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॥ प्रज्वलितो ज्ञानमय प्रदीपः ॥

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Shri. Shahu Shikshan Prasarak Seva Mandal, Peth Vadgaon's



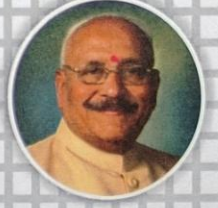
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**SHRI. VIJAYSINHA YADAV COLLEGE**

**PETH VADGAON**

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**Smt. Vijayadevi V. Yadav**

**Principal :**

**Dr. Vijaya R. Chavan**  
M.Sc., Ph.D.

## CRITERION I

### CURRICULAR ASPECTS

#### 1.3: Curriculum Enrichment

1.3.2: Average percentage of courses that include experiential learning through project work/field work/internship during last five years

1.3.2.1: Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

Sr. No.	Content
1	University Circulars about Project Work

**Draft**

**Shivaji University, Kolhapur**  
**Regulations and Guidelines**  
**Under Choice Based Credit System (CBCS)**  
**Bachelor of Arts (B. A.) Program**  
**Under the Faculty of Humanities**  
**(To be implemented from Academic Year 2018-19)**

1. **Implementation of Regulations & guidelines** - The Regulations and guidelines shall be implemented as mentioned below -

**B.A. Part – I, Sem I & II** from Academic year 2018- 19

**B.A. Part – II, Sem III & IV** from Academic year 2019- 20

**B.A. Part – III, Sem V & VI** from Academic year 2020- 21

2. **Eligibility Criteria:** As per Ordinance – O. B. A. 1

3. **Pattern of CBCS for semester-** The pattern of CBCS for Semester examinations shall be as mentioned below:

i. **B. A. Part – I, Sem I & II:-** 50 marks University Semester examination for each theory paper in each Semester.

ii. **B. A. Part – II, Sem III & IV:-** 50 marks University Semester examination for each theory paper in each Semester except Environmental Studies. For Environmental Studies at Semester IV, 70 marks will be for University examination for theory paper and 30 marks for the project work.

iii. **B. A. Part – III, Sem V & VI :-** 40:10 pattern shall be applicable for each theory paper in each semester wherein 40 marks shall be for University Semester examination and 10 marks for internal assessment.

4. **Weightage:** There shall be 1900 marks for 3 years having 6 Semesters B. A. CBCS Program with 148 Credits.

**a) B. A. Part – I (Sem I & II) :**

For B. A. Part I total 12 papers with 6 papers of each semester and total Credits shall be 48 with 24 Credits for each Semester.



- I. There shall be Ability Enhancement Compulsory Courses (subjects) (hereafter termed as AECC) with Paper 1 for Sem I and Paper 2 for Sem II each of 50 marks, as compulsory English course.
- II. There shall be one Compulsory Generic Elective (CGE) to be chosen from group A or B.
- III. There shall be four Discipline Specific Elective Courses (subjects) (hereafter termed as DSE) per semester. Student can select any two papers each from DSE- A and DSE –B.

**b) B.A. Part –II (Sem III & IV) –**

For B. A. Part II total 13 papers with 6 papers for of each semester and one compulsory paper Environmental Studies. Credits shall be 52 with 28 Credits for Sem III and 24 Credits for Sem IV.

- I. There shall be Ability Enhancement Compulsory Course (subjects) (hereafter termed as AECC) with Paper 3 for Sem III and Paper 4 for Sem IV each of 50 marks, as compulsory English course.
- II. There shall be one compulsory Interdisciplinary Studies (IDS) to be chosen from group IDS -A or IDS- B. However it is compulsory to select IDS subject from respective DSE group, i. e. Candidate who has selected paper from DSE- C group should select from IDS- A group. Similarly Candidate who has selected paper from DSE- D group should select from IDS- B group.
- III. There shall be One Paper EVS (Theory – 70 marks) and Paper EVS (Project – 30 marks) as compulsory Environmental Studies course. The examination shall be conducted at the end of Sem IV. The Credits of the Environmental Studies course shall be assigned at the end of Sem IV.
- IV. There shall be two papers each, from two Discipline Specific Elective DSE- C and DSE - D (subjects) per semester.

**c) B.A. Part –III (Sem V & VI) –**

For B. A. Part III total 12 papers with 6 papers of each semester and Credits shall be 48 with 24 Credits for each Semester of these. For each



paper there shall be 3.2 Credits for theory and 0.8 credits for internal assessment.

- I. There shall be Ability Enhancement Compulsory Course AECC-5 for Sem V and AECC- 6 for Sem VI, each of 40 (Theory)+10(Internl) marks.
- II. There shall be one Discipline Specific Elective (hereafter termed as DSE-E) as a special course (subject) from B. A. part II – DSE- C or DSE-D.
- III. There shall be 5 theory papers each of 40 marks for a DSE-E per Semester. There shall be 5 internal assessments for each of 10 marks per Semester for DSE-E

## 5. Scheme of Examination –

### **The following shall be the scheme of Examination**

The Question paper in each Semester for each theory paper for B. A. Semester I, II, III & IV shall be of 50 marks. The question paper for Environmental Studies for Semester IV shall be of 70 marks for theory and 30 marks for project work. For B. A. Semester V & VI question paper shall be of 40 marks for each theory paper.

### **The following shall be the scheme of Internal Assessment**

There shall be continuous Internal Assessment for B.A. Part – III, **Sem V & VI**. Internal Examination/ assessment will be compulsory for all students. If a candidate fails or remains absent in Internal Examination, then candidate will have to clear the Internal Examination in subsequent attempt/s in next semester.

**For B. A. Part – III, Sem V & VI** – There shall be seminar of 10 marks at Sem V and there shall be oral examination for Sem VI for each theory paper.

6. **Duration of Semester Examination for each theory paper** - The duration of Semester Examination for each theory paper of 40/50 marks shall be of two hours except Environmental Studies of 70 marks (Sem IV, Examination) which shall be of 3 hrs.



7. **Equivalence of papers and chances for the students in previous-Semester pattern** - Two additional chances from the implementation of CBCS syllabus, shall be provided for the repeater students of old B. A. Part I, II, III – Sem I to VI. After this the concerned students will have to appear for the Examination as per CBCS Pattern. Equivalence of papers shall be provided as per revised syllabus for CBCS pattern.
8. **Standard of passing-** The Standard of passing shall be 35%. For B. A. Part I & II, Sem I to IV the candidate will have to score 18 marks out of 50 in each theory paper. Only for Environmental Studies (Sem IV, Examination) the Student will have to score marks 25 marks out of 70 in theory paper and 11 marks out of 30, for project work. For B. A. Part – III, Sem V and VI, the student will have to score 14 marks out of 40 in each theory paper and 4 marks out of 10 in each Internal Examination/ assessment. There will be a separate head of passing in Theory and Internal Examination. However ATKT rules shall be applicable to Theory Paper (University examination) only.
9. **Gradation Chart:**

Marks Obtained	Numerical Grade (Grade Point)	CGPA	Letter Grade
Absent	0 (zero)	-	-
0 - 34	0 (zero)	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  $\geq 0.5$  shall be rounded off to next higher digit.
2. The SGPA & CGPA shall be rounded off to 2 decimal points.
3. Marks obtained in 50 marks or 200 marks paper shall be converted to 100 marks.

**b) B.Sc. Part –II (Sem III & IV) –**

For B. Sc. Part II total Credits shall be 52 with 28 Credits for Sem III and 24 Credits for Sem IV. For Sem III there shall be 16 Credits for theory and 12 credits for practical and for Sem IV there shall be 12 credits for theory and 12 credits for practical.

- I. There shall be One AECC with Paper C1 (Theory – 70 marks) and Paper C2 (Project – 30 marks) as compulsory Environmental Studies course. The examination shall be conducted at the end of Sem IV. The Credits of the Environmental Studies course shall be assigned at the end of Sem IV.
- II. There shall be 3 DSC (subjects) per semester.
- III. There shall be 2 theory papers each of 50 marks for a DSC.
- IV. There shall be 1 practical of 100 marks for each DSC.

**c) B.Sc. Part –III (Sem V & VI) –**

For B. Sc. Part III total Credits shall be 36 with 18 Credits for each Semester of these; there shall be 10 Credits for theory and 8 credits for practical per semester.

- I. There shall be AECC with Paper D for Sem V and Paper E for Sem VI each of 50 marks, as compulsory English course.
  - II. There shall be one Discipline Specific Elective (hereafter termed as DSE) as a special course (subject).
  - III. There shall be 4 theory papers each of 50 marks for a DSE.
  - IV. There shall be 4 practical of each of 50 marks.
- 5. Ordinances regarding the examination** – O. B.Sc. 2, 3 and 4 shall prevail; however, there is no Internal Examination for any Paper and course. The Results of the Examination will be declared on the basis of Credits gained and Grades achieved.
- 6. Practical examinations** – There shall be the annual system of examination in respect of practical examinations for B.Sc. program. The rules for practical



examinations shall be as per the letter / circular issued by respective Board of Studies time to time.

- 7. Equivalence of papers and chances for the students in previous – semester pattern** – Two additional chances shall be provided for the repeater students of the B.Sc. After this the concerned students will have to appear for the examination as per this revised scheme.

**8. Standard of passing**

**a) For B.Sc. – I (Sem I & II)**

Except English there shall be combined passing for two theory papers of 50 marks each for each course (subject) i.e. minimum 35 marks out of 100 are required for passing. There shall be separate passing for theory and practical courses. Minimum 18 marks out of 50 are required for passing of practical examination of each course. For English theory exam, minimum 18 marks out of 50 are required for passing.

**b) For B. Sc. – II (Sem III & IV)**

Except Environmental Studies, there shall be combined passing for two theory papers of 50 marks each for each course i.e. minimum 35 marks out of 100 are required for passing. There shall be separate passing for theory and practical courses. Minimum 35 marks out of 100 required for passing of practical examination of each course. For Environmental Studies theory paper minimum 25 out of 70 and for project minimum 10 marks out of 30 are required for passing. There shall be separate passing for theory and project examination for Environmental Studies.

**c) For B. Sc. – III (Sem V & VI)**

There shall be separate passing for four theory papers of 50 marks each. Minimum 18 marks out of 50 are required for passing. For practical examination minimum 70 marks out of 200 are required for passing. There shall be separate passing for theory and practical examinations. For English, minimum 18 marks out of 50 are required for passing.

- d)** For the candidate/ student in semester-V it is compulsory to appear for the paper entitled, “Constitution of India & Local Self Government”. The

**R.B. Sc. 3 (ii): B. Sc. – II C B C S PATTERN**

**Structure - II**

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										
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						
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	18	14.4	12	19.2	24										
		28	40	32	24	38.4	48			600	--		300				
• Student contact hours per week : 32 Hours (Min.)																	
• Total Marks for B.Sc.-II (Including EVS) : 1000																	
• Theory and Practical Lectures : 48 Minutes Each																	
• Total Credits for B.Sc.-II (Semester III & IV) : 52																	
• AECC- Ability Enhancement Compulsory Course (1C) :																	
Environmental Studies: EVS ( Theory – 70 & Project – 30 Marks)																	
• Practical Examination will be conducted annually for 100 Marks per course (subject).																	
• Except Environmental Studies, combined passing for two theory papers of 50 marks each. i.e. Min. 35 marks required for passing out of 100.																	
• There shall be separate passing for theory and practical courses also for Environmental Studies.																	



<b>DSC IC44</b>	Biochemistry II	<b>DSC IC50</b>	Fisheries II
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### Sem – IV

Course code	Name of Course	Course code	Name of Course
<b>B. Sc. 2: Sem IV DSC – 1D to 38D</b>			
<b>DSC D1</b>	Physics VII	<b>DSC D20</b>	Geography VIII
<b>DSC D2</b>	Physics VIII	<b>DSC D21</b>	Geology VII
<b>DSC D3</b>	Chemistry VII	<b>DSC D22</b>	Geology VIII
<b>DSC D4</b>	Chemistry VIII	<b>DSC D23</b>	Seed Technology VII
<b>DSC D5</b>	Mathematics VII	<b>DSC D24</b>	Seed Technology VIII
<b>DSC D6</b>	Mathematics VIII	<b>DSC D25</b>	Microbiology VII
<b>DSC D7</b>	Statistics VII	<b>DSC D26</b>	Microbiology VIII
<b>DSC D8</b>	Statistics VIII	<b>DSC D27</b>	Industrial Microbiology VII
<b>DSC D9</b>	Electronics VII	<b>DSC D28</b>	Industrial Microbiology VIII
<b>DSC D10</b>	Electronics VIII	<b>DSC D29</b>	Biochemistry VII
<b>DSC D11</b>	Computer Science VII	<b>DSC D30</b>	Biochemistry VIII
<b>DSC D12</b>	Computer Science VIII	<b>DSC D31</b>	Psychology VII
<b>DSC D13</b>	Botany VII	<b>DSC D32</b>	Psychology VIII
<b>DSC D14</b>	Botany VIII	<b>DSC D33</b>	Food Science & Quality control VII
<b>DSC D15</b>	Zoology VII	<b>DSC D34</b>	Food Science & Quality control VIII
<b>DSC D16</b>	Zoology VIII	<b>DSC D35</b>	Astrophysics VII
<b>DSC D17</b>	Biotechnology (Opt) VII	<b>DSC D36</b>	Astrophysics VIII
<b>DSC D18</b>	Biotechnology (Opt) VIII	<b>DSC D37</b>	Nanotechnology (opt) VII
<b>DSC D19</b>	Geography VII	<b>DSC D38</b>	Nanotechnology (opt) VIII
		*	
<b>AECC C Environmental Studies</b>			
<b>AECC D Project</b>			

### \*Interdisciplinary Courses (IDS) (DSC – ID)

<b>DSC ID39</b>	Astrophysics III	<b>DSC ID45</b>	Plant Protection III
<b>DSC ID40</b>	Astrophysics IV	<b>DSC ID46</b>	Plant Protection IV
<b>DSC ID41</b>	Geochemistry III	<b>DSC ID47</b>	Pollution III

<p>Part-II Project Report.</p> <p>List of Restructured Subjects</p> <p>Combinations (Traditional Subjects)</p> <ol style="list-style-type: none"> <li>1. Plant Protection: Botany, Zoology, Chemistry.</li> <li>2. Pollution: Botany, Zoology, Chemistry.</li> <li>3. Agro-chemicals including Fertilizers: Chemistry, Botany.</li> <li>4. Dairy Science: Zoology and Chemistry.</li> <li>5. Fisheries: Zoology and Chemistry.</li> <li>6. Ground Water Studies and Evaluation: Geology.</li> </ol>	
<p>B. Sc. Part-III</p> <p>iii) For B. Sc. Part-III, there shall be one compulsory paper in English or one paper in Foundation Course and one Principal subject to be chosen from the three/two subsidiary subjects offered at B. Sc. Part-II.</p> <p>B)i) <u>There</u> will be two papers and practical/s per Science subject at the B. Sc. Part-I. (The nature of the practicals will be decided by the respective Boards).</p> <p>In the case of English there will be one paper at <u>each semester</u> of B. Sc. Part-I.</p> <p>ii) There will be two papers and practical/s per subject at the B. Sc. Part-II.</p> <p>iii) There will be four papers and practical/s in the Principal subject at B. Sc. Part-III. There will be one paper of English or one paper of Foundation Course <u>at each semester</u>.</p> <p>C)Distribution of marks of Theory and Practical.</p> <p>iv) B. Sc. Part-I</p>	



**Shivaji University, Kolhapur**  
**Guidelines and Rules for Semester System**  
**Under Choice Based Credit System (CBCS)**  
**To be implemented from Academic Year 2018-19**  
**Under the Faculty of Commerce and Management**

1. **Implementation of Revised guidelines and rules** - The revised guidelines and rules shall be implemented gradually as mentioned below -

**B.Com. Sem I & II from Academic year 2018- 19**  
**B.Com. Sem III & IV from Academic year 2019- 20**  
**B.Com. Sem V & VI from Academic year 2020- 21**

2. **Pattern of Semester system** - The pattern for the purpose of Semester end examinations shall be as mentioned below:

- i. **B. Com. Sem I & II** :- 50 marks University Semester end examination for each theory paper in each Semester.
- ii. **B. Com. Sem III & IV**:- 50 marks University Semester end examination for each theory paper in each Semester 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.
- iii. **B. Com. Sem V & VI** :- 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.
- iv. **Weightage** : There shall be 1900 marks for 3 years B. Com. CBCS Program with 148 Credits. 4 Credits for each course with 24 credits for each Semester except for Sem III & IV 28 Credits.

v. **Credit distribution chart for B. Com. Program with Course Code :**

Course Name	Total Courses(Papers)	Total Credits	% in total course
CC : Core Course	22	88	59%
AECC : Ability Enhancement Compulsory Courses	07	36	19%
GEC : Generic Elective Courses	04	16	11%
DSE : Discipline Specific Elective	4 (out of 44)	16	11%
<b>TOTAL</b>	<b>37</b>	<b>148</b>	<b>100%</b>

### 3. Scheme of Examination –

#### The following shall be the scheme of Examination

The Question paper in each Semester for each theory course (paper) for B. Com. Semester I, II, III & IV shall be of 50 marks. The question paper for Environmental Studies for Semester IV shall be of 70 marks for theory and 30 marks for project work. For B. Com. Semester V & VI question paper shall be of 40 marks for each theory course (paper).

#### The following shall be the scheme of Internal Assessment

There shall be continuous Internal Assessment for B.Com. Sem V & VI. Internal Examination/ assessment shall be compulsory for all students. If a student fails/remains absent in Internal Examination then candidate shall have to clear the Internal Examination in subsequent attempt/s in following semester.

**For B. Com. Sem V & VI** – There will be seminar of 10 marks in Semester V and there will be oral examination for Semester VI for each theory course (paper).

4. **Duration of Semester Examination for each theory paper** - The duration of Semester Examination for each theory course (paper) of 40/50 marks shall be of two hours except Environmental Studies (Semester IV, Examination) which shall be of 3 hrs. for 70 marks.
5. **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. Part I – Sem I & II. After this the students concerned shall have to appear for the Examination as per this revised CBCS Pattern. Equivalence of papers shall be provided as per revised syllabus for CBCS pattern.
6. **Standard of Passing-** The Standard of passing shall be 35%. For B. Com. Semester I, II, III & IV the student shall have to score 18 marks out of 50 in each theory paper. Only for Environmental Studies (Semester IV, Examination) the Student shall have to score marks 25 marks out of 70 in theory paper and 11 marks out of 30 for project work. For B. Com. Semester V and VI, the student will have to score 14 marks out of 40 in each theory paper and 4 marks out of 10 in each paper (internal). There shall be a separate head of passing in Theory and Internal Examination. However, ATKT rules shall be made applicable in respect of Theory Paper (University examination) only.
7. **Gradation Chart :**

Marks Obtained	Numerical Grade (Grade Point)	CGPA	Letter Grade
Absent	0 (zero)	-	-
0 – 34	0 (zero)	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  $\geq 0.5$  shall be rounded off to next higher digit.
2. The SGPA & CGPA shall be rounded off to 2 decimal points.
3. Marks obtained in 50 marks or 200 marks paper shall be converted to 100 marks.

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## ii) Structure of B. Com. Programme Sem III & IV

STRUCTURE - II													
SEMESTER- III - DURATION: 06 MONTHS													
Sr. No.	Course Type	TEACHING SCHEME						EXAMINATION SCHEME					
		THEORY (TH)			PRACTICAL (PR)			THEORY			PRACTICAL		
		No. of lectures	Hours	Credits	No. of lectures	Hours	Credits	PAPER HOURS	MAX	MIN	PRACT. HOURS	MAX	MIN
1	CC	4	3.2	4	NO PRACTICAL FOR THIRD SEMESTER			2	50	18	NO PRACTICAL EXAMINATION FOR THIRD SEMESTER		
2	CC	4	3.2	4				2	50	18			
3	CC	4	3.2	4				2	50	18			
4	CC	4	3.2	4				2	50	18			
5	AECC	4	3.2	4				2	50	18			
6	AECC	4	3.2	4				2	50	18			
7	AECC	2	1.6	--	--	--	--	--	--	--	--	--	--
		26	20.8	24	-	-	-	TOTAL MARKS	300	----			
SEMESTER- IV - DURATION: 06 MONTHS													
Sr. No.	Course Type	TEACHING SCHEME						EXAMINATION SCHEME					
		THEORY (TH)			PRACTICAL (PR)			THEORY			PRACTICAL		
		No. of lectures	Hours	Credits	No. of lectures	Hours	Credits	PAPER HOURS	MAX	MIN	PRACT. HOURS	MAX	MIN
1	CC	4	3.2	4	NO PRACTICAL FOR FOURTH SEMESTER			2	50	18	NO PRACTICAL EXAMINATION FOR FOURTH SEMESTER		
2	CC	4	3.2	4				2	50	18			
3	CC	4	3.2	4				2	50	18			
4	CC	4	3.2	4				2	50	18			
5	AECC	4	3.2	4				2	50	18			
6	AECC	4	3.2	4				2	50	18			
7	AECC	2	1.6	4				3	70 + 30 (Project)		30 Marks Project Total 100 Marks.		
-		26	20.8	28				TOTAL MARKS	400	----			
-	Grand Total Sem III + IV	52	41.6	52					700	----			

**Note :**

1. CC : Core Course : All courses (subjects) are compulsory.
2. AECC : Ability Enhancement Compulsory Course : All courses (subjects) are compulsory.



**Shivaji University, Kolhapur**  
**Second year undergraduate compulsory course in**  
**ENVIRONMENTAL STUDIES**  
**Syllabus**

1. **Nature of Environmental Studies.** (4 lectures)  
Definition, scope and importance.  
Multidisciplinary nature of environmental studies  
Need for public awareness.
2. **Natural Resources and Associated Problems.** (4 lectures)
  - a) Forest resources: Use and over-exploitation, deforestation, dams and their effects on forests and tribal people.
  - b) Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams benefits and problems.
  - c) Mineral resources: Usage and exploitation. Environmental effects of extracting and using mineral resources.
  - d) Food resources: World food problem, changes caused by agriculture effect of modern agriculture, fertilizer-pesticide problems.
  - e) Energy resources: Growing energy needs, renewable and non-renewable energy resources, use of alternate energy sources. Solar energy, Biomass energy, Nuclear energy.
  - f) Land resources: Solar energy, Biomass energy, Nuclear energy, Land as a resource, land degradation, man induced landslides, soil erosion and desertification.Role of an individuals in conservation of natural resources.
3. **Ecosystems** (6 lectures)  
Concept of an ecosystem.  
Structure and function of an ecosystem.  
Producers, consumers and decomposers.  
Energy flow in the ecosystem.  
Ecological succession.  
Food chains, food webs and ecological pyramids.  
Introduction, types, characteristics features, structure and function of the following ecosystem :-
  - a) Forest ecosystem, b) Grassland ecosystem, c) Desert ecosystem,
  - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).
4. **Biodiversity and its conservation** (6 lectures)  
Introduction- Definition: genetic, species and ecosystem diversity.  
Bio-geographical classification of India.  
Value of biodiversity: consumptive use, productive use, social, ethical, aesthetic and option values.  
India as a mega- diversity nation.  
Western Ghat as a biodiversity region.  
Hot-spot of biodiversity.  
Threats to biodiversity habitat loss, poaching of wildlife, man- wildlife conflicts.  
Endangered and endemic species of India.  
Conservation of biodiversity: In-situ and Ex-situ conservation of



biodiversity.

5. **Environmental Pollution** (6 lectures)  
 Definition: Causes, effects and control measures of: Air pollution, Water pollution, soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards.  
 Solid waste Management: Causes, effects and control measures of urban and industrial wastes. Role of a individual in prevention of pollution.
6. **Social Issues and the Environment** (8 lectures)  
 Disaster management: floods, earthquake, cyclone, tsunami and landslides.  
 Urban problems related to energy  
 Water conservation, rain water harvesting, watershed management  
 Resettlement and rehabilitation of people; its problems and concerns.  
 Environmental ethics: Issue and possible solutions.  
 Global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust.  
 Wasteland reclamation.  
 Consumerism and waste products.
7. **Environmental Protection** (8 lectures)  
 From Unsustainable to Sustainable development.  
 Environmental Protection Act.  
 Air (Prevention and Control of Pollution) Act.  
 Water (Prevention and control of Pollution) Act.  
 Wildlife Protection Act.  
 Forest Conservation Act.  
 Population Growth and Human Health, Human Rights.
8. **Field Work** (10 lectures)  
 Visit to a local area to document environmental assets-  
 River/Forest/Grassland/Hill/Mountain,  
 or  
 Visit to a local polluted site - Urban / Rural / Industrial /Agricultural.  
 or  
 Study of common plants, insects, birds.  
 or  
 Study of simple ecosystems - ponds, river, hill slopes, etc.

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- 5) Cunningham, W.P. Cooper, T.H.Gorhani, E. & Hepworth, M.T.2001, Environmental Encyclopedia, Jaico Pub. Mumbai, 1196p
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- 7) Down to Earth , Centre for Science and Environment , New Delhi.(R)
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- 16) Sharma B.K., 2001, Environmental Chemistry, Gokel Publ. Hkouse, Meerut
- 17) Survey of the Environment, The Hindu (M)
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- 19) Trivedi R.K. Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, vol. I and II, Environmental Media (R)
- 20) Trivedi R.K. and P.K. Goel, Introduction to air pollution, Techno-Science Publications (TB)
- 21) Wagner K.D.,1998, Environmental management, W.B. Saunders Co. Philadelphia, USA 499p.
- 22) Paryavaran shastra – Gholap T.N.
- 23) Paryavaran Sahastra - Gharapure

(M) Magazine

(R) Reference

(TB) Textbook





**Dr. B. M. Hirdekar**  
Controller of  
Examinations

**SHIVAJI UNIVERSITY, KOLHAPUR- 416 004, MAHARASHTRA**

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Ref. No. : SU/EXAM/ON DYR/12-13/ २०२४

DATE : 7-Aug-13 at 4:51:33 PM

प्रति,

प्राचार्य/संचालक,

सर्व संलग्नित महाविद्यालये व परिसंस्था,

**संदर्भ : पर्यावरण अभ्यास या द्वितीय वर्षाच्या सक्तीच्या पेपरबाबत.**

महोदय,

वरील विषयासंदर्भात आदेशान्वये कळविण्यात येते की, मार्च/एप्रिल-१३ मध्ये झालेल्या द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरमध्ये अनेक विद्यार्थी अनुत्तीर्ण झाले असल्याचे पालक व विद्यार्थी आणि प्राचार्य यांनी निदर्शनास आणून दिल्यानंतर सदर बाब अधिकार मंडळापुढे ठेवण्यात आली व त्याअनुषंगाने खालीलप्रमाणे सुधारणा करण्यात आली आहे.

- द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरमध्ये थेअरी व प्रोजेक्ट व व्हायवा असे तीन स्वतंत्र कॉपोनंट आहेत व त्याचे पासिंग हेडही स्वतंत्र होते. सध्या निर्माण झालेली परिस्थिती विचारात घेता सदर पासिंग हेड एकत्र करण्यात आली असून १०० पैकी ४० गुण ज्या विद्यार्थ्यांना प्राप्त झाले आहेत, त्यांना सुधारित श्रेणी सी देण्यात येणार आहे.
- मात्र जे विद्यार्थी थेअरी व प्रोजेक्ट व व्हायवा यापैकी कोणत्याही हेडला गैरहजर किंवा प्राप्त झालेले गुण धून्य असतील तर असे विद्यार्थी अनुत्तीर्ण म्हणजेच सी ग्रेडसाठी अपात्र ठरतील.
- सुधारित श्रेणीचे मार्कलिस्ट स्वतंत्रपणे देण्यात येणार नाही. सध्या त्यांची यादी व लेजरपान त्या त्या महाविद्यालयाकडे पाठविण्यात येईल.
- ऑक्टोबर-१३ मध्ये होणा-या परीक्षेच्या मार्कलिस्टमध्ये सदर सुधारित श्रेणी दर्शविण्यात येईल.
- अंतीम वर्षाच्या ज्या विद्यार्थ्यांची वर उल्लेख केल्याप्रमाणे श्रेणी सुधारित होईल त्यांचा तपशील परस्पर पदवीदान विभागाकडे कळविता जाईल. जेणेकरून त्यांची पदवी त्यांना देता येईल.
- सदरचे बदल सर्व विद्याशाखांमधील द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरसाठी लागू राहतील.

तरी वरील बाबी सर्व संबंधित विद्यार्थ्यांच्या निदर्शनास आणाव्यात व सोबतच्या नमुन्यात अशा अनुत्तीर्ण विद्यार्थ्यांची यादी त्या त्या परीक्षा विभागास सत्वर कळवावी.  
कळावे.

आपला विश्वासू,

*(Signature)*

डॉ. बी.एम. हिर्डेकर  
परीक्षा नियंत्रक

प्रत :-

- मध्यवर्ती मूल्यमापन विभागास,
- परीक्षक नियुक्ती विभागास,
- संगणक केंद्र विभागास,
- परीक्षा गोदाम पडताळणी विभागास,
- सर्व परीक्षा विभागप्रमुखांना

प्राचार्यांची सही व शिक्का



प्रति—

12.6.15 1. अधिष्ठाता, सर्व विद्याशाखा

2. अध्यक्ष, अभ्यास/अस्थायी मंडले (सर्व विद्याशाखा)

3. स्वीय सहाय्यक, मा.कुलसचिव, संचालक बीसीयुडी व परीक्षा नियंत्रक

# SHIVAJI UNIVERSITY, KOLHAPUR



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**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 शिक्षकांच्या 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, गृहीतके, 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 ठेवणे आवश्यक आहे.

# **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।

# **SHIVAJI UNIVERSITY, KOLHAPUR.**



Accredited By NAAC with 'A' Grade

Revised Syllabus For

**B.Sc Part- III**

**English (Compulsory)**

Syllabus to be implemented from

June, 2020 onwards.

Shivaji University, Kolhapur



**B. Sc. 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 them 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 C**

**MODULE I**

- A. Interview Skills
- B. Enterprise - Nissim Ezekiel

**MODULE II**

- A. E-Communication
- B. The Ant and the Grasshopper – W.S. Maugham

**MODULE III**

- A. English for Competitive Examinations
- B. The Look-Out Man - Nicholas Bentley

**MODULE IV**

- A. Forgetting Our Own History - Sudha Murty
- B.(i) The Butterfly – Arun Kolatkar
- (ii) For Your Lanes, My Country -- Faiz Ahmed Faiz

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



**SEMESTER VI**

**AECC D**

**MODULE V**

- A. Group Discussion
- B. Evolution - Alexie Sherman Alexie

**MODULE VI**

- A. Note Making and Note Taking
- B. Gateman's Gift - R. K. Narayan

**MODULE VII**

- A. Media Writing
- B. Karma - Khushwant Singh

**MODULE VIII**

- A. Bhaurao in America – P. G. Patil
- B. (i) The Grass is Really Like Me- Kishwar Naheed  
(ii) To Granny – Tejaswini Patil

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

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

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# **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
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- To enable students to learn manners and etiquettes required at workplace
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- 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**

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# 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
<b>Sem V</b>	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
<b>Sem-VI</b>	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

# **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)

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**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	<b>AUGUSTE COMTE</b> A) Law of Three Stages B) Concept of Positivism. C) Social Statics and Social Dynamics.	15	1
Module -II	<b>KARL MARX</b> A) Dialectical Materialism B) Theory of Class Conflict C) Theory of Alienation	15	1



<b>Module -III</b>	<b>EMILE DURKHEIM</b> A) The Study of Social Facts B) Theory of Division of Labour C) Theory of Suicide	<b>15</b>	<b>1</b>
<b>Module -IV</b>	<b>MAX WEBER</b> A) The Ideal Type B) Theory of Social Action C) Types of Authority.	<b>15</b>	<b>1</b>

#### **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**

## **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.



**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



SHIVAJI UNIVERSITY, KOLHAPUR



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



# **SHIVAJI UNIVERSITY, KOLHAPUR.**



Accredited By NAAC with 'A' Grade

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)  
Sem-V**

**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.

DSE-E106 or VII, Evolution of Geographical Thought

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	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





**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-E235 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.
23. Khan MD. Zulfequar Ahmad : Text Book of Practical Geography, Concept Publishing Company, New Delhi, 1998
24. Mishra, R.P. and Ramesh A. : Fundamentals of Cartography, Concept Publishing Company, New Delhi, 2000
25. Monkhouse F.J. and Wilkison, H.R.: Maps and Diagrams, Mathuen. London, 1971.
26. Negi, , Dr. Balbir Singh : Practical Geography, Kedar Nath Ram Nath, Meerut, Delhi.
27. Raisz, E.: Principals of Cartography, McGraw Hill Book Com., Inc, New York, 1962.
28. Robinson, A.H. and Sale, S.D.: Elements of Cartography, John Witey and Sons, Inc, New York, 1969.



# **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.**



- **Group – V-B**

1. Radius of Capillary bore using mercury thread
2. Determination of lattices 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, 4<sup>th</sup> Edition, reprinted 1985, Heinemann Educational Publishers
3. A Text Book of Practical Physics, Indu Prakash and Ramakrishna, 11<sup>th</sup> 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.

# **SHIVAJI UNIVERSITY, KOLHAPUR.**



**Accredited By NAAC with 'A' Grade**

**Revised Syllabus For**

**B.Sc Part- III**

**Chemistry**

**Syllabus to be implemented from**

**June, 2020 onwards.**



### 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 ( $\text{Fe}_2\text{O}_3$ ) 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

- 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**



# **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)**

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**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



# **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



# **SHIVAJI UNIVERSITY, KOLHAPUR**



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**Accredited By NAAC with 'A' Grade**

**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

# **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)





### **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
<b>Total Marks</b>	:	<b>100marks</b>

#### 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 black 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.**



"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
	<b>SEMESTER V</b>	
1.	Course – IX	40+10
2.	Course – X	40+10
3.	Course – XI	40+10
4.	Course – XII	40+10
	<b>SEMISTER VI</b>	
5.	Course – XIII	40+10
6.	Course – XIV	40+10
7.	Course – XV	40+10
8.	Course – XVI	40+10
	<b>PRACTICAL COURSE</b>	
9	Practical – I	50
10	Practical – II	50
11	Practical – III	50
12	Practical – IV	50
Total		600





**Dr. B. M. Hirdekar**  
Controller of  
Examinations

**SHIVAJI UNIVERSITY, KOLHAPUR-416 004, MAHARASHTRA**

PHONE : EPABX- 2609000 (10 Lines), 2693643 (9 Lines), 2693730 (9 Lines)

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PHONE : (Direct) 2693176, 2609067

Website : www.unishivaji.ac.in

FAX : (Direct) 0091-0231-2690655

E-mail : coe@unishivaji.ac.in



Ref. No. : SU/EXAM/ON DYR/12-13/2024

DATE : 7-Aug-13 at 4:51:33 PM

प्रति,

प्राचार्य/संचालक,

सर्व संलग्नित महाविद्यालये व परिसंस्था,



संदर्भ : पर्यावरण अभ्यास या द्वितीय वर्षाच्या सक्तीच्या पेपरबाबत..

महोदय,

वरील विषयासंदर्भात आदेशान्वये कळविण्यात येते की, मार्च/एप्रिल-१३ मध्ये झालेल्या द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरमध्ये अनेक विद्यार्थी अनुत्तीर्ण झाले असल्याचे पालक व विद्यार्थी आणि प्राचार्य यांनी निदर्शनास आणून दिल्यानंतर सदर बाब अधिकार मंडळापुढे ठेवण्यात आली व त्याअनुषंगाने खालीलप्रमाणे सुधारणा करण्यात आली आहे.

- द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरमध्ये येअरी व प्रोजेक्ट व व्हायवा असे तीन स्वतंत्र कॉपीनंट आहेत व त्याचे पॉसिंग हेडही स्वतंत्र होते. सध्या निर्माण झालेली परिस्थिती विचारात घेता सुदर पॉसिंग हेड एकत्र करण्यात आली असून १०० पैकी ४० गुण ज्या विद्यार्थ्यांना प्राप्त झाले आहेत, त्यांना सुधारित श्रेणी सी देण्यात येणार आहे.
- मात्र जे विद्यार्थी येअरी व प्रोजेक्ट व व्हायवा यापैकी कोणत्याही हेडला गैरहजर किंवा प्राप्त झालेले गुण शून्य असतील तर असे विद्यार्थी अनुत्तीर्ण म्हणजेच सी ग्रेडसाठी अपात्र ठरतील.
- सुधारित श्रेणीचे मार्कलिस्ट स्वतंत्रपणे देण्यात येणार नाही. सध्या त्यांची यादी व लेजरपान त्या त्या महाविद्यालयाकडे पाठविण्यात येईल.
- ऑक्टोबर-१३ मध्ये होणा-या परीक्षेच्या मार्कलिस्टमध्ये सदर सुधारित श्रेणी दर्शविण्यात येईल.
- अंतीम वर्षाच्या ज्या विद्यार्थ्यांची वर उल्लेख केल्याप्रमाणे श्रेणी सुधारित होईल त्यांचा तपशील परस्पर पदवीदान विभागाकडे कळविला जाईल. जेणेकरून त्यांची पदवी त्यांना देता येईल.
- सदरचे बदल सर्व विद्याशाखांमधील द्वितीय वर्षाच्या पर्यावरण अभ्यास या सक्तीच्या पेपरसाठी लागू राहतील.

तरी वरील बाबी सर्व संबंधित विद्यार्थ्यांच्या निदर्शनास आणाव्यात व सोबतच्या नमुन्यात अशा अनुत्तीर्ण विद्यार्थ्यांची यादी त्या त्या परीक्षा विभागास सत्वर कळवावी.

कळावे,

शिंदे  
श. भुरग

विद्यार्थ्यांच्या सी ग्रेड सुधारित झाले आहे.

आपला विश्वासू,

18/8

डॉ. बी.एम. हिर्देकर  
परीक्षा नियंत्रक

10.8.13  
प्रति :-

- मध्यवर्ती मूल्यमापन विभागास,
- परीक्षक नियुक्ती विभागास,
- संगणक केंद्र विभागास,
- परीक्षा गोदाम पडतळणी विभागास,
- सर्व परीक्षा विभागप्रमुखांना

P.T.O.