (Note : Problems on Process Costing excluding Equivalent Production).	15 Lectures
Unit- III	Contract Costing: Contract Costing: Meaning, Features, Accounting Procedure, Retention money, Escalation Clause, Work in Progress, Cost Plus Contract. Preparation of Contract Account.	15 Lectures
Unit- IV	Operation/ Service Costing: Service Costing : Meaning and Definition, Application of Service Costing, Determination of Service Cost in Transport Industry	15 Lectures

Reference Books:

- 1) Practical Problems in Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 2) Cost Accounting Methods and Problems – B. K. Bhar, Academic publishers Kolkatta
- 3) Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 4) Principles and Practices of Costing - Lal and Nigam, Himalaya publishing house.
- 5) Cost Accounting - Lal and Nigam, Himalaya publishing house
- 6) Cost Management : Ravi M Kishore, Taxmann Publications

Nature of Question Paper
 B.Com (CBCS) Part-III (Semester-VI)
 Advanced Costing Paper-III
 (Methods of Cost Accounting)
 Discipline Specific Course
 (Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problems E) 8 Marks } F) 8 Marks }		16 Marks
Question 2	Attempt Any Two Practical Problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper – IV : DSE-C4 : Advanced Costing
(Costing Techniques)
 Discipline Specific Course

4 Credits

Course Outcome:

- 1) To know the applications of marginal costing in decision making.
- 2) To understand the concept of standard costing and analysis of variances.
- 3) To know the concept and types of budgets and concept of budgetary control.
- 4) To understand prospects of cost accounting standards.

Syllabus Content

Unit- I	Marginal Costing: Meaning and Importance of Marginal Costing, CVP Analysis, Profit – Volume Ratio, Break Even Point, Margin of Safety, Interpretation of BEP Analysis.	15 Lectures
Unit- II	Standard Costing: Standard Costing : Meaning, Objectives, Features; Types of Standards, Variance Analysis – Material Cost Variance, Labour Cost Variance and Overhead Variance and Interpretation of Variance Analysis.	15 Lectures
Unit- III	Budget and Budgetary Control: Meaning, Objectives, Types of Budgets; Preparation of Cash Budget, Fixed and Flexible Budget; Budgetary Control System- Features and Components.	20 Lectures
Unit- IV	Cost Audit and Cost Accounting Standards: Cost Audit : Meaning, Legal Requirement, Objectives; Setting Process, List and Applicability of Cost Accounting Standards	10 Lectures

Reference Books:

- 7) Practical Problems in Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 8) Cost Accounting Methods and Problems – B. K. Bhar, Academic publishers Kolkatta
- 9) Cost Accounting- S. P.Jain and K. L Narang, Kalyani publishes New Delhi
- 10) Principles and Practices of Costing - Lal and Nigam, Himalaya publishing house.
- 11) Cost Accounting - Lal and Nigam, Himalaya publishing house
- 12) Cost Management : Ravi M Kishore, Taxmann Publications

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-VI)
Advanced Costing Paper-VI
(Costing Techniques)
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problems G) 8 Marks } H) 8 Marks }		16 Marks
Question 2	Attempt Any Two Practical Problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-V)
Paper – I : DSE-D1 : Taxation
Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the basic concepts of income tax and basis of charge
2. To identify the residential status and its implication on tax liability
3. To understand the concept of exemption from income
4. To know the computation of income from various sources as well as total income

Syllabus Content

Unit- I	Basic Concepts: Introduction to Income Tax Law, Meaning of Previous Year, Assessment Year, Person, Income, Assessee, Basis of Charge, Rates of Tax.	10 Lectures
Unit- II	Residential Status and Taxability: Determination of Residential Status of Individual, HUF, Firm and Company; Taxable Income in respect of Resident Individual, Resident but Not Ordinarily Resident Individual, Non Resident Individual; Taxability of Resident as well as Non Resident Firms and Companies	15 Lectures
Unit- III	Income Not Forming Part of Total Income (Exemptions): Concept of Exemption, Specific Provisions of Exemption under section 10 – Profit Sharing from Partnership Firm, Agricultural Income, Leave Travel Concession, Gratuity, Leave Encashment, House Rent Allowance	15 Lectures
Unit- IV	Heads of Income: Features of Various Heads of Income – Salary, House Property, Capital Gain, Business/Profession, Other Sources, Determination of Taxable Income from Each of these Sources of Income, Computation of Total Income	10 Lectures

Reference Books:

- 1) Singhania, V.K. : Students' Guide to Income Tax, Taxmann Publication, New Delhi
- 2) Manoharan, T.N. : Direct Taxes : Snow White Publications, New Delhi
- 3) Singhania, Monica : Students' Guide to Income Tax and GST, Taxmann, New Delhi
- 4) Sury, M.M. : Goods and Services Tax in India,
- 5) Agarwal, CA VK : GST Guide for Students, Neelam Book House, Delhi
- 6) Datey, V.S. : GST Ready Reckoner, Taxmann, New Delhi

- 7) Thakkar, Vishal : GST for the Layman, TV18Broadcast Ltd.,
- 8) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final-Taxation

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-V)
Taxation Paper-I
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problem A) 8 Marks B) 8 Marks		16 Marks
Question 2	Attempt Any Two Questions on theory or problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-V)
Paper – II : DSE-D2 : Taxation
Discipline Specific Course

4 Credits

Course Outcomes:

- 5) To know the meaning of clubbing of income
- 6) To understand the provisions of set off and carry forward of losses
- 7) To find out the deductions available from Gross Total Income
- 8) To understand meaning the manner of computation of tax liability

Syllabus Content

Unit- I	Clubbing of Income: Meaning of Clubbing of Income, Transfer of Income without Transfer of Assets, Income Arising from Revocable Transfers, Provisions relating to Clubbing, Income arising to Spouse, Minor Child.	10 Lectures
Unit- II	Carry Forward and Set-Off of Losses: Concept of Carry Forward of Losses, Concept of Set-Off of Carried Forward Losses, Provisions relating to Set-Off and Carry Forward of Losses against various Heads of Income, Conditions for Carrying Forward of Losses.	10 Lectures
Unit- III	Deductions from Gross Total Income: Concept of Deduction, Difference between Exemption and Deduction, Deduction from Gross Total Income in respect of Payments, Specific Provisions about Deduction under Section 80 C, 80D, 80 E and 80 G.	15 Lectures
Unit- IV	Computation of Total Income and Tax Liability: Determination of Gross Total Income considering various sources of Income, Computation of Taxable Income considering deductions, Computation of Tax Liability in case of Individual, H.U.F., Firm and Company Considering rates of tax.	25 Lectures

Reference Books:

- 1) Singhania, V.K. : Students' Guide to Income Tax, Taxmann Publication, New Delhi
- 2) Manoharan, T.N. : Direct Taxes : Snow White Publications, New Delhi
- 3) Singhania, Monica : Students' Guide to Income Tax and GST, Taxmann, New Delhi
- 4) Sury, M.M. : Goods and Services Tax in India,
- 5) Agarwal, CA VK : GST Guide for Students, Neelam Book House, Delhi
- 6) Datey, V.S. : GST Ready Reckoner, Taxmann, New Delhi

- 7) Thakkar, Vishal : GST for the Layman, TV18Broadcast Ltd.,
- 8) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final-Taxation

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-V)
Taxation Paper-II
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problem C) 8 Marks D) 8 Marks		16 Marks
Question 2	Attempt Any Two Questions on theory or problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper - III : DSE-D3 : Taxation
Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the concepts of TDS, TCS and Advance Tax
2. To know the procedure of filing of income tax return
3. To understand procedure of assessment and various types of assessments
4. To know the powers and functions of income tax authorities

Syllabus Content

Unit- I	TDS, TCS and Advance Tax: Concepts of Advance Tax, Tax Deducted at Source and Tax Collected at Source; Provisions relating to Interest for Default in Payment of Advance Tax, TDS and TCS; Tax Deduction and Tax Collection Account Number; Filing of TDS Returns.	15 Lectures
Unit- II	Self Assessment Tax and Filing of Income Tax Return: Payment of Self Assessment Tax, Filing of Income Tax Return, Compulsory Filing of Return, Penalty for Default in Filing of Return, Return of Loss, Provisions related to Revised and Belated Return, Procedure of Online Payment of Tax and Filing of Return.	15 Lectures
Unit- III	Assessment of Tax: Assessment, Reassessment, Best Judgment Assessment, Income Escaping Assessment, Self Assessment, Scrutiny Assessment, Protective Assessment, Appeals and Revision, Search and Survey.	15 Lectures
Unit- IV	Authorities of Income Tax: Income Tax Authorities - Functions of CBDT, DGIT, Chief Commissioner of Income Tax; Powers and duties of Commissioner of Income Tax, Commissioner of Income Tax (Appeals), Additional Director (or Commissioner), Joint Director (or Commissioner), Income Tax Officer, Assistant Director (or Commissioner), Tax Recovery Officer and Inspector.	15 Lectures

Reference Books:

- 1) Singhania, V.K. : Students' Guide to Income Tax, Taxmann Publication, New Delhi

- 2) Manoharan, T.N. : Direct Taxes : Snow White Publications, New Delhi
- 3) Singhanian, Monica : Students' Guide to Income Tax and GST, Taxmann, New Delhi
- 4) Sury, M.M. : Goods and Services Tax in India,
- 5) Agarwal, CA VK : GST Guide for Students, Neelam Book House, Delhi
- 6) Datey, V.S. : GST Ready Reckoner, Taxmann, New Delhi
- 7) Thakkar, Vishal : GST for the Layman, TV18Broadcast Ltd.,
- 8) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final-Taxation

Nature of Question Paper
B.Com (CBCS) Part-III (Semester-VI)
Taxation Paper-III
Discipline Specific Course
(Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problem E) 8 Marks F) 8 Marks		16 Marks
Question 2	Attempt Any Two Questions on theory or problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

B.Com (CBCS) Part-III (Semester-VI)
Paper- IV : DSE-D4 : Taxation
Discipline Specific Course

4 Credits

Course Outcomes:

1. To understand the concept of GST
2. To know the procedure of registration under GST
3. To understand the important concepts related to GST
4. To understand the legal framework of GST in India

Syllabus Content

Unit- I	Basics of GST: Meaning of GST, Need for GST, Features of GST, Application of GST in India, Rates of GST, Benefits of GST, Charge or Levy of GST.	15 Lectures
Unit- II	Registration: Persons liable and not liable for registration under GST, Amendment and Cancellation of GST registration, Exemptions from GST, Goods and Services exempted from GST.	15 Lectures
Unit- III	Important Concepts under GST: Input Tax Credit : Meaning, Definition, Eligibility for taking Input Tax Credit Tax Invoice, Debit and Credit Notes : Meaning, Proforma and Amounts to be Indicated Payment of Tax and Return : Procedure of payment of GST and Filing of Returns of GST	15 Lectures
Unit- IV	Legal Framework of GST in India: Application of CGST, SGST, IGST and UTGST Acts, Provisions of Levy, Collection, Composite Scheme and Commencement of GST Regime as per various acts	15 Lectures

(Note: Problems shall be asked on Unit 3 and 4 only)

Reference Books:

- 1) Singhania, V.K. : Students' Guide to Income Tax, Taxmann Publication, New Delhi
- 2) Manoharan, T.N. : Direct Taxes : Snow White Publications, New Delhi
- 3) Singhania, Monica : Students' Guide to Income Tax and GST, Taxmann, New Delhi
- 4) Sury, M.M. : Goods and Services Tax in India,
- 5) Agarwal, CA VK : GST Guide for Students, Neelam Book House, Delhi
- 6) Datey, V.S. : GST Ready Reckoner, Taxmann, New Delhi
- 7) Thakkar, Vishal : GST for the Layman, TV18Broadcast Ltd.,
- 8) The Institute of Chartered Accountants of India, Study Material for CA Inter/Final-Taxation

Nature of Question Paper
 B.Com (CBCS) Part-III (Semester-VI)
 Taxation Paper-IV
 Discipline Specific Course
 (Introduced from June-2020)

Instructions:	i)	All the questions are compulsory.	Total : 40 Marks
	ii)	Figures to the right indicate full marks.	
	iii)	Use of calculator is allowed.	
Question 1	Practical Problem G) 8 Marks H) 8 Marks		16 Marks
Question 2	Attempt Any Two Questions on theory or problems (out of three)		16 Marks
Question 3	Write short notes (Attempt any two out of four)		08 Marks

(Note: Problems shall be asked on Unit 3 and 4 only)

B.Com-III Semester – V (CBCS)
Paper-I : DSE-F1 : Insurance
(Life Insurance)

Objectives

- i) To acquaint the students with the basics of Life Insurance and its procedure
- ii) To familiarize the students with the insurable risk and various life insurance products

Unit I: - Introduction to Life Insurance:-

- 1.1 : Life Insurance -Evolution, Meaning, Definition, Features
- 1.2 : Human Assets, Principles of Protection and Investment in Life Insurance, Principles applicable to life insurance
- 1.3 : Socio-Economic significance of Life Insurance, Life Insurance as a social security tool
- 1.4 : Role of Life Insurance in financial planning, Life insurance needs at various Life stages

(15periods)

Unit II: - Life Insurance Contract & Conditions:-

- 2.1: Life Insurance Contract –Meaning and Nature, Conditions of valid Life Insurance Contract
- 2.2 :Procedure of taking life insurance policy, Procedure of settlement of death and maturity claims
- 2.3 :Policy conditions relating to payment of premium, grace days, surrender value, paid up policy, lapses of policy, revival of lapsed policy
- 2.4 :Policy conditions relating to nomination and assignment of policy, accident and disability benefits

(15periods)

Unit III: - Life Insurance Risk and Premium:-

- 3.1 : Meaning and definition of risk, Classification of risk : physical, occupational and

moral, insurable and non-insurable risk

3.2 : Risk to human life, Evaluation of risk, – Factors affecting longevity of a person

3.3 : Calculation of Premium, Steps in calculation of premium, calculation of net single premium for term insurance, whole life insurance and endowment insurance policy, Types of premium, Premium calculation

3.4 :Underwriting : Meaning and importance, Non-medical underwriting – Female lives underwriting – Recent Trends in underwriting (15periods)

Unit IV: - Life Insurance Products:-

4.1 : Whole Life Policy : Meaning, features, merits-demerits and types

4.2 :Endowment Policy : Meaning, features, merits-demerits and types

4.3 :Term Assurance, Annuities, Group Insurance (only features & Types)

4.4 :ULIP – Comparison of ULIP with Traditional Insurance–Riders,(15periods)

Practical : Visit the nearest office of life insurance and collect the information of various life insurance policies.

Reference Books for Paper No. I to IV

1. Insurance Principles and Practice – M.N. Mishra and S.B.Mishra, S. Chand and Co. NewDelhi
2. Principles and Practice of Insurance – M. Motihar, ShardaPustakBhavan, Allhabad
3. Principles of Risk Management and Insurance – Dr. Neelam C. Gulati, Excel Books, NewDelhi
4. Theory and practice of Insurance – M. Arif Khan, Taj Printing Works , Aligarh
5. RiskManagementinBankingandInsurance-S.B.Verma,Y.Uppadhyay, R.K. Shrivasaawa, Deep and Deep Publications Pvt. Ltd
6. Insurance Principles and Practice – M.N. Mishra, S. Chand and Co. New Delhi
7. Insurance Theory and practice – NaliniPravaTripathy, Prabir Pal, PHI Learning Pvt Ltd NewDelhi
8. Insurance and Risk Management – Dr. P.K.Gupta, Himalaya Publishing House
9. Insurance Meaning and Its Principles – B.D.Bhargava, Pearl Books New Delhi
10. Insurance Law And Practice – C.L.Tyagi, MadhuTyagi, Atlantic Publishers and Distributers Pvt Ltd
11. General Insurance - S. Balachandran, Insurance Institute of India Mumbai 12.Life Insurance - S. Balachandran, Insurance Institute of IndiaMumbai

B.Com. Part-III Semester – V
Paper-II : DSE-F2 : Insurance
(General Insurance)

Objectives

- i) To familiarize the student with the glimpses of fire insurance and motor insurance and their procedural aspects.
- ii) To expose the students to the important legal provisions with the respect to IRDAI in general and Fire and Motor insurance in particular

Unit I: - Fire Insurance:-

- 1.1: Fire Insurance : Meaning of fire and fire insurance, Nature, Physical hazards in fire insurance, Importance of fire insurance
- 1.2 : Principles of fire Insurance and conditions of fire insurance policy
- 1.3 :Concepts and difference between Co-insurance & Reinsurance- Methods of Reinsurance, Advantages of Reinsurance, Under-insurance and over-insurance
- 1.4 : Progress of fire insurance businessin India after privatization (15Periods)

Unit II: - Fire Insurance Policy and Rating–

- 2.1: Procedure of taking fire insurance policy, Renewal of fire insurance policy, Settlement of claim under fire insurance
- 2.2 : Cancellation and forfeiture of fire insurancepolicy.
- 2.3 : Kinds of fire insurance policy
- 2.4 : Rating - Rate fixation in Fire Insurance - System, Principles - Theory of Rating – Bases of Rating - Degree of Hazards – Classification of Risk Past loss experience and lawofprobability. (15Periods)

Unit III:-Basics of Motor Insurance–

- 3.1 :Meaning, Need, Basic Principles of motor insurance
- 3.2 :Classification of vehicles under motor insurance, Types of motor insurance policy
- 3.3 :Procedure of taking Motor Insurance Policy, Settlement of Claim under motor insurance, No Claim Bonus
- 3.4 :Factors considered for premium rating under motor insurance, Conciliation forum, motor accident tribunal (15Periods)

Unit IV:- Documentation and Legislation –

- 4.1: Documents in Fire Insurance – Proposal Form, Survey Report, Cover Note, Policy, Endorsement, Renewal Notice, Claim Form.
- 4.2: Documents in Motor Insurance – ProposalForm,Survey Report, Cover Note, Policy, Certificate of Insurance, Registration Certificate Book, Fitness Certificate and Permit (for commercial vehicle)
- 4.3: Legislations – Important provisions relating to fire insurance in Insurance Act 1938, Importantprovisionsrelating to Motor Insurance in Motor VehicleAct1988.
- 4.4 : Insurance Regulatory and Development Authority of India (IRDAI)Act, 1999 : Important provisions (15Periods)

Practical :

- (i) Take survey of properties covered under fire insurance in local community.
- (ii) Collect the information of the types of motor insurance policies taken by vehicle owners in local community.

Reference Books for Paper No. I to IV

- 1) Insurance Principles and Practice – M.N. Mishra and S.B.Mishra, S. Chand and Co. NewDelhi
- 2) Principles and Practice of Insurance – M. Motihar, ShardaPustakBhavan, Allhabad
- 3) Principles of Risk Management and Insurance – Dr. Neelam C. Gulati, Excel Books, NewDelhi
- 4) Theory and practice of Insurance – M. Arif Khan, Taj Printing Works , Aligarh
- 5) RiskManagementinBankingandInsurance-S.B.Verma,Y.Uppadhyay, R.K. Shrivasaatawa, Deep and Deep Publications Pvt. Ltd
- 6) Insurance Principles and Practice – M.N. Mishra, S. Chand and Co. New Delhi
- 7) Insurance Theory and practice – NaliniPravaTripathy, Prabir Pal, PHI Learning Pvt Ltd NewDelhi
- 8) Insurance and Risk Management – Dr. P.K.Gupta, Himalaya Publishing House
- 9) Insurance Meaning and Its Principles – B.D.Bhargava, Pearl Books New Delhi
- 10) Insurance Law And Practice – C.L.Tyagi, MadhuTyagi, Atlantic Publishers and Distributers Pvt Ltd
- 11) General Insurance - S. Balachandran, Insurance Institute of IndiaMumbai
- 12) Life Insurance - S. Balachandran, Insurance Institute of IndiaMumbai

B.Com-III Semester – VI
Paper – III :DSE-F3 : Insurance
(Claim Management in Life Insurance)

Objectives

- i) To provide the sound understanding to the student about managing the claims under life insurance
- ii) To acquaint the students with the life insurance legalization and documents

Unit I : - Life Insurance Agent (Financial Adviser)

- 1.1 : Life Insurance Agent: Meaning, Procedure for becoming an Agent, Insurance Agency as a Profession, Qualifications & disqualification for Life Insurance Agent
 - 1.2 : Role of an Insurance Agent in distribution of insurance products, Functions of an life insurance Agent
 - 1.3: Code of conduct for life insurance agent, Remuneration of life insurance agent
 - 1.4 : Use of Internet and Intranet means by LIC agent, Benefits of Information Technology to Insurance Agent and Policy holders
- (15periods)**

Unit II: - Life Insurance : Documents and Progress:-

- 2.1 :Life Insurance documents : Meaning and Importance of LIC documents, Conditions regarding loss of life insurance policy and Indemnity bond
- 2.2 :Documents for taking out life insurance policy : Proposal form, Medical Examination Report, Agent's Confidential Report, Proof of Age, First premium receipt (Cover note), Renewal Premium Receipt Life Insurance Policy
- 2.3 :Documents for settlement of claim : Death Certificate, Police Inquest Report, Coroner's Report, Deed of Assignment, Claim for Discharge form
- 2.4 :Progress of life Insurance in India since privatization(15 Periods)

Unit III: - Claim Management in Life Insurance

- 3.1 : Claim Management: Meaning, Need, Classifications of claims : Death claim, Maturity claim, Early claims, Time- barred claims
 - 3.2 :Claim management procedure and system for different types of claim,
 - 3.3 :Calculation of claim, Claim concessions, Presumption of death, Accident and Disability benefits
 - 3.4 : Importance of investigation in claim management.
- (15periods)**

Unit IV: - Life Insurance Legislation & FDI in Life Insurance Sector :

- 4.1 : Important provisions of Life Insurance Corporation Act 1956,
 - 4.2 :Evolution of Insurance Regulatory and Development Authority (IRDA) of India Act.1999 and important provisions
 - 4.3 :Ombudsman in Life Insurance : Meaning, function and role in grievance redressal
 - 4.4 :Foreign Direct Investment in Life Insurance Sector : Advantages and disadvantages
- (15periods)**

Practical :

- (i) Interact with the life insurance agent and understand his /her role
- (ii) Visit the nearest LIC office and collect the information about settlements of claims and settlement rate

Reference Books for Paper No. I to IV

- 1. Insurance Principles and Practice – M.N. Mishra and S.B.Mishra, S. Chand and Co. NewDelhi
- 2. Principles and Practice of Insurance – M. Motihar, ShardaPustakBhavan, Allhabad
- 3. Principles of Risk Management and Insurance – Dr. Neelam C. Gulati,Excel Books, NewDelhi

4. Theory and practice of Insurance – M. Arif Khan, Taj Printing Works ,Aligarh
5. Risk Management in Banking and Insurance- S.B. Verma, Y .Uppadhyay, R.K. Shrivastawa, Deep and Deep Publications Pvt.Ltd
6. Insurance Principles and Practice – M.N. Mishra, S. Chand and Co. NewDelhi
7. Insurance Theory and practice – NaliniPravaTripathy, Prabir Pal, PHI Learning Pvt Ltd NewDelhi
8. Insurance and Risk Management – Dr. P.K.Gupta, Himalaya PublishingHouse
9. Insurance Meaning and Its Principles – B.D.Bhargava, Pearl Books NewDelhi
10. Insurance Law And Practice – C.L.Tyagi, MadhuTyagi, Atlantic Publishers and Distributors Pvt Ltd
11. General Insurance - S. Balachandran, Insurance Institute of IndiaMumbai
12. Life Insurance - S. Balachandran, Insurance Institute of IndiaMumbai

B.Com –III Semester – VI
Paper – IV : DSE-F4 : Insurance
(Marine and Other Insurance)

Objectives

- i) To expose the students to the principles, types and conditions of Marine Insurance
- ii) To familiarize the students with various documents and legislative provisions of Marine Insurance.
- iii) To acquaint the student to various types of Miscellaneous Insurance

Unit I: - Marine Insurance :

- 1.1 : Marine Insurance : Evolution, Meaning & Definition, Classification, Principles
- 1.2 : Clauses of Marine Insurance Policy, Warranties: Implied & Expressed Warranties
- 1.3 : Types of Marine Insurance Policy
- 1.4 : Procedure for taking Marine Insurance Policy, Payment of claim periods) (15)

Unit II :- Marine Losses and Perils :

- 2.1 : Marine Losses : Total loss, Partial Loss, Particular Average Loss, General Average Loss
- 2.2 : Difference between Particular Average Loss & General Average Loss - Salvage Charges – Preparation of loss statement
- 2.3 : Marine Perils
- 2.4 : Progress of Marine Insurance business in India. (15 periods)

Unit III :- Other Insurance (Only Nature & Cover)

- 3.1 : Burglary Insurance, Engineering Insurance
- 3.2 : Crop Insurance, Cattle Insurance
- 3.3 : Sports Insurance, Catastrophe Insurance
- 3.4 : Aviation Insurance, Export Risk Insurance (15 periods)

Unit IV :- Documentation and Legislation :-

- 4.1 : Documents in Marine Insurance - Proposal Form, Survey Report, Cover Note, Policy, Endorsement, Renewal Notice, Claim Form, Bill of Lading, Letter of Subrogation, Copy of Protest.
- 4.2 : Important Provisions of Marine Insurance Act 1963
- 4.3 : Insurance Regulatory and Development Authority Act 1999
- 4.4 : Foreign Direct Investment in General Insurance Sector (15 periods)

Practical

- i) Obtain the documents used in marine insurance by visiting nearest branch office of General Insurance Corporation, analyze them and prepare the report.
- ii) Obtain the bare Act of IRDA Act 1999 and study its provisions

Reference Books for Paper No. I to IV

1. Insurance Principles and Practice – M.N. Mishra and S.B.Mishra, S. Chand and Co. NewDelhi
2. Principles and Practice of Insurance – M. Motihar, ShardaPustakBhavan, Allhabad
3. Principles of Risk Management and Insurance – Dr. Neelam C. Gulati,Excel Books, NewDelhi
4. Theory and practice of Insurance – M. Arif Khan, Taj Printing Works ,Aligarh
5. Risk Management in Banking and Insurance- S.B. Verma, Y .Uppadhyay, R.K. Shrivasaatawa, Deep and Deep Publications Pvt.Ltd
6. Insurance Principles and Practice – M.N. Mishra, S. Chand and Co. NewDelhi
7. Insurance Theory and practice – NaliniPravaTripathy, Prabir Pal, PHI Learning Pvt Ltd NewDelhi
8. Insurance and Risk Management – Dr. P.K.Gupta, Himalaya PublishingHouse
9. Insurance Meaning and Its Principles – B.D.Bhargava, Pearl Books NewDelhi
10. Insurance Law And Practice – C.L.Tyagi, MadhuTyagi, Atlantic Publishers and Distributers Pvt Ltd
11. General Insurance - S. Balachandran, Insurance Institute of IndiaMumbai
12. Life Insurance - S. Balachandran, Insurance Institute of IndiaMumbai

B.Com.III
Semester V and VI (CBCS Pattern)
Insurance Paper I to IV
Nature of Question Paper

Instructions:

Total Marks: 50

1. All questions carry equal marks
2. Attempt any five questions out of seven

Q.1	Write Short Answers (Any two out of three)	10 Marks
Q.2	Broad Question	10 Marks
Q.3	Broad Question	10 Marks
Q.4	Broad Question	10 Marks
Q.5	Broad Question	10 Marks
Q.6	Broad Question	10 Marks
Q.7	Write Short Notes (Any two out of three)	10 Marks

Equivalence

Sr.No.	Old Name	New Name
1	Insurance Paper - I	Insurance Paper - I
2	Insurance Paper - II	Insurance Paper - II
3	Insurance Paper - III	Insurance Paper - III
4	Insurance Paper - IV	Insurance Paper - IV

B. Com Part III
(CBCS Pattern- 2020-21)
ADVANCED MARKETING

<i>Semester</i>	<i>Paper</i>	<i>Name of Course</i>
Semester V	Paper I	Introduction to Marketing
	Paper II	Marketing Management
Semester VI	Paper III	Service Marketing
	Paper IV	Recent Trends in Marketing Management

B. Com Part III Semester V
Paper I : DSE-G1 : INTRODUCTION TO MARKETING

Course Outcomes:

- iii) To acquaint the students with the basics and advance marketing concepts and its procedure
- iv) To familiarize the students with Marketing Environment and Consumer Buying Behaviour.

Unit	Course Contents	Hours
Unit 1	Introduction to Marketing: Meaning and Nature of Marketing, Evolution of Marketing Concept, Importance and Functions of Marketing, Objectives and Process of Marketing <i>Practical: Writing marketing process of any particular product</i>	15
Unit 2	Modern Marketing: Difference between Selling and Marketing, Changing Concepts of Marketing, Features of Modern Marketing Concept, Role of Marketing in Economic Development, Relation of Marketing with other functional areas of business. Types of Marketing Organisation <i>Practical: Study of relation of marketing department with other departments of any business organisation</i>	15
Unit 3	Marketing Environment and Marketing System: Micro and Macro Marketing Environment, Forces in Marketing, Environmental Scanning and Analysis, Mapping the Marketing Environment, Marketing System <i>Practical: Scanning and Analysis of Marketing Environment of any nearest business organisation.</i>	15
Unit 4	Consumer Behaviour: Concept of Consumer Behaviour, Need for understanding Consumer Behaviour, Consumer Decision Behaviour, Factors influencing Consumer Buying Behaviour, Buying Motives of Consumers, Consumer Buying Decision Process <i>Practical: Observing and reporting consumer behaviour at any departmental store or vegetable market or weekly bazaar.</i>	15

B. Com Part III Semester V
Paper II :DSE-G2 : MARKETING MANAGEMENT

Course Outcomes:

- iii) To familiarize the student with conceptual Marketing Management, its functions and role of Marketing Manager
- iv) To expose the students to the understand the Market Segmentation and Marketing Mix

Unit	Course Contents	Hours
Unit 1	Marketing Management Meaning and Nature of Marketing Management, Functions of Marketing Management, Role of Marketing Manager, Qualities of Marketing Manager <i>Practical: Draft a report after discussion with marketing manager of any nearest company.</i>	15
Unit 2	Marketing Planning: Meaning, Significance and Process of Marketing Planning, Structure of Marketing Plan, Strategic Marketing Planning – Meaning and Process, Competitive Marketing Strategies <i>Practical: Preparation of marketing plan for any product</i>	15
Unit 3	Market Segmentation and Marketing Mix Concept of Market Segmentation, Requirements of Effective Segmentation, Benefits of Market Segmentation, Methods of Marketing Segmentation, Patterns of Segmentation. Marketing Mix: Meaning, Importance and Elements of Marketing Mix, Determining the Marketing Mix, Factors affecting the Marketing Mix <i>Practical: Preparation of marketing mix of any business organisation producing different products.</i>	15
Unit 4	Management of Marketing Mix: a) Product Mix: Concept of Product, Product Planning – Significance and factors affecting the Product Planning, b) Price Mix: Significance of Price in Marketing, Objectives of Pricing, Factors affecting Price, Kinds of Pricing Decisions c) Promotion Mix: Meaning, Objectives and Methods of Promotion d) Place (Distribution) Mix: Meaning and Importance of Distribution Channels, Distribution Policies and Strategies <i>Practical: Visit to nearest 5 shops for collection of information about any of the above four factors.</i>	15

B. Com Part III Semester VI
Paper III : DSE-G3 : SERVICE MARKETING

Course Outcomes:

1. To provide the sound understanding to the student about of various sectors of service marketing.
2. To acquaint the students with the Service marketing strategy and Supply Chain Management:

Unit	Course Contents	Hours
Unit 1	<p>Marketing of Service: Introduction, definition, characteristics of services (Intangibility, Inseparability, Heterogeneity, Perishability). Importance of services, distinction between services and goods, Marketing Mix in Service Marketing- Product price, place, Promoting, Service encounters service, personnel issues, emotions and service situations, service profit chain, service recovery and empowerment. Practical- Study and prepare chart of various service marketing sectors and share it in the class.</p>	15
Unit 2	<p>Services Marketing Strategy: Overview of Service Marketing Strategy – Concept and Objectives. Strategic Role of Service Marketing. Formulating and implementing Service marketing strategy. Services Strategies- Strategies for Market Leaders, challengers, followers and niche marketers. Practical- Visit different service organizations and prepare innovative strategies for promoting service marketing.</p>	15
Unit 3	<p>Logistics & Supply Chain Management: Definition and scope of logistics, key logistics activities, market logistics decision, emerging concepts in logistics. Concept of supply chain management (SCM), need for SCM, advances in SCM. Distribution: 6 C's of distribution. Selection and appointing distributors. Practical- Study the logistic and supply chain management of the company's dealer working for. Prepare report and share in the class.</p>	15
Unit 4	<p>Marketing Service Sectors: Concept, Characteristics and strategies for different services- Banking, Insurance, Hotel, transport, tourism and consultancy services Service Quality- Customer Expectations and Perceptions Practical- Prepare a marketing report by visiting service organization situated to your local area.</p>	15

B. Com Part III Semester VI

Paper IV :DSE-G4 : RECENT TRENDS IN MARKETING MANAGEMENT

Course Outcomes:

- iv) To provide the students regarding conceptual information on recent trends in marketing management
- v) To acquaint the student with concept of MIS, CRM and Green Marketing
- vi) To familiarize the students with Retail marketing, Agricultural marketing and International marketing.

Unit	Course Contents	Hours
Unit 1	Marketing Information System (MIS) and Green Marketing: Marketing Information System -Meaning, definition, Characteristics, scope & procedure MIS. Requirement of Good MIS, Importance of MIS Green Marketing - Meaning and importance issues involved in green marketing- social responsibility, pressure of government, competitive pressure cost of profit. Problems of green marketing. Green marketing strategies. Practical - Visit to nearest corporate /super market and write the MIS and Green Marketing structure by observing the same.	15
Unit 2	Customer Relationship Management & Retail Marketing: Customer Relationship Management (CRM) -concept, CRM process, measuring CRM, CRM framework, Tangible Components of CRM, CRM in services, CRM in product management, Zero customer defection, customer loyalty, and customer loyalty development strategies. Retail Marketing: Introduction to retail, Factors behind the change of Indian Retailing industry- Economic growth, Classification of retailers: Store and Non-store based retailers, Organised and Unorganised Retailing, business models in retail. Careers in Retailing: Employment opportunities, ownership opportunity. Practical - Visit Big Bazar/ Departmental store and prepare a report on CRM and retail marketing for ascertaining the career opportunity in it.	15
Unit 3	Agricultural Marketing: Meaning and scope of agricultural marketing-Market structure, factors influencing marketable surplus. Estimation of marketable and marketed surplus. New trends in agricultural marketing: APEDA, NAFED- Characteristics of a good agricultural marketing system- Promotion of agricultural products. Practical - Study the nearest APMC functions and prepare report to share in the class.	15
Unit 4	International Marketing: Concept of International Marketing and its Environment, Entry Strategies, International organization, Export	

	<p>procedure & documents, Global Strategies, targeting and Positioning, International Marketing mix- Product Design Decisions, Geographic expansion strategic alternatives, New product in Global Market, Global Pricing Strategies, Channel Objectives and constraints, Channel Structure, Advertising decisions in International marketing.</p> <p>Practical- Study the concepts of international marketing and understand the export procedure & documents.</p>	15
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Reference Books:

1. *The Essence of Marketing-* Majaro, Simon. Perentice Hall, New Delhi
2. *Sales Management: Decision, Strategies and Cases-* R. R. Still , E.W. Cundiff , N.A.P. Govani, Pearson Education
3. *Sales and Distribution Management –* K.K. Havaldar, V.M. Cavale, Tata McGraw Hill Company
4. *Professional Sales Management -*Anderson, Hair and Bush, McGraw Hill Company
5. *Sales Management –* Rustom Davar
6. *Marketing Management-* Kotler, Keller, Koshy, Jha, Prentice Hall.
7. *Marketing Management -* Ramaswamy, Namakumari, McGraw Hill Education
8. *Consumer Behaviour –* Schiffman and Kanuk , Pearson Publication
9. *Marketing Management-Pilai, Bhagavati and Kala-* S. Chand & Co. Ltd New Delhi
10. *Consumer Behaviour –* David Loudon and Albert Della Bitta., Tata McGraw-Hill.
11. *Marketing Management-* William Stanton.
12. *Marketing Management-* Philip Kotlar.
13. *Marketing Management – a south Asian perspective: Kotler Phillip, Keller Kevin Lane, Koshy Abraham and Jha Mithileshwar, Pearson.*
14. *Marketing Management –* Ramswamy V. S., Namakumari S., Macmillan Publishers India Ltd.
15. *Marketing Management –* Rajan Saxena, Tata McGraw Hill
16. *Marketing Management: Text and Cases –* Tapan Panda, Excel Books
17. *Marketing –* Etzel, Walker B., Stanton W., Pandit A., Tata McGraw Hill.
18. *Marketing Management -* Karunakarn K — Himalaya Publication, New Delhi.

B.Com. Part-III; SEM-V (CBCS)**Paper-I : DSE-H1 : Advanced Banking (Banking Laws in India)**

Credits : 4

Course Outcomes:

1. Learners will be able to explain Regulatory Framework for Banking in India
2. Learners will understand the important laws relating banking sector
3. Learners will apply the knowledge of legal provisions for banking business practices
4. Learners will understand different provisions under cyber Laws

Expected Skills Impartation

4. Ability to apply legal provisions in banking business
5. Ability to understand the legal applications in banking sector
6. Ability to conduct proper banking activities as per legal provisions

Unit No.	Unit Name	Periods
1	Banking Laws 1.1. Need and Importance of Banking Laws 1.2. Banking Regulation Act 1949 1.3. New Bank Licensing Policy, 2013 1.4. Provisions for opening and closing of bank branches in India,	15
2	Banking Laws relating to Cooperative Banks 2.1. Co-operative Societies Act, 1912 2.2. Maharashtra Co-operative Societies Act, 1960 2.3. Multi State Co-operative Societies Act, 2002 2.4. Employees Cooperative Credit Societies- Model Bye-laws in Maharashtra	15
3	The Negotiable Instrument Act, 1881 and Amendments 3.1. Meaning, Types, Features and Parties of Bill of Exchange 3.2. Meaning, Features and Parties of Promissory Note 3.3. Meaning, Types, Features and Parties of Cheque 3.4. Protection to a Paying Banker and Collecting Banker	15
4	Other Laws Relating to Banking 4.1. Important Provisions under Indian Contract Act, 1872 4.2. Garnishee Order-Meaning, Steps and Execution of Garnishee Order 4.3. Mortgage of Immovable Properties and Its Types 4.4. Banking Ombudsman Scheme 2006	15

References :

1. Arora and Kalra (1999), "All India Banking Law Digest, (1995-1999), Law House Delhi
2. Employees Cooperative Credit Societies - <https://sahakarayukta.maharashtra.gov.in>
3. ICSI (2015) Banking Law And Practice, <https://www.icsi.edu>
4. IIBF(2007), "Laws of Co-operative Banking", MacMillan India Ltd.,
5. M.L. Tannan, (2008) Banking Law and Practice in India, India Law House, New Delhi
6. M.L.Tannan, C.R. Datta & S.K. Kataria (2011) Banking Law and Practice, Wadhwa & Company
7. Maharashtra Co-operative Societies Act, 1960 <https://sahakarayukta.maharashtra.gov.in>

8. Multi State Co-operative Societies Act,2002 <https://mscs.dac.gov.in/Guidelines/GuidelineAct2002.pdf>
9. RBI (2019) Rationalisation of Branch Authorisation Policy- Revision of Guidelines <https://rbi.org.in/scripts/NotificationUser.aspx/Mode=0&Id=11570>
10. Sudhir Naib, The Information Technology Act, 2005: A Handbook, OUP, New York, (2011)
11. Tannan (2001), “Banking Law & Practice in India” 20/e (Stud. ed), Law House Delhi

B.Com. Part-III; SEM-V (CBCS)

Paper-II : DSE-H2 : Advanced Banking (Retail and Corporate Banking)

Credits : 4

Course Outcomes:

1. Learners will be able to explain Retail and Corporate Banking systems
2. Learners will understand the Retail and Corporate Banking Practices
3. Learners will apply the knowledge in banking business

Expected Skills Impartation

1. Ability to differentiate Retail and Corporate Banking
2. Ability to conduct Retail Banking business
3. Ability to conduct Corporate Banking business

Unit No.	Unit Name	Periods
1	Introduction to Retail Banking 1.1. History, definition and concept of Retail Banking and Corporate Banking 1.2. Difference between Retail banking and Corporate banking 1.3. Importance of Retail banking to Indian Economy 1.4. Changing scenario of Retail Banking in India	15
2	Retail Banking Products 2.1. Home Loan - Types, Margin and Process of disbursement 2.2. Vehicle Loan - Types, Margin and Process of disbursement 2.3. Gold Loan - Nature and Process of disbursement 2.4. Educational - Nature and Process of disbursement	15
3	Corporate Banking 3.1. Need and Importance of Corporate Banking 3.2. Factoring and Forfeiting services 3.3. Infrastructure Finance Companies in India 3.4. Nature and Importance of Import-Export Finance.	15
4	Investment Banking 4.1. Meaning, Evolution and Scope of Investment Banking. 4.2. Meaning and Functions of Merchant Banking 4.3. Meaning and Nature of Venture Capital 4.4. Meaning and Importance of Loan Syndications.	15

References :

1. Indian Institute of Banking and finance (IIBF) (2015) Banking Products and Services, M/s Taxman

Publications Pvt. Ltd

2. Leichtfuss, Reinhold (2003) Achieving Excellence in Retail Banking, John Wiley and sons.
3. Indian Institute of Banking and finance IIBF (2010) International Banking, M/s Macmillan India Limited,
4. Mathav S B. (2013) Financial Management Mac-Millan Publications.
5. Yadhav S. S. (2014) Foreign Exchange Markets (Latest Edition) Mac-Millan Publications.
6. Indian Institute of Banking & finance (2018) Corporate Banking. Mac-Millan Publications.
7. Indian Institute of Banking and finance IIBF (2016)– International Corporate Finance. Mac-Millan Publications.
8. Pratap Giri S. (2017). Investment Banking: Concepts, Analyses and Cases, McGraw-Hill Education.
9. Subramanyam. (2017). Investment Banking: Concepts, Analyses and Cases, McGraw-Hill Education.
10. Ramamurthy Natarajan (2016). Corporate Banking: A Guide Book for Novice, Create Space Independent Publishing Platform.
11. Vikas Srivastava (2017) Project and Infrastructure Finance: Corporate Banking Perspective, Oxford University Press.

B.Com. Part-III; SEM-VI (CBCS)

Paper-IV : DSE-H4 : Advanced Banking (Financial Markets and Services)

Credits : 4

Course Outcomes:

1. Learners will be able to understand the nature and structure of Financial Market in India
2. Learners will understand business practices in money market and capital market
3. Learners will understand functioning of different Intermediaries in Financial Markets

Expected Skills Impartation

1. Ability to understand the procedure of security trading
2. Ability to apply knowledge for security trading
3. Ability to conduct security trading business

Unit No.	Unit Name	Periods
1	Introduction to Financial Markets in India 1.1. Structure of Financial System in India 1.2. Meaning and Role of Financial Markets in Economics Development 1.3. Structure of Capital Market - Primary and Secondary Capital Market 1.4. Instruments used in Indian Capital Market	15
2	Money Market and Capital Market 2.1. Meaning, Structure and Features of Money Market in India 2.2. Meaning, Structure and Features of Capital Market in India 2.3. Important Intermediaries - Banks, NBFCs and Other 2.4. Financial Instruments of Capital Market in India	15
3	Capital Market Operations 3.1 IPO - Meaning, Nature and Grading of IPO 3.2 Pricing of IPO - Fixed Price Issue and Book Building	15

	3.3 BSE and NSE - History, Management and Indices - Listing of Securities 3.4 Market Orders - Types of Orders for Selling and Buying of Stocks	
4	Intermediaries in Financial Markets 4.1. Role of Depository Organization- CDSL and NSDL 4.2. Indian Clearing Corporation Limited (ICCL) 4.3. Credit Rating Agencies- Functions, Institutes and their Rating Symbols 4.4. Programmes and Certifications of BSE Institute Ltd and NSE Academy	15
References : <ol style="list-style-type: none"> 1. Bhole I.M. (2009). Financial Institutions and Market, 5th edition, 2nd reprint in 2009 Tata McGraw Hill. 2. Benson Kunjukunju Et Al. (2012). Financial Markets and Financial Services in India, New Century Publication, New Delhi. 3. Preeti Singh (2016). Investment Management, Himalaya Publishing House Pvt. Ltd., 4. Pawan Jhabak (2016). Securities Analysis and Portfolio Management, Himalaya Publishing House Pvt. Ltd., 5. Avadhani V.A. (2016). Security Analysis & Investment Management, Himalaya Publishing House Pvt. Ltd., 6. Avadhani V.A. (2016). Securities Analysis and Portfolio Management, Himalaya Publishing House Pvt. Ltd., 7. Braam van den Berg (2015). Understanding Financial Markets & Instruments Academy of Financial Market, https://eagletraders.com/books/afm/afm4.php 8. NSE (2015), Securities Market (Basic) Module, NCFM, National Stock Exchange Of India Limited 9. Michael K. (2002). Credit Rating Methodology, http://www.psnacet.edu.in/courses/MBA/Financial%20services/17.pdf 10. Issue Management, http://www.psnacet.edu.in/courses/MBA/Financial%20services/13.pdf 11. ICCL https://www.icclindia.com 12. BSE Institute Ltd http://www.bsebti.com/ 13. NSE Academy - https://www.nseindia.com/education/content/about_ncfm.htm 		

B.Com. Part-III; SEM-VI (CBCS)**Paper-III : DSE-H3 : Advanced Banking (Bank Management Practices)**

Credits : 4

Course Outcomes:

1. Learners will be able to understand the nature and structure of Financial Market in India
2. Learners will understand business practices in money market and capital market
3. Learners will understand functioning of different Intermediaries in Financial Markets

Expected Skills Impartation

1. Ability to understand the procedure of security trading
2. Ability to apply knowledge for security trading
3. Ability to conduct security trading business

Unit No.	Unit Name	Periods
1	Administrative Structure of Head Office 1.1. Importance of Head Office of the Bank 1.2. Administrative Structure of Head Office 1.3. Departments in Head Office and Its Functions 1.4. Duties and Responsibilities of CEO /MD	15
2	Regional / Zonal Offices of the Bank 2.1. Importance of Regional / Zonal Offices of the Bank 2.2. Administrative Structure of Regional/ Zonal Offices 2.3. Functions and Role of Regional / Zonal Offices 2.4. Duties and Responsibilities of Regional/ Zonal Manager	15
3	Bank Branch Management 3.1. Structure of Branch Office - Small, Medium and Large Bank Branch 3.2. Duties and Responsibilities of Officer Incharge of Deposit Section 3.3. Duties and Responsibilities of Loan and Recovery Officer 3.4. Duties and Responsibilities of Cashier & Role of Branch Manager	15
4	Banking Business Practices 4.1. Principles of Banking Business and Its Importance 4.2. Investment Policy of the Bank- SLR and Non-SLR Investment 4.3. Nature and Importance of Internal and Statutory Audit of the Banks 4.4. Nature and Importance of Information and System Audit of the Banks	15

References :

1. George H. Hempel, Donald G. Simonson (2018). Bank Management: Text and Cases, Wiley, 2020 ISBN 0471410918
2. IIBF (2005). General Bank Management : (For Caiib Examinations), Indian Institute of Banking and Finance, Macmillan, 2005
3. Kanhaiya Singh (2013). Commercial Bank Management, Tata McGraw-Hill Education.
4. Peter S. Rose, Sylvia C. Hudgins (2008). Bank Management and Financial Services, McGraw-Hill Education.
5. Timothy W. Koch, S. Scott MacDonald (2014). Bank Management, Cengage Learning.
6. Timothy W. Koch, Steven Scott MacDonald, Vic Edwards, Randall E. Duran (2014). Bank Management: A Decision-Making Perspective, CENGAGE Learning Asia.
7. V.S.P. Rao (1999). Bank Management, Discovery Publishing House, 1999 ISBN 8171415105
8. Guidance Note on Audit of Banks (2018 Edition)- <https://www.puneicai.org/wp-content/uploads/Guidance->

Note-on-Audit-of-Banks-2018-Edition.pdf

9. Chitale MM (2018) Bank Audit - Bombay Chartered Accountants' Society-

<https://www.bcasonline.org/ContentType/3.%20MChitale.pdf>

10. RBI (2018) Checklists for Computer Audit, <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/33400.pdf>

11. Shiva Chaudhari (2017) A Guide to Risk Based Internal Audit System in Banks, Notion Press.

EQUIVALENCE OF THE PAPERS / COURSES

Sr.	Existing title of the Paper	Revised Title of the paper
1	Advanced Banking Paper – I	Advanced Banking P-I (Banking Laws in India)
2	Advanced Banking Paper – II	Advanced Banking P-II (Retail and Corporate Banking)
3	Advanced Banking Paper P-III	Advanced Banking P-III (Bank Management Practices)
4	Advanced Banking Paper P-IV	Advanced Banking P-IV (Financial Markets and Services)

Nature of question paper for B.Com -III Advanced Banking

Semester V & VI (Paper No. I to IV)

Attempt any five questions.

Total marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com. Part-III Semester – V
Paper – I : DSE-I-1 : Rural Economics and Co-operation
(Optional Paper)

Course Outcomes:

1. Learners will be able to understand Rural Economy in India.
2. Learners will understand the correlation between Agriculture and Rural Development.
3. Learners will understand Agricultural productivity in India.
4. Learners will understand Role of Co-operation in Rural Development.

Unit I: - Rural Economy of India

(15 Periods)

- 1.1 Rural Economy: Concept, nature and features
- 1.2 Importance of Rural Economy
- 1.3 Indicators of Rural Development
- 1.4 Problems of Rural Economy

Unit II:- Agriculture Sector and Rural Development

(15 Periods)

- 2.1 Agriculture and Economic Growth
- 2.2 Peculiar Features of Indian Agriculture
- 2.3 Importance of Agriculture in Rural Development
- 2.4 Risk and Uncertainty in Indian Agriculture

Unit III: - Agricultural Productivity in India

(15 Periods)

- 3.1 Agricultural Productivity: Meaning, types and determinants
- 3.2 Indian Agricultural Productivity
- 3.3 Causes of Low Agricultural Productivity
- 3.4 Measures to improve the Agricultural Productivity

Unit IV: - Introduction to Co-operation

(15 Periods)

- 4.1 Co-operation: Meaning, definition and features
- 4.2 Principles of Co-operation (Manchester-1995)
- 4.3 Role of Co-operation in Rural Development
- 4.4 Issues in Cooperative Movement

References:

- i) Misra S. K. and V. K. Puri, Indian Economy, Himalaya Publishing Bombay (Latest edition)
- ii) Dutt R. and K.P.M. Sundharam, Indian Economy, S. Chand and Company, New Delhi
- iii) R.K.Lekhi and Joginder Singh, Agricultural Economics, Kalyani Publishers, New Delhi
- iv) K.V. Patel , A.C. Shah and L.D. Mello , Rural Economics, Himalaya Publishing Bombay
- v) S.S.Shejal, Impact of Agri based Industries on Rural Economy ABS Publication, Varanasi
- vi) T.N.Hajela, Co-Operation, Ane Book Pvt. Ltd. New Delhi
- vii) Vijay Kavimandan, Agricultural and Rural Economics (Marathi) Shri. Mangesh Prakashan Nagapur
- viii) C.B.Mamoria, Agricultural problems in India, Kitab Mahal New Delhi
- ix) Vasant Desai, Rural Economics, Himalaya Publishing Bombay

B.COM. Part - III Semester - V
(Optional Paper)
Paper – II : DSE-I-2 : Rural Economics and Co-operation

Course Outcomes:-

Student will be able to explain –

1. Awareness among the students regarding Rural Industrialization in India.
2. Agro based industries and small scale industries in India.
3. Non-credit co-operation and Rural Indebtedness in India.

Unit I - Rural Industrialization in India (15 Periods)

- 1.1 Need and concept of Rural Industrialization
- 1.2 Importance and problems of Agro-based Industries
- 1.3 Sugar Industry: Importance and problems
- 1.4 Dairy Industry: Importance and problems

Unit II- Cottage and Small-Scale Industries in India (15 Periods)

- 2.1 Meaning, features and difference between cottage and small-scale Industries
- 2.2 Role of Cottage and Small-Scale Industries.
- 2.3 Problems of cottage and Small-Scale Industries.
- 2.4 Government policy towards cottage and Small-Scale Industries

Unit III - Rural Indebtedness in India (15 Periods)

- 3.1 Meaning and nature of Rural Indebtedness.
- 3.2 Extent of rural indebtedness
- 3.3 Causes and effects of rural Indebtedness
- 3.4 Government measures to reduce rural indebtedness

Unit IV - Non-Credit Co-operatives in India (15 Periods)

- 4.1 Industrial Co-operatives: Types, functions and problems
- 4.2 Labour Co-operatives: Meaning, functions and problems
- 4.3 Consumers Co-operative: Types, functions and problems
- 4.4 Housing Co-operatives: Types, functions and problems

References:

- i) Misra S. K. and V. K. Puri, Indian Economy, Himalaya Publishing Bombay (Latest edition)
- ii) Dutt R. and K.P.M. Sundharam, Indian Economy, S. Chand and Company, New Delhi
- iii) R.K.Lekhi and Joginder Singh, Agricultural Economics, Kalyani Publishers, New Delhi
- iv) K.V. Patel , A.C. Shah and L.D. Mello , Rural Economics, Himalaya Publishing Bombay
- v) S.S.Shejal, Impact of Agri based Industries on Rural Economy ABS Publication, Varanasi
- vi) T.N.Hajela, Co-Operation, Ane Book Pvt. Ltd. New Delhi
- vii) Vijay Kavimandan, Agricultural and Rural Economics (Marathi) Shri. Mangesh Prakashan Nagapur
- viii) C.B.Mamoria, Agricultural problems in India, Kitab Mahal New Delhi
- ix) Vasant Desai, Rural Economics, Himalaya Publishing Bombay

B.Com. Part- III Semester – VI
Paper – III : DSE-I 3 : Rural Economics and Co-operation
(Optional Paper)

Course Outcomes:-

After completion of this course, the student will be able to-

1. Explain the rural resources in India.
2. Identify the problem of rural unemployment.
3. Understand the rural finance and agricultural co-operatives in India.

Unit I - Rural Resources in India

(15 Periods)

- 1.1 Livestock: Concept, present status, importance and problems.
- 1.2 Poultry: Present status, importance and problems.
- 1.3 Fishery: Sources, present status, problems.
- 1.4 Forest Resources and forestry: Features and importance, social forestry.

Unit II - Rural unemployment in India

(15 Periods)

- 2.1 Rural unemployment: meaning and nature
- 2.2 Types of rural unemployment
- 2.3 Causes of rural unemployment
- 2.4 Government programmes to reduce rural unemployment

Unit III - Rural Finance in India

(15 Periods)

- 3.1 Need and sources of rural finance
- 3.2 Nationalized commercial banks
- 3.3 Regional Rural Banks
- 3.4 National Bank for Agriculture and Rural Development (NABARD)

Unit IV- Agricultural Co-operatives in India

(15 Periods)

- 4.1 Co-operative farming: Types, problems and remedies
- 4.2 Co-operative Processing: Problems and remedies
- 4.3 Co-operative Marketing: Objectives, functions and problems
- 4.4 National Agricultural Co-operative Marketing Federation (NAFED): Functions and problems.

References:

- i) Misra S. K. and V. K. Puri, Indian Economy, Himalaya Publishing Bombay (Latest edition)
- ii) Dutt R. and K.P.M. Sundharam, Indian Economy, S. Chand and Company, New Delhi
- iii) R.K.Lekhi and Joginder Singh, Agricultural Economics, Kalyani Publishers, New Delhi
- iv) K.V. Patel , A.C. Shah and L.D. Mello , Rural Economics, Himalaya Publishing Bombay
- v) S.S.Shejal, Impact of Agri based Industries on Rural Economy ABS Publication, Varanasi
- vi) T.N.Hajela, Co-Operation, Ane Book Pvt. Ltd. New Delhi
- vii) Vijay Kavimandan, Agricultural and Rural Economics (Marathi) Shri. Mangesh Prakashan Nagapur
- viii) C.B.Mamoria, Agricultural problems in India, Kitab Mahal New Delhi
- ix) Vasant Desai, Rural Economics, Himalaya Publishing Bombay

B.Com. Part-III Semester – VI
Paper – IV : DSE- I 4 : Rural Economics and Co-operation
(Optional Paper)

Course Outcomes:-

After completion of this course, the student will be able to-

1. Understand rural infrastructure in India.
2. Explain rural poverty, food problem and food security in India.
3. Understand co-operative financial institutions in India.

Unit I - Rural Infrastructure in India (15 Periods)

- 1.1 Importance of infrastructure in rural development
- 1.2 Rural Electrification: Progress and problems
- 1.3 Irrigation facilities: Types, sources, progress and problems.
- 1.4 Transportation and Communication: Types, importance and problems.

Unit II - Rural Poverty in India (15 Periods)

- 2.1 Concept and types of rural poverty
- 2.2 Incidence of rural poverty
- 2.3 Causes of rural poverty
- 2.4 Poverty Alleviation Programmes

Unit III - Food Problem and Food Security in India (15 Periods)

- 3.1 Food problem: Different aspects of food problem.
- 3.2 Food Security: Meaning, definition and nature
- 3.3 Factors in Food Security
- 3.4 Remedies of Food Security

Unit IV - Co-operative Finance in India (15 Periods)

- 4.1 Meaning, Structure and Importance of Co-operative Finance.
- 4.2 Primary Agriculture Co-operative Credit Society: Functions and problems
- 4.3 District Central Co-operative Banks: Functions and problems
- 4.4 State Co-operative Banks: Functions and problems

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References:

- i) Misra S. K. and V. K. Puri, Indian Economy, Himalaya Publishing Bombay (Latest edition)
- ii) Dutt R. and K.P.M. Sundharam, Indian Economy, S. Chand and Company, New Delhi
- iii) R.K.Lekhi and Joginder Singh, Agricultural Economics, Kalyani Publishers, New Delhi
- iv) K.V. Patel , A.C. Shah and L.D. Mello , Rural Economics, Himalaya Publishing Bombay
- v) S.S.Shejal, Impact of Agri based Industries on Rural Economy ABS Publication, Varanasi
- vi) T.N.Hajela, Co-Operation, Ane Book Pvt. Ltd. New Delhi
- vii) Vijay Kavimandan, Agricultural and Rural Economics (Marathi) Shri. Mangesh Prakashan Nagapur
- viii) C.B.Mamoria, Agricultural problems in India, Kitab Mahal New Delhi
- ix) Vasant Desai, Rural Economics, Himalaya Publishing Bombay

EQUIVALENCE OF THE PAPERS / COURSES

Sr.	Existing title of the Paper	Revised Title of the paper
1	Rural Eco. & Co-operation (Optional) Paper -I	Rural Eco. & Co-operation (Optional) Paper -I
2	Rural Eco. & Co-operation (Optional) Paper- II	Rural Eco. & Co-operation (Optional) Paper- II
3	Rural Eco. & Co-operation (Optional) Paper -III	Rural Eco. & Co-operation (Optional) Paper -III
4	Rural Eco. & Co-operation (Optional) Paper -IV	Rural Eco. & Co-operation (Optional) Paper -IV

Nature of Question Paper for B.Com. - III
Subject- Rural Economics and Co-operation

Semester V and VI (Paper No. I to IV)

Attempt any five questions

Total Marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com. Part-III- SEM-V (CBCS)
Paper I : DSE-J 1 : Advanced Statistics
(Mathematical Methods)
(Optional Paper)
Credit -4

Course Outcomes:

After completion of this course, students will be able to:

1. Evaluate a determinant.
2. Obtain the inverse of a matrix using different methods.
3. Explain the use of permutation and combination.
4. Explain the Binomial theorem and its expansion.

Unit 1 Determinant:

Definition, evaluation of determinant of order 2 and 3, properties of determinant (without proof), Examples based on evaluation and properties, Cramer's rule, solution to given system of linear equations of two and three variables by Cramer's rule. [15 Periods]

Unit 2 Matrix Algebra:

Definition of matrix, Types of matrices, Addition, subtraction and product of two or more matrices, examples on addition, subtraction and product, Inverse of a matrix by adjoint method, Inverse of a matrix by row transformation, examples based on inverse.[15 Periods]

Unit 3 Permutation and Combination:

Concept of permutation, combination, notation, definition, Relation between them, examples based on nC_r and nP_r . [15 Periods]

Unit 4 Binomial Theorem:

Concept and definition of Binomial Theorem, Expansion of $(a + b)^n$, $(a - b)^n$, finding of middle term, r^{th} term and coefficient of r^{th} term in the expansion, Numerical problems. [15 Periods]

Reference Books

- i) Business Statistics by S.S. Desai
- ii) Business Statistics by G.V. Kumbhojkar
- iii) Introduction to Mathematical Statistics by S.C. Gupta.
- iv) Mathematics & Statistics by Sureanjan Shah
- v) Text book of matrices by Shanti Narayan
- vi) Elements of Statistics, by D. N. Elhance
- vii) Fundamentals of Applied Statistics, by V. K. Kapoor.
- viii) Business Statistics, by G. C. Beri.

B.Com. Part-III- SEM-V (CBCS)
Paper II : DSE-J 2 : Advanced Statistics
(Applied Statistics)
(Optional Paper)
Credit -4

Course Outcomes:

After completion of this course, students will be able to:

1. Explain the concept of demography and terms related to it.
2. Use the life table and mortality table in real life situations.
3. Understand the concept of hypothesis testing and different tests of hypothesis.
4. Perform testing of hypothesis for the real-life examples.

Unit 1 Measures of Mortality and Fertility:

Concept of demography, vital events, Different measures to measure birth rates such as i) CBR ii) GFR iii) ASFR iv) TFR. Definition, formula, merits and demerits, example based on these rates. Different measures of mortality i.e. death rates such as i) CDR ii) SDR iii) STDR by direct method, Example based on these rates. [15Periods]

Unit 2 Measures of Population growth or Reproduction rates:

Limitations/definition of fertility rate, Introduction of measures of population growth, measures such as GRR and NRR, Definition, formulas, merits and demerits of each one, examples based on these measures. [15Periods]

Unit 3 Life table or Mortality table:

Definition, types of life table, various columns of life table, construction of life table, Examples based on fill in the blanks or total construction when x and $l(x)$ is known. Uses of life table. [15Periods]

Unit 4 Testing of Hypothesis:

Definition of Parameter, Statistic, Hypothesis (simple and composite, null and alternative), Critical Region, level of significance, Type-I and Type-II errors.

- a) Large sample tests for variables (z test): Test for $\mu = \mu_0$ and $\mu_1 = \mu_2$
- b) Large sample tests for proportion: Test for $p = p_0$ and $p_1 = p_2$
- c) Student's t test: Test for $\mu = \mu_0$ and $\mu_1 = \mu_2$

- d) Chi square test: Chi-square test of independence of two attributes (for $m \times n$ contingency table), derivation of formula for 2×2 contingency table. Examples based on these tests.
- e) Snedecore's F test: Test for $\sigma_1^2 = \sigma_2^2$ [15Periods]

Reference Books

- i) Business Statistics by S.S. Desai
- ii) Business Statistics by G.V. Kumbhojkar
- iii) Introduction to Mathematical Statistics by S.C. Gupta.
- iv) Mathematics & Statistics by Sureanjan Shah
- v) Text book of matrices by Shanti Narayan
- vi) Elements of Statistics, by D. N. Elhance.
- vii) Fundamentals of Applied Statistics, by V. K. Kapoor.
- viii) Business Statistics, by G. C. Beri.

B.Com. Part-III- SEM-VI (CBCS)
Paper III : DSE-J 3 : Advanced Statistics
(Probability and Probability distributions)
(Optional Paper)
Credit -4

Course Outcomes:

After completion of this course, students will be able to:

- i) Explain the concept of probability and compute the probability of various events.
- ii) Explain the concept of mathematical expectation and derive it.
- iii) Understand discrete probability distributions in general.
- iv) Understand Binomial, Poisson and Normal distributions

Unit No. 1 Probability

Concept and definitions of various terms used in probability, definition of probability. Examples based on definition. Addition and Multiplication laws of probability (with proof). Bayes theorem (Statement only). Examples on conditional probability and Bayes theorem.

[15 Periods]

Unit No. 2 Mathematical Expectation

Definition and examples based on mathematical expectation. Addition and Multiplication theorems on mathematical expectation (with proof). Examples based on these theorems. [15 Periods]

Unit No.3 Discrete probability distribution

Definition of probability mass function (pmf) distribution function (cdf). Properties of distribution function. Numerical Examples. [15 Periods]

Unit No. 4 Probability distributions

Binomial, Poisson and Normal distributions: Definition, properties and examples based on these distributions. Mean and variance of binomial and Poisson distributions (with Proof). Poisson distribution as limiting case of binomial distribution (with Proof). Limitations of Binomial distribution. Properties of normal curve. Fitting of Binomial and Poisson Distributions.

[15 Periods]

Reference Books for paper III:

- i) Business Statistics by S.S. Desai, Publisher: Jai-Gouri
- ii) Business Statistics by G.V. Kumbhojkar, Publisher: Phadake
- iii) Introduction to Mathematical Statistics by S.C. Gupta and V.K. Kapoor Sultan Chand & Sons, Delhi.

B.Com. Part-III- SEM-VI (CBCS)
Paper – IV : DSE-J 4 : Advanced Statistics
(Operations Research)
(Optional Paper)
Credit -4

Course Outcomes:

After completion of this course, students will be able to:

- i) Formulate and solve a linear programming problem.
- ii) Solve transportation problem using various methods.
- iii) Solve assignment problem using Hungarian method.
- iv) Solve Sequencing Problem.

Unit No. 1 Linear Programming Problem

Concept, formulation of Linear Programming Problem (L.P.P.). Solution of L.P.P. by graphical method. Examples based on minimization and maximization of given function.

[15 Periods]

Unit No. 2 Transportation problem

Concept, Mathematical Model, Balanced and Unbalanced Transportation problem (T.P.). Solution of T.P. by i) NWCR method ii) Least cost method, iii) Vogel's method. Examples based on these methods.

[15 Periods]

Unit No. 3 Assignment Problem

Concept, Mathematical Model, Balanced and Unbalanced Assignment Problem (A.P.) Hungarian method to obtain solution. Examples by Hungarian method.

[15 Periods]

Unit No. 4 Sequencing Problem

Concept of sequencing, sequencing of n jobs through 2 machines, and n jobs through 3 machines. Stepwise procedure. Examples to determine the sequencing and total time required. Also to find Idle time of the machine.

[15 Periods]

Reference Books for paper IV

- i) Operations Research by S. D. Sharma, Publisher: Kedar Nath.
- ii) Operations Research: An Introduction by H A Taha, Publisher: Pearson.
- iii) *Operations Research: Theory and Application*, J.K. Sharma, Publisher: Macmillan.

EQUIVALENCE OF THE PAPERS / COURSES

Sr.	Existing title of the Paper	Revised Title of the paper
1	Advanced Statistics Paper I (Mathematical Methods)	Advanced Statistics Paper I (Mathematical Methods)
2	Advanced Statistics Paper II (Applied Statistics)	Advanced Statistics Paper II (Applied Statistics)
3	Advanced Statistics Paper III (Probability and Probability distributions)	Advanced Statistics Paper III (Probability and Probability distributions)
4	Advanced Statistics Paper - IV (Operations Research)	Advanced Statistics Paper - IV (Operations Research)

Nature of question paper for B.Com -III

Semester V & VI (Paper No. I to IV)

Attempt any five questions.

Total marks 40

Q1. Write short answers (any two out of three)	08
Q2. Broad question	08
Q3. Broad question	08
Q4. Broad question	08
Q5. Broad question	08
Q6. Broad question	08
Q7. Write short notes (any two out of three)	08

B.Com Part – III Semester V

Paper-I: DSE-K1: E-Commerce

Course Outcome –

1. **Understanding the basic structure of E-Commerce industry**
2. **Understanding transactional flow in E-Commerce**

Sr No.	Topic	No of Lectures
Unit 1	<p>Introduction to Electronic Commerce</p> <ul style="list-style-type: none">• What is E-Commerce• Goals of E-Commerce• Functions of E-Commerce• Potential of E-Commerce Industry• Various e-commerce platforms at present• Types of E-Commerce segments (B2C, B2B, C2C etc.) <p>Practical – Get preliminary information of various E-Commerce companies</p>	15
Unit 2	<p>E-Commerce Framework</p> <ul style="list-style-type: none">• Introduction to E Commerce Structure / Framework• Internet• e-Commerce Portal / ERP System• Warehouse• Point of Sale (POS)• Payment Gateway• Call Centre• Data Analytics• CRM (Customer Relationship Management) <p>Practical – Draw Diagram of framework of any e-commerce company based on some practical research</p>	15
Unit 3	<p>Electronic Payment System</p> <ul style="list-style-type: none">• Introduction• Modes of Electronic payments (net banking, debit / credit card, payment wallets etc.)• Online payment process• Security controls• Online frauds & cautions to be taken care of• Online payment service providers <p>Practical – Prepare case study paper on online fraud</p>	15

Unit 4	<p>Online Order Processing</p> <ul style="list-style-type: none"> <li>• Order Intimations <li>• Shipping & Billing <li>• Bar Code System <li>• Shipment Tracking <li>• Order Dashboard <li>• Account Settlement <p>Practical – Visit any online seller and observe order processing activities</p>	15
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B.Com Part – III Semester III
Paper-II : DSE-K2 : E-Commerce

Course Outcome –

1. Understanding the various functions of E-Commerce industry
2. Understanding of cyber security threats and remedies
3. Understanding of basics of digital marketing

Sr No.	Topic	No of Lectures
Unit 1	<p>Supply Chain & Warehouse Management</p> <ul style="list-style-type: none">• Packaging of Products• Inventory Management – Coding, storage & monitoring• Security Controls <p>Practical – Visit any seller company who sales online and observe the warehouse management systems</p>	15
Unit 2	<p>Digital Marketing Basics</p> <ul style="list-style-type: none">• Various avenues of digital marketing• Difference between traditional marketing and digital marketing• SEO (Search Engine Optimization)• Recent Trends in digital marketing <p>Practical – Visit any Digital marketing service provider company and interact</p>	15
Unit 3	<p>Cyber Laws & Intellectual Property Rights, Internet Security</p> <ul style="list-style-type: none">• Types of cyber threats (financial, virus, hacking etc.)• Introduction to Information Technology Act• Importance of Trade Mark, Patents & Copy Right• Consequences of Infringement <p>Practical – Visit any Cyber Law Professional / IPR service provider company and interact</p>	15
Unit 4	<p>CRM (Customer Relationship Management)</p> <ul style="list-style-type: none">• What is CRM• Use of Technology for CRM• Future of Industry• New Marketing Trends• Loyalty Programmes <p>Practical – Make short study on CRM softwares used in the market</p>	15

Reference Books:

1. Concepts of E-Commerce by Adesh Pandye
2. E-Commerce by Sarika Gupta and Gaurav Gupta
3. E-Commerce Strategy, Technology and Implementation by Gary Schneider
4. The Complete E-Commerce Book by Janice Reynolds

B.Com Part – III Semester VI

Paper-III : DSE-K3 : E-Commerce

Course Outcome –

4. Understanding the various functions of E-Commerce and its technological aspect.
5. Understanding of consumer oriented e Commerce and e retailing.
6. Understanding of basics of digital marketing

Sr No.	Topic	No of Lectures
Unit 1	Internet Concepts & Technologies: <ul style="list-style-type: none"> • Concept & evolution of internet • Web technologies – Global Publishing concept, hypertext, • Concepts of URLs, HTTP, HTTPD, Servers, HTML, HTML Forms & CGI gateway services. 	
Unit 2	E-Commerce and its Technological aspect: <ul style="list-style-type: none"> • Developments in Information Technology and its relevance to E-Commerce • The scope of E- Commerce, E- Marketing • Benefits and limitations of E-Commerce, • Produce a generic framework for E-Commerce. • Architectural framework of Electronic Commerce, Web based E Commerce Architecture. <i>Practical – Conduct interview of minimum 5 online shop holders and observe their management systems</i>	15
Unit 3	Consumer Oriented E- Commerce and E-Retailing: <ul style="list-style-type: none"> • Traditional retailing and e retailing, Benefits of e retailing, • Models of e retailing, Features of e retailing. • E services: Categories of e-services, Web-enabled services, matchmaking services, Information-selling on the web, • E entertainment, Auctions and other specialized services. • Business to Business Electronic Commerce <i>Practical – identifying customer oriented e-Services and develop models of E-services</i>	15

Unit -4	Electronic Data Interchange: <ul style="list-style-type: none"> • Benefits of EDI, EDI technology, EDI standards, EDI Communications, EDI Implementation, EDI Agreements, EDI Security. • Electronic Payment Systems, Need of Electronic Payment System: Study and examine the use of Electronic Payment system and the protocols used, Study Electronic Fund Transfer and secure electronic transaction protocol for credit card payment. • Digital economy: Identify the methods of payments on the net – Electronic Cash, cheques and credit cards on the Internet. <i>Practical – Conduct Dummy bank transaction and write detail process of Electronic payment system, Fund transfer system.</i>	15
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Reference Books:

1. Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.
2. RaviKalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley. 3. Efraim Turban, Jae Lee, David King, H.Michael Chung, "Electronic Commerce–A ManagerialPerspective", Addison-Wesley.
4. Elias M Award, "Electronic Commerce from Vision to Fulfilment", 3rd Edition, PHI, Judy Strauss, Adel El-Ansary, Raymond Frost, "E-Marketing", 3RDEdition, Pearson Education.

B.Com Part – III Semester VI

Paper-IV : DSE-K4: E-Commerce

Course Outcome –

1. **Understanding the various functions of E-Commerce and its technological aspect.**
2. **Students able to know the security issues in E-Commerce.**
3. **Understanding of basics of digital marketing**

Sr No.	Topic	No of Lectures
Unit 1	Website Design and E-Commerce <ul style="list-style-type: none"> • Role of web – site in B2C e-commerce; website strategies & web-site design principles; • Push & pull technologies, alternative methods of customer communication. Multi – Media & E-commerce; push & pull technologies, alternative methods of customer communication	15

Unit 2	Online Retail Sector: <ul style="list-style-type: none"> Analyzing the Viability of Online Firms E-commerce in Action: E- Retailing Business Models <ul style="list-style-type: none"> The Service Sector: Offline and Online Online Financial Services Online Travel Services Online Career Services • On-Demand Service Companies 	15
Unit 3	Security Issues in E-Commerce: <ul style="list-style-type: none"> Introduction, need and importance Security risks of e-commerce, exposure of resources, Type of threats, sources of threats, Security tools & risk – management approach 	15
Unit 4	Ethical, Social and Political issues in E-Commerce: <ul style="list-style-type: none"> Basic Ethical Concepts, Analyzing Ethical Dilemmas, Candidate Ethical principles Privacy and Information Rights: Information collected at E-Commerce Websites, The Concept of Privacy, Legal protections Intellectual Property Rights: Types of Intellectual Property protection, Governance. <p><i>Practical – Prepare case study and project report on ethical, political and social issues E-Commerce</i></p>	15

Reference Books:1. Elias. M. Awad, " Electronic Commerce", Prentice-Hall of India Pvt Ltd.

2. RaviKalakota, Andrew B. Whinston, "Electronic Commerce-A Manager's guide", Addison-Wesley. 3. Efraim Turban, Jae Lee, David King, H.Michael Chung, "Electronic Commerce–A ManagerialPerspective", Addison-Wesley.

4. Elias M Award, "Electronic Commerce from Vision to Fulfilment", 3rd Edition, PHI, Judy Strauss, Adel El-Ansary, Raymond Frost, "E-Marketing", 3RDEdition, Pearson Education.

B. Com (CBCS Pattern)Part- III (Semester-V)

Paper IX : Tax Procedure and Practice

Title of paper- GST (CGST, SGST and IGST)

Generic Elective Course

(Credit 4)

Objectives:- 1) To enhance the knowledge of students with latest amendments in GST Law

2) To clarify the technical aspects and provisions in GST Law

Unit- I	GST Returns (Furnishing details of outward supply, Furnishing details of inward supply, First Return, Annual Return, Final Return, matching of Input Tax Credit)- Specimen Forms for the Returns	Periods-20
Unit- II	1) Sec. 35 Accounts and Sec. 36 Records (Period of Retention, Rules for maintenance of Accounts) 2) Sec. 67 Inspection, Search and Seizure (Power of Inspection, Authority for Search and Seizure)	Periods-10
Unit- III	TCS and TDS, Payment of GST (payment of tax, Interest etc.)	Periods- 10
Unit- IV	Basic Problems- Net GST liability, Time of Supply, Value of Supply	Periods- 20

B. Com (CBCS Pattern)Part- III (Semester-VI)

Paper XI : Tax Procedure and Practice

Title of paper- GST (CGST, SGST and IGST)

Generic Elective Course

Credit-4

Objectives:- 1) To enhance the knowledge of students with latest amendments in GST Law

2) To clarify the technical aspects and provisions in GST Law

Unit- I	Refund of GST (Refund of Tax, Interest on delayed refund	Periods-10
Unit- II	1) Assessment- Self Assessment, Provisional Assessment, Summery Assessment, Scrutiny Assessment, Best Judgment Assessment 2) Audit- Sec. 65- Audit by Tax Authorities Sec. 66- Special audit	Periods-10
Unit- III	1) Appeals and Revision (Appeals to appropriate authority, power of revisional authority) 2) Advance Rulings (Authority for advance rulings, application and procedure)	Periods- 20
Unit- IV	Basic Problems- Admissibility of ITC, Calculation of net GST liability, Composition levy	Periods- 20

B.com- III
Semester V and VI (CBCS Pattern)
Tax Procedure and Practice- GST (CGST, SGST and IGST)
Nature of Question Paper

Internal Marks-	10 marks
Shivaji University Exam	40 marks

Instructions:-

- 1) All question carry equal marks
- 2) Attempt any Five questions out of Seven

Q. 1	Theory- Short Notes (Any Two out of Four)	08 marks
Q. 2	Theory Broad Question	08 marks
Q. 3	Theory Broad Question	08 marks
Q. 4	Problems	08 marks
Q. 5	Problems	08 marks
Q. 6	Problems	08 marks
Q. 7	Problems	08 marks

Equivalence

Sr. No.	Old Name	New Name
1	Tax procedure and practice GST (CGST, SGST and IGST) paper- IX (Vocational)	Tax procedure and practice GST (CGST, SGST and IGST) paper- IX (CBCS)
2	Tax procedure and practice GST (CGST, SGST and IGST) paper- XI (Vocational)	Tax procedure and practice GST (CGST, SGST and IGST) paper- XI (CBCS)

Reference Books:-

- 1) A Birds eye view- Jha and Singh
- 2) GST made simple- Taxman
- 3) Basics of GST- Taxman
- 4) GST guide for Students- CA Vivek Agarwal

B. Com (CBCS Pattern) Part III (Semester V)

Paper X : Tax Procedure & Practice

Title of Paper – **Customs**

Generic Elective Course

Credit – 4

Objectives :-

1	To impart theoretical knowledge of Basic concepts of customs, import & export.
2	To develop the skills of solving problems of valuation and calculation of custom duties on imported goods.
3	To acquaint students with the term prohibition on import & export in customs.

Unit I	Introduction of Customs, Role in international trade, organization of customs in India, administration & operational authorities.	10 Hours
Unit II	An overview of Customs Act, 1962, Customs Tariff Act, 1975. Kinds of duties - Basic, Protective, CGST, safeguard, Anti-dumping, anti-subsidy, countervailing, NCCD, cess	10 Hours
Unit III	Important terms & definitions - Assessable value, baggage, Bill of Entry, Bill of Export, Dutiable Goods, Foreign Going Vessel, Exporter, Import Manifest, Prohibited Goods, Shipping Bill, Bill of Lading, Import, Importer, Stores, Letter of Credit, FOB, CIF, Goods Prohibition on importation & exportation of goods & its reasons, Smuggling	30 Hours
Unit IV	Basic problems- Valuation of imported goods, calculation of custom duty	10 Hours

B. Com (CBCS Pattern) Part III (Semester VI)
Paper XII : Tax Procedure & Practice
 Title of Paper – **Customs**
 Generic Elective Course

Credit - 4

Objectives : -

1	To understand the meaning of types & modes of import & export.	
2	To impart theoretical knowledge of import & export clearance procedure of goods in detail.	
3	To enhance the knowledge of students with the practical solutions of computation of Baggage.	

Unit I	<u>Import of Goods</u> - Types of import- Free, Restricted, Prohibited types of licenses - Advance, EPCG, DFRC, Modes of import <u>Export of Goods</u> - Types of export, types of Exporter, Modes of export	10 Hours
Unit II	<u>Clearance Procedure of Import & Export</u> Import - For Home Consumption, for warehousing, Ex-bond clearance Export -Procedure & filing of documents, Main, auxiliary & regular	20 Hours
Unit III	<u>Duty Drawback System</u> Meaning of scheme, Sec 74 & sec 75, Rules for drawback, Documents required for claiming drawback, types of duty drawback	10 Hours
Unit IV	<u>Clearance of Baggage</u> Meaning and kinds of baggage, Rules & procedure of import thereof Basic problems on clearance of baggage & calculation of custom duty thereon	20 Hours

	<p align="center">B.Com. Part-III Semester – V (Optional Paper) Industrial Management Paper – I Subject Code: DSE – B1 (Factory and Capital Management)</p>	
	<p>Objectives:-</p> <ol style="list-style-type: none"> 1. To make students familiar with the subject industrial management. 2. To expose the students the importance and applicability of industry management. 	
	<p>Learning Outcomes</p> <ol style="list-style-type: none"> 1. Understanding the concept Industrial Management. 2. Acquaintance with the Work Environment. 3. Acquaintance with the Plant Maintenance. 4. Acquaintance with Financial Management 	
	<p>Teaching Methods: <i>Lecture, Interactive ICT Based Use of case lets</i> <i>Lecture Interactive ICT Based Discussion Method</i></p>	
Sr. No	Content	No. of Lectures
1	<p>Unit I:-</p> <p>1.1 Introduction to Industrial Management– Meaning and importance of industrial management.</p> <p>1.2 Introduction to Enterprise Resource Planning (ERP), System Application and Product (SAP)</p> <p>1.3 Factory Location and Plant Layout-</p> <p>1.3.1 Factory Location: Meaning of location of factory, factors determining location of factory</p> <p>1.3.2 Plant Layout: Meaning of plant layout Objectives, Importance of plant layout, Factors influencing layout, Types of layout Problems of layout.</p>	20
2	<p>Unit II :- Work Environment -</p> <p>2.1 Meaning</p> <p>2.2 importance of work Environment</p> <p>2.3 Factors affecting work environment, Lighting, Ventilation, Sanitation, noise control and Air conditioning</p> <p>2.4 Quality Circles, Kaizen, 5 S,</p>	20
3	<p>Unit III :- Plant Maintenance –</p> <p>3.1 Concept, Importance</p>	10

	3.2 Objectives of good maintenance system 3.3 types of maintenance 3.4 Preventive Maintenance 3.5 Recent trends in plant maintenance	
4	Unit IV – Financial Management 4.1 Concept of financial Management, 4.2 Objective of Financial management 4.3 Importance and Determinants of Capital Management 4.4 Sources of finance 4.5 Fixed and working capital	10
	References for Paper I to IV : 1. L. C. Jhamb: Industrial Management Savitri Jhamb Everest Publishing House, Pune 2. J. K. Jain : Industrial Management\ Kitab Mahal– Agre 3. K. Aswathappa: Production and Operations Management 4. K. ShridharaBhat – Himalaya Publishing House 5. M. E. ThukaramRao: Industrial Management Himalaya Publishing House 6. Lundy J. L. : Effective Industrial Management Eurasia Publishing Co. 7. Srivastava R. M. : Management Policy and Strategic Management Concepts, Skills and Practices 8. Cost Accounting: B. K. Bhar 9. C. B. Mamoria Gankar: Dynamics of Industrial Relations 10. O. P. Khanna: Industrial Engineering and Management 11. K. Ashwathappa: Human Resource Management, Tata McGraw Hill, New Delhi 12. A. K. Ahuja : Industrial Management, Kalyani Publishers, New Delhi	

	<p style="text-align: center;">B.Com. Part-III Semester – V (Optional Paper) Industrial Management Paper – II Subject Code: DSE – B2 (Human Resource Management)</p>
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	Objectives: <ol style="list-style-type: none"> 1. To make students familiar with the subject human resource management. 2. To expose the students the importance and applicability of human resource management. 	
	Learning Outcomes: <ol style="list-style-type: none"> 1. Knowledge about the Human Resource Management 2. Acquaintance with the Human Resource Management 3. Acquaintance with the Employee Training. 4. Acquaintance with - Recent Trends in HRM 	
	Teaching Methods: Lecture, Interactive ICT Based Use of case lets. Lecture Interactive ICT Based Discussion Method	
Sr. No	Content	No. of Lectures
1	Unit I - Introduction to Human Resource Management- <ol style="list-style-type: none"> 1.1 Concept and Nature 1.2 Scope 1.3Significance 1.4 Objectives 1.5 Functions of HRM. 1.6 Ethical Issues In HRM: Meaning, Importance and Ethical Issues In HRM 	10
2	Unit II – Human Resource Planning (HRP) <ol style="list-style-type: none"> 2.1Meaning and need for Human resource Planning, Process of HRP Factors affecting HRP 2.2Job Analysis, Job Description, Job Specification. 2.3Recruitment and selection- <ol style="list-style-type: none"> 2.3.1 Meaning, 2.3.2 Sources of recruitment 2.3.3 Steps in the scientific selection procedure 2.3.4 e- recruitment: Meaning and Advantage 	20
3	Unit III – Employee Training and Performance Appraisal <ol style="list-style-type: none"> 3.1Employee Training- <ol style="list-style-type: none"> 3.1.1 Meaning 3.1.2 Need for training 3.1.3Steps in training 3.1.4Methods of Training 3.1.5Impediments of effective training 3.2Performance Appraisal and Merit Rating <ol style="list-style-type: none"> 3.2.1 Meaning 	20

	<p>3.2.2 purpose of performance appraisal</p> <p>3.2.3 Methods of performance appraisal 3.2.3 Ethics in performance appraisal</p> <p>Merit Rating-</p> <p>3.2.4 Meaning</p> <p>3.2.5 Benefits of Merit Rating,</p> <p>3.2.6 Difference between performance appraisal and merit rating</p>	
4	<p>Unit IV :- Recent Trends in HRM –(Concept and Nature)</p> <p>4.1 Employee's brand</p> <p>4.2 Outsourcing of HR</p> <p>4.3 e-HRM</p> <p>4.4 Work Life Balance</p> <p>4.5 Emotional Intelligence and Talent Management</p>	10
	<p>References for Paper I to IV:</p> <ol style="list-style-type: none"> 1. L. C. Jhamb : Industrial Management Savitri Jhamb Everest Publishing House, Pune 2. J. K. Jain : Industrial Management\ 3. K. Aswathappa : Production and Operations Management 4. K. ShridharaBhat – Himalaya Publishing House 5. M. E. Thukaram Rao : Industrial Management Himalaya Publishing House 6. Lundy J. L. : Effective Industrial Management Eurasia Publishing Co. 7. Srivastava R. M.: Management Policy and Strategic Management Concepts, Skills and Practices 8. Cost Accounting: B. K. Bhar 9. C. B. Mamoria Gankar : Dynamics of Industrial Relations 10. O. P. Khanna : Industrial Engineering and Management 11. K. Ashwathappa : Human Resource Management, Tata McGraw Hill, New Delhi 12. A. K. Ahuja : Industrial Management, Kalyani Publishers, New Delhi 	

<p align="center">B.Com. Part-III Semester - VI (Optional Paper) Industrial Management Paper – III Subject Code: DSE – B3 (Production Management)</p>	
	<p>Objectives:</p> <ol style="list-style-type: none"> 1. To make students familiar with the subject industrial management. 2. To Expose the students the importance and applicability of industrial management

	Learning Outcomes: Understanding the Meaning concept of Production Management and PPC. Acquaintance with the Productivity. Acquaintance with the Inventory Management Acquaintance with Logistic Management	
	Teaching Methods: 1. Lecture, Interactive ICT Based Use of case lets. 2. Lecture Interactive ICT Based Discussion Method	
Sr. No	Content	No. of Lectures
1	Unit I:- Production Management and Planning and Control (PPC): – 1.1Production Function- 1.1.1 Meaning, Concept and Objectives 1.1.2 Function of production Management 1.2Planning and Control (PPC): 1.2.1 Meaning 1.2.2 Objectives 1.2.3Importance of production planning and control 1.2.4 Techniques of production control Routing, Scheduling, Dispatching and follow up 1.2.5 Limitations of PPC.	20
2	Unit II :- Productivity - 2.1Meaning, Importance 2.2Measurement of Productivity 2.3Factors influencing productivity 2.4Methods of improving productivity 2.5ProductionV/s Productivity.	10
3	Unit III :- Inventory Management 3.1 Meaning and Objectives of inventory Management 3.2 Receipt and issue of material (Bin Card, Store Ledger) 3.3 Pricing of material Issues (First In First Out and Last In First Out) 3.4 EOQ 3.5 ABC Analysis and VED Classifications 3.6 Just in Time (JIT) Production – Meaning, Techniques and Advantages. 3.7 Recent Trends in Inventory Management.	20

4	Unit IV :- Logistic Management- 4.1 Meaning 4.2 Objectives 4.3 Importance of logistic Management, 4.4 Activities of the logistics Management 4.5 Functions-Transportation, Warehousing including Cold Storage Material handling and Packaging. 4.6 Supply chain Management: Meaning, Definition and Importance	10
	References 1. L. C. Jhamb: Industrial Management Savitri Jhamb Everest Publishing House, Pune 2. J. K. Jain: Industrial Management\ Kitab Mahal– Agre 3. K. Aswathappa : Production and Operations Management 4. K. Shridhara Bhat – Himalaya Publishing House 5. M. E. Thukaram Rao : Industrial Management Himalaya Publishing House 6. Lundy J. L.: Effective Industrial Management Eurasia Publishing Co. 7. Srivastava R. M.: Management Policy and Strategic Management Concepts, Skills and Practices 8. Cost Accounting : B. K. Bhar 9. C. B. MamoriaGankar : Dynamics of Industrial Relations 10. O. P. Khanna : Industrial Engineering and Management 11.KAshwathappa : Human Resource Management, Tata McGraw Hill, New Delhi 12. A. K. Ahuja : Industrial Management, Kalyani Publishers, New Delhi	

B. Com. Part-III Semester – VI (Optional Paper) Industrial Management Paper – IV Subject Code: DSE – B4 (Personnel Management)	
	Objectives: 1. To make students familiar with the subject industrial management. 2. To expose the students the importance and applicability of industry management.
	Learning Outcomes: 1. Knowing the meaning and concept about the Employee Remuneration. 2. Acquaintance with the Industrial Relations. 3. Acquaintance with the Employee Safety, Health and Moral 4. Acquaintance with HR Accounting

	Teaching Methods: <i>Lecture, Interactive ICT Based Use of case lets.</i> <i>Lecture Interactive ICT Based Discussion Method</i>	
Sr. No	Content	No. of Lectures
1	Unit I:- Employee Remuneration – 1.1 Concepts of remuneration 1.2 Meaning of wages and salary 1.3 Objectives of wage and salary administration 1.4 Factors influencing wage and salary structure and administration 1.5 Methods of wage payment Time rate, Piece rate 1.6 Incentive plans (Halsey, Rowan and Taylor)	10
2	Unit II :- Industrial Relations – 2.1 Meaning, Objectives and Significance of industrial relations 2.2 The parties to industrial relations 2.3 Factors affecting industrial relations. 2.4 Meaning and Causes of industrial Disputes 2.5 Measures taken by Govt. to prevent Industrial disputes.	20
3	Unit III :- Employee Safety, Health and Moral: 3.1 Meaning and need of employee safety 3.2 Factors in safety programme Meaning and importance of employee health 3.3 Occupational hazards, risks and diseases 3.4 Protection against health hazards and statutory provisions under The Factories Act, 1948– Health, safety and welfare provisions 3.5 Meaning of employee morale.	20
4	HR Accounting: 4.1 Meaning, Definition and Objectives 4.2 Advantages of HR Accounting 4.3 Determinants of Human Capital 4.4 Methods of HR Accounting	10
	References for Paper I to IV: 1. L. C. Jhamb : Industrial Management Savitri Jhamb Everest Publishing House, Pune 2. J. K. Jain : Industrial Management\ Kitab Mahal– Agre 3. K. Aswathappa : Production and Operations Management 4. K. Shridhara Bhat – Himalaya Publishing House 5. M. E. Thukaram Rao : Industrial Management Himalaya Publishing House 6. Lundy J. L. : Effective Industrial Management Eurasia Publishing Co. 7. Srivastava R. M.: Management Policy and Strategic Management Concepts, Skills and Practices 8. Cost Accounting: B. K. Bhar 9. C. B. Mamoria Gankar: Dynamics of Industrial Relations	

	<p>10. O. P. Khanna : Industrial Engineering and Management</p> <p>11.KAshwathappa : Human Resource Management, Tata McGraw Hill, New Delhi</p> <p>12. A. K. Ahuja : Industrial Management, Kalyani Publishers, New Delhi.</p>	
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