



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 ०२३१-२६०९०९४



संदर्भ : जा.क्र./शिवाजी वि./अ.मं./538

दि. ०८/०९/२०२५

प्रति,

मा. प्राचार्य/संचालक,  
सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,  
शिवाजी विद्यापीठ, कोल्हापूर

**विषय : बी.कॉम. (आय.टी.), भाग 2 सेमिस्टर 3 व 4 (NEP 2.0) च्या  
अभ्यासक्रमातील किरकोळ दुरुस्तीबाबत.**

**संदर्भ : या कार्यालयाचे पत्र एसयु/बीओएस/कॉमर्स अँड मॅनेजमेंट/264  
दि.03/05/2025.**

महोदय,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, राष्ट्रीय शैक्षणिक धोरण, 2020 (NEP 2.0) नुसार शैक्षणिक वर्ष 2025-26 पासून लागू करण्यात आलेल्या बी.कॉम. (आय.टी.), भाग 2 सेमिस्टर 3 व 4 कोर्सच्या अभ्यासक्रमामध्ये किरकोळ दुरुस्ती करण्यात आलेली आहे. सोबत सदर अभ्यासक्रमाची प्रत जोडली आहे. तसेच विद्यापीठाच्या [www.unishivaji.ac.in](http://www.unishivaji.ac.in) (Online Syllabus) या संकेतस्थळावर ठेवण्यात आला आहे.

सदर अभ्यासक्रम सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावा ही विनंती.

कळावे,

आपला विश्वासू

उपकुलसचिव

प्रत :

10. मा. प्र.अधिष्ठाता, वाणिज्य व व्यवस्थापन विद्याशाखा
11. मा. अध्यक्ष, सर्व अभ्यास मंडळे, वाणिज्य व व्यवस्थापन विद्याशाखा
12. मा. संचालक, परीक्षा व मूल्यमापन मंडळ कार्यालयास.
13. मा. संचालक, दूरस्थ व ऑनलाईन शिक्षण केंद्र.
14. परीक्षक नियुक्ती ए व बी विभागास.
15. बी.कॉम परीक्षा विभागास.
16. संगणक केंद्र/आय. टी. सेल विभागास.
17. पात्रता विभागास/आय.क्यु.ए.सी. विभागास
18. संलग्नता टी 1 व टी 2 विभागास

माहितीसाठी व पुढील योग्य त्या कार्यवाहीसाठी



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**शिवाजी विद्यापीठ, कोल्हापूर - ४१६००४, महाराष्ट्र**

दूरध्वनी-ईपीएबीएक्स - २६०९०००, अभ्यासमंडळे विभाग दूरध्वनी ०२३१-२६०९०९४



**Ref./SU/BOS/Com & Mgt./ 264**

**Date : 03/05/2025**

To,

The Principal  
All Affiliated (Commerce & Management) Colleges/ Institutions,  
Shivaji University, Kolhapur

**Subject : Regarding syllabi of B. Com. Part-II Information Technology (IT)  
(Sem. III & IV) 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-II Information Technology (IT) (Sem. III & IV) (CBCS)** under the Faculty of Commerce & Management as per National Education Policy, 2020

This syllabi shall be implemented from the academic year **2025-2026** onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website [www.unishivaji.ac.in](http://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 2025 & March/ April, 2026. These chances are available for repeater students, if any.

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**

**for Information and necessary action**

**Copy to:**

1	Dean, Faculty of Commerce & Management	6	Appointment Section A & B
2	Director, Board of Examinations and Evaluation	7	I.T.Cell /Computer Centre
3	Chairman, Respective Board of Studies	8	Eligibility Section
4	B. Com. Section	9	Affiliation Section (T.1) (T.2)
5	Internal Quality Assurance Cell (IQAC Cell)	10	P.G. Seminar Section

# **SHIVAJI UNIVERSITY, KOLHAPUR.**



Estd. 1962

NAAC "A++" Grade

**Faculty of Commerce and Management**

Syllabus For

**B.COM. Part-II**

**Information Technology (IT) (Sem-III &IV)**

Syllabus as per National Education Policy (NEP 2020)

**To be implemented from June 2025**

(Subject to the modifications that will be made from time to time)

**Structure: Four Year Multidisciplinary Under Graduate B. Com. IT Degree Programme (Honors and Research)**

Year and Level	Semester	Major		Minor DSM  <i>(Choose any One from pool of courses from same Discipline)</i>	OE (There are Two Baskets of GE)  <i>(Select One course from each Basket of other Disciplines or Faculty)</i>	VSC, SEC, VSEC  <i>(Choose any One from pool of Major)</i>	AEC, VEC, IKS	OJT, FP, CEP, CC, RP	Cumulative Credit Per Semester	Degree Per Cumulative Credit
2 5.0	III	<b>DSC7:(2)</b> Programming with C++  <b>DSC8: (4)</b> Accounting with Tally  <b>DSC9:(2)</b> Lab on DSC7	--	<b>DSM2: (4)</b> Fundamental of Entrepreneurship	<b>OE5: (2)</b> Statistics P-I/ Rural Development P-I / Agricultural Economics P-I	<b>VSC3: (2)</b> Web Technology-I	<b>AEC3: (2)</b> Communication and Soft Skills P-I	<b>CEP1: (2)</b> Community Engagement Project  <b>CC3: (2)</b> (NSS/NCC/ Sports/Culture/ Health Wellness/ Fitness/Yoga/Etc ..	22	UG Diploma 88
	IV	<b>DSC10: (2)</b> DBMS  <b>DSC11: (4)</b> Computer Networking  <b>DSC12:(2)</b> Lab on DSC10	--	<b>DSM3: (4)</b> Money and financial system	<b>OE6: (2)</b> Statistics P-II/ Rural Development P- II /Agricultural Economics P- II	<b>SEC3: (2)</b> Web Technology-II	<b>AEC4: (2)</b> Communication and Soft Skills P-II  <b>VEC3: (2)</b> (Env. Studies)	<b>CC4: (2)</b> (NSS/NCC/ Sports/Culture/ Health Wellness/ Fitness/Yoga/Etc..	22	
	Cum. Cr	28	--	10	12	12	14	12	88	
Exit Option : Award of UG Diploma in Major with 88 credits and an additional 4 credits core NSQF course/Internship or Continue with Major and Minor										



**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**  
**B.Com. IT Major SEMESTER – III**

<b>DSC7</b>	<b>Programming with C++</b>	<b>Credit: 02</b>
<b>Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50</b>		
<b>Course Outcome</b>	After completion of this course students will able to - 1) Understand basics of object-oriented programming using C++ 2) Apply the concepts of inheritance and polymorphism through C++	
<b>Unit I</b>	<b>Introduction to C++</b> Basic Concepts of OOP, Benefits & Features of OOP, Structure of C++ Program, Data types, Keywords and Operators, this pointer, Control Structure – Conditional and Looping statement. Class Declaration, Declaration and Definition of a Constructor & Destructor, Function Declaration and Definition (Inside class and outside the class using scope Resolution Operator), Calling Functions, Inline Functions, Friend Function.	<b>15</b>
<b>Unit II</b>	<b>Inheritance and Polymorphism</b> Concept of Inheritance: Base Class & Derived Class, Types of Inheritance (Single, Multiple, Hierarchical, Multilevel, Hybrid Inheritance) Concept of Polymorphism: Static Polymorphism and Dynamic Polymorphism, Function overloading and overriding, Virtual Functions and Pure Virtual Function	<b>15</b>
<b>Books Recommended:</b> 1) The C++ Programming Language, 4th Edition by Bjarne Stroustrup 2) Object Oriented Programming with C++ by E. Balagurusamy 3) Let Us C++ by Yashavant P. Kanetkar 4) C++: The Complete Reference by Herbert Schildt		

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40 Standard of Passing: 16 Marks (40%) Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

Qu.1) Broad answer questions (Any ONE out of TWO)	16
Qu.2) Short answer questions (Any TWO out of THREE)	14
Qu.3) Write notes on (Any TWO out of FOUR)	10

**Internal Marks Distribution:**

**Total Marks: 10 Standard of Passing: 4 Marks (40%)**

1 Five Marks for Mid Tests.

2 Five Marks for Assignments / presentation or activity based learning/ Group exercise

(Number of students in Group are not more than six)/ Laboratory work/ Library work)

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – III**

<b>DSC8</b>	<b>Accounting with Tally</b>	<b>Credit: 04</b>
<b>Marks: Semester End: 80 Internal Assessment: 20 Total Marks: 100</b>		
<b>Course Outcome</b>	After completion of this course students will able to – 1. Use basic accounting procedures for maintaining financial records. 2. Understand the significance of financial statements 3. Learn to create company and enter accounting voucher entries in Tally 4. Demonstrate reports for different financial statements in Tally.	
<b>Unit I</b>	<b>Introduction to Financial Accounting</b> Meaning and Definition of Financial Accounting, Objectives of Accounting, Various users of Accounting Information, Accounting Terminologies, Accounting Concepts and Conventions, Double entry system, Types of Accounts and Golden rules of accounting. Books of Prime Entry, Subsidiary Books and Ledger Creation.	<b>15</b>
<b>Unit II</b>	<b>Preparation of Financial Statements</b> Trial Balance – Meaning, Definition, purpose and features, preparation of Trial Balance. Final Accounts – Introduction, Objectives of Final Accounts, Preparation of Trading Account, Profit and Loss Account, Balance Sheet.	<b>15</b>
<b>Unit III</b>	<b>Introduction to Tally</b> Tally History and Journey, Difference between manual accounting v/s computerized accounting, Tally features, Tally Fundamentals – Company Data – Gateway of Tally, Creating and Maintaining a Company, Loading a Company, Ledger creation and Voucher Entry	<b>15</b>
<b>Unit IV</b>	<b>Report Generation in Tally</b> Printing Configuration for vouchers, Printing reports – Day Book, Profit and Loss A/C, Balance Sheet, etc. Data Management – Backup & restore, Split a Company, Import and Export of Data	<b>15</b>
<b>Books Recommended:</b> 1. Anthony, RN. and Reece. J.S.: Accounting Principles: Richard Irwin Inc. 2. Gupta. R.L.and Radhaswamy. M: Financial Accounting; Sultan Chand and Sons 3. Shukla. M.C., Grewal T.S., and Gupta, S.C.: Advanced Accounts: S.Chand & Co. 4. Advance Accountancy:- Maheshwari 5. Advance Accountancy:- R.L.Gupta 6. Computerized Financial Accounting Using Tally - Rajan Chougale		

**Nature of question paper for four credit University End Semester Examination**

**Total Marks: 80 Standard of Passing: 32 Marks (40%) Duration: 3Hrs**

Instructions: 1) Que.1 and Que. 8 are compulsory and attempt any three Questions from Que. No.2 to Que. No. 7.

2) Figures to the right indicate marks.

Qu.1) Multiple Choice Questions (12 questions for 1 mark each)	12
Qu.2) Broad answer question	16
Qu.3) Broad answer question	16
Qu.4) Broad answer question	16
Qu.5) Broad answer question	16
Qu.6) Broad answer question	16
Qu.7) Broad answer question	16
Qu.8) Write notes on (Any Four out of Six)	20

**Internal Marks Distribution:**

1 Ten Marks for Mid Tests.

2 Five Marks for presentation or activity based learning or Group exercise  
(Number of students in Group are not more than six).

3 Five Marks for Assignments.

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**  
**B.Com. IT Major SEMESTER – III**

DSC9	Lab on DSC7	Credit: 02
Marks: Semester End: 50 Total Marks: 50		
Course Outcome	After completion of this course students will be able to - 1) Apply the concepts of object-oriented programming using C++ 2) Implement the concept of inheritance and polymorphism using C++	
List of Practical's:		
1. Use of operators in C++. 2. Illustrate Control Structures. 3. Create a class and creating an object. 4. Create constructors – default, parameterized, copy. 5. Demonstrate declaration and definition of function. 6. Illustrate different Access Specifiers. 7. Illustrate inline function. 8. Define Member function-outside the class using Scope Resolution Operator. 9. Illustrate friend function. 10. Illustrate Inheritance – single, multiple and multilevel. 11. Perform static and dynamic polymorphism. 12. Demonstrate virtual & pure virtual function.		

**Nature of Practical Question Paper:**

**Total Marks: 50 Standard of Passing: 20 Marks (40%)**

There will be three questions of 15 Marks each, out of which student have to attempt any two Questions.

10 marks for journal and 10 marks for oral.

Time duration is three hours.

Practical Examination should be conducted by the University appointed examiner panel



**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**  
**B.Com. IT Major SEMESTER – III**  
**DSM-II Fundamental of Entrepreneurship Credits: 4**  
**Marks: Semester End:80 Internal Assessment:20 Total Marks: 100**  
**Introduced from June 2025**

**COURSE OUTCOMES:**

After completion of this course student should be able to

1. Understand the types of entrepreneurs and the importance of women entrepreneurs.
2. Analyze the Business Opportunities and prepare business plan
3. Identify finance agencies for entrepreneurship project.
4. Understand new Opportunities and Challenges in digital entrepreneurship

Unit No.	Contents	No. of Hours
<b>1</b>	<b>Introduction to Entrepreneurship:</b> Evolution, Concept and definition of an entrepreneur, Characteristics, functions and types of entrepreneurs, Qualities of an Entrepreneur, Growth of Entrepreneurship in India, Role of Entrepreneurship in Economic Development, Entrepreneurship development process, Women Entrepreneurship in India, problems faced by women Entrepreneurs	<b>15</b>
<b>2</b>	<b>Business Opportunity Identification:</b> Search for Business Ideas, Market Assessment, Sources of Information and Environmental Analysis, Feasibility analysis-Market, Technical, finance, economic and social Entrepreneurial opportunities in India, Business Opportunity identification and selection.	<b>15</b>
<b>3</b>	<b>Business Plan Preparation and Project Finance</b> Meaning of Business plan, Significance and Contents of a Business Plan, developing Business Plan and Presenting Business Plan. Preparation of project report, project life cycle, Project Finance: Introduction, Types of Finance – equity finance, Debt finance, Sources of Finance, Venture Capital, Start-up and Make-in-India program, MUDRA Support Agencies: Support to Entrepreneurs by DIC, SIDBI, SIDCO. Entrepreneurship promotion by Government through various schemes.	<b>15</b>
<b>4</b>	<b>Digital Entrepreneurship:</b> Meaning and Introduction, New Opportunities and Challenges. Choosing a Digital Business Idea, importance of digital marketing for entrepreneurs Creating a Digital Business Design. Digital Business Model. Digital business platforms. Different Electronic interface to consumers. Components of business website. IT Entrepreneurs: Azim Premji, N.R. Narayan Murthy, Shiv Nadar, Mark Zuckerberg, Steve Jobs	<b>15</b>
	<b>References Books:</b> 1. Entrepreneurship Development (1st Edition 2021) – Abha Mathur - Taxmanns 2. Entrepreneurial Development – Dr C.B. Gupta & Dr. N. P.	

	<p>Srinivasan (Jan 2020) – Sultanch and and sons</p> <p>3. Dr. Dilip Sarwate, Entrepreneurship Development and Project Management, Everest Publishing house</p> <p>4. Vasant Desai, Dynamics of Entrepreneurship development and Management, Himalaya Publishing House</p> <p>5. David H Holt, Entrepreneurship and New Venture Creation, Prentice Hall</p> <p>6. Paul Ajit Kumar, Paul, Entrepreneurship Development, Himalaya Publishing House Mumbai</p> <p>7. Raj Shankar – Entrepreneurship: Theory and Practical – Vijay Nicole Imprints Pvt. Ltd.</p> <p>8. S.S. Khanka – Entrepreneurial Development – S. Chand and Company LTD, New Delhi</p> <p>9. Enterprise Resource Planning by Singla Edition-02 Cengage Publication</p> <p><b>Websites :</b></p> <p><a href="http://www.startupindia.gov.in">www.startupindia.gov.in</a></p> <p><a href="http://www.india.gov.in">www.india.gov.in</a></p> <p><a href="http://www.makeinindia.com/home">http://www.makeinindia.com/home</a></p> <p><a href="https://sites.fuqua.duke.edu/dukeven/selected-topics/the-entrepreneurialprocess/">https://sites.fuqua.duke.edu/dukeven/selected-topics/the-entrepreneurialprocess/</a></p> <p><a href="https://digitalskills.unlv.edu/digital.marketing/">https://digitalskills.unlv.edu/digital.marketing/</a></p>	
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### **Nature of question paper for four credit University End Semester Examination**

**Total Marks: 80 Standard of Passing: 32 Marks (40%) Duration: 3Hrs**

Instructions:

- 1) Que.1 and Que. 8 are compulsory and attempt any three Questions from Q.No.2 to Q.No. 7.
- 2) Figures to the right indicate marks.
- Qu.1) Multiple Choice Questions (12 questions for 1 mark each) 12
- Qu.2) Broad answer question 16
- Qu.3) Broad answer question 16
- Qu.4) Broad answer question 16
- Qu.5) Broad answer question 16
- Qu.6) Broad answer question 16
- Qu.7) Broad answer question 16
- Qu.8) Write notes on (Any Four out of Six) 20

### **Internal Marks Distribution:**

- 1 Ten Marks for Mid Tests.
  - 2 Five Marks for presentation or activity based learning or Group exercise (Number of students in Group are not more than six).
  - 3 Five Marks for Assignments.
- (The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy(NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – III</b>  <b>OE5 Statistics P-III Credits :2</b>  <b>Marks: Semester End:40 Internal Assessment:10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...  1. Understand Quantitative techniques and their Managerial applications  2. Understand the basic concepts and scope of Sequencing Problem and Game Theory</p>		
<b>Unit No.</b>	<b>Content S</b>	<b>No. of Hours</b>
<b>1</b>	<p><b>Sequencing Problem</b></p> <p>1.1 Introduction. Statement of problem.</p> <p>1.2 Procedure of processing n jobs on two machines.</p> <p>1.3 Procedure of processing n jobs on three machines and m machines.</p> <p>Computations of elapsed time and idle times.</p> <p>1.4. Examples and problems.</p>	<b>15</b>
<b>2</b>	<p><b>Theory of Game</b></p> <p>1.1 : Introduction</p> <p>1.2: Two Person Zero-Sum Games</p> <p>1.3: Minimax and Maximin Principles</p> <p>1.4: Minimax saddle point Theorems</p> <p>1.5: Mixed strategies : Games without saddle points</p> <p>1.6: Solution Methods of Games without saddle point: Algebraic method and Matrix Method</p>	<b>15</b>

**References:**

1. Sharma S. D.: Operations Research, Eighth edition, Kedarnath Ramnath & Co.
2. Sharma J. K.: Mathematical Models in Operations Research, Tata McGraw Hill Publishing Companies
3. Taha H. A.: Operation research – An Introduction, Eighth edition, Prentice Hall of India, New Delhi
4. Vora N. D.: Quantitative Techniques in Management, Third edition, McGraw Hill Publishing Companies

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40**

**Standard of Passing: 16 Marks (40%)**

**Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

**Question No: 1** **10 marks**

A) Multiple Choice Question 4 Marks

B) True or False 3 Marks

C) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:**

**Total Marks: 10**

**Standard of Passing: 4 Marks (40%)**

<b><i>Particulars</i></b>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
2. Seminar 3. Poster Presentation 4. Role Play 5. Group Discussion 6. Unit Tests 7. Visits 8. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher )</b>

<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy (NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – III</b>  <b>OE5- Rural Development P-I Credits :2</b>  <b>Marks: Semester End:40 Internal Assessment:10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...</p> <ol style="list-style-type: none"> <li>1. understand the importance of rural development.</li> <li>2. analyze the process of rural community development.</li> </ol>		
<b>Unit No.</b>	<b>Contents</b>	<b>No. of Hours</b>
<b>1</b>	Rural Development:- Concept, Objectives, Importance, Nature and Scope; Characteristics of Rural Economy; Concept of Development, Distinction between Development and Growth, Indicators of Development; Prerequisites for Rural Development; Main Obstacles to Rural Development; Factors Governing Rural Development.	<b>15</b>
<b>2</b>	Rural Community Development: Concept of Community, Functions of the Community, Community profile: Process and tool, Concept of community development, Characteristics, Principles and Scope, Panchayati Raj and community development in India	<b>15</b>

**References:**

1. K. Lekhi, The Economics of Development and Planning, Kalyani Publishers, New Delhi.
2. Desai, Vasant. Fundamentals of Rural Development. New Delhi: Rawat Publications, 1991
3. Satya Sundaram, I., Rural Development. Mumbai: Himalaya, 2002.
4. Prasad, B.K. Rural Development: Concept, Approach and Strategy. New Delhi: Sarup & Sons, 2003.
5. Rural Development: Principles, Policies and Management – Katar Singh, (Sage Texts) 3rd Edition

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40**

**Standard of Passing: 16 Marks (40%)**

**Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

**Question No: 1** **10 marks**

D) Multiple Choice Question 4 Marks

E) True or False 3 Marks

F) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:**

**Total Marks: 10**

**Standard of Passing: 4 Marks (40%)**

<b><i>Particulars</i></b>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
2. Seminar 3. Poster Presentation 4. Role Play 5. Group Discussion 6. Unit Tests 7. Visits 8. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher )</b>



<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy (NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – III</b>  <b>OE5- Agricultural Economics P-I Credits :2</b>  <b>Marks: Semester End:40 Internal Assessment:10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...</p> <ol style="list-style-type: none"> <li>1. understand the issues related with agricultural and economic development</li> <li>2. analyze the economics of agricultural production.</li> </ol>		
<b>Unit No.</b>	<b>Content s</b>	<b>No. of Hours</b>
<b>1</b>	<p><b>Agricultural Economics and Theories of Agricultural Development:</b></p> <p><b>1.1:</b> Introduction to Agricultural Economics: Nature &amp; scope of agricultural economics - utility of agricultural economics, role and importance of agriculture in economic development.</p> <p><b>1.2:</b> Demand and supply behaviour in Agriculture: Elasticity of Demand – Approaches to study supply response- factors affecting supply response.</p> <p><b>1.3:</b> Theories of agricultural development: (Schultz, Mellor, Hayami and Ruttan)</p> <p><b>1.4 :</b> Practical and applications: Contemporary Relevance of above Theories</p>	<b>15</b>
<b>2</b>	<p><b>Economics of Agricultural Production: (15 Periods)</b></p> <p><b>2.1:</b> Basic concepts in agricultural Production: Agricultural production visà-vis industrial production – Features of modern agricultural production.</p> <p><b>2.2:</b> Factor- Product Relationship: Meaning &amp; uses of agricultural production function- Agro-technology &amp; production function production function with one variable factor (traditional &amp; modern approach).</p> <p><b>2.3:</b> Factor-Factor Relationship: Optimum factor combination- Effects of changes in factor price on factor usage - Product-Product Relationship: Optimum Product Combination – Types of Enterprises Combinations- Isocline.</p> <p><b>2.4:</b> Practical and applications: Case studies on Agricultural Production Function</p>	<b>15</b>

**References:**

1. Desai R G (2001): Agricultural Economics - Models Problems and Policy Issues, Himalaya Publishing House, Mumbai.
2. Kumar K N R (2015): Agricultural Production Economics, Volume-I, Daya Publishing House, A Division of Astral International Pvt. Ltd, New Delhi.
3. Lekhi R K & Singh Jogindar (2013): Agricultural Economics, Kalyani Publisher, New Delhi.
4. Reddy, Ram, Sastry & Devi (2010): Agricultural Economics Oxford & IBH publishing Co. Pvt. Ltd, New Delhi.

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40**

**Standard of Passing: 16 Marks (40%)**

**Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

**Question No: 1** **10 marks**

G) Multiple Choice Question 4 Marks

H) True or False 3 Marks

I) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:**

**Total Marks: 10**

**Standard of Passing: 4 Marks (40%)**

<b><i>Particulars</i></b>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
9. Seminar 10. Poster Presentation 11. Role Play 12. Group Discussion 13. Unit Tests 14. Visits 15. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher )</b>

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – III**

<b>VSC3</b>	<b>Web Technology-I</b>	<b>Credit: 02</b>
<b>Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50</b>		
<b>Course Outcome</b>	After completion of this course student should be able to- 1. Understand the basics of website and web development life cycle. 2. Design website using different tags of HTML and their attributes	
<b>Unit I</b>	<b>Introduction to Internet &amp; Website</b> 1.1 Basics of Internet 1.2 Introduction to Web Browser and Web Server 1.3 Introduction to World Wide Web (WWW) 1.3 HTTP, DNS, IP Address 1.4 Types of Websites (Static and Dynamic Websites) 1.5 Web Development lifecycle	<b>15</b>
<b>Unit II</b>	<b>Introduction to HTML</b> 2.1 Introduction to HTML, History, Features 2.2. HTML tags & attributes 2.3 HTML Form elements 2.4. HTML Frameset 2.5. Limitations of HTML	<b>15</b>
<b>Books Recommended:</b> 1. Complete HTML-Thomas Powell 2. HTML BlackBook- Steven Holzner		

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40 Standard of Passing: 16 Marks (40%) Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

Qu.1) Broad answer questions (Any ONE out of TWO)	16
Qu.2) Short answer questions (Any TWO out of THREE)	14
Qu.3) Write notes on (Any TWO out of FOUR)	10

**Internal Marks Distribution:**

**Total Marks: 10 Standard of Passing: 4 Marks (40%)**

1 Five Marks for Mid Tests.

2 Five Marks for Assignments / presentation or activity based learning/ Group exercise

(Number of students in Group are not more than six)/ Laboratory work/ Library work)

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**  
**B.Com. IT Major SEMESTER – III**

**AEC-III Communication and Soft Skills Credits: 2**

**Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50**

**Introduced from June 2025**

**Course Objectives**

After learning this course students will be able -

- ☐ To introduce students to the business letters
- ☐ To make students aware of how to write application letters
- ☐ To enable students develop their C.V.
- ☐ To acquaint students with the skills and sub-skills of Interview.

**Course Outcomes**

After completion of this course -

- Students become familiar with the concepts related to business correspondence
- Students are able to write their own C.V.
- Students become well acquainted with writing application letters
- Students know how to face the interview

<b>Ability Enhancement Course (AEC)</b>				
<b>Unit No.</b>	<b>Title of the Unit</b>	<b>Subtitles of the Unit</b>	<b>Hours</b>	<b>Marks</b>
<b>Semester III</b>				
I	Business Correspondence: Inquiry and Reply	1. Putting an Order & its reply 2. Making an inquiry & its reply 3. Customer Complaint & its reply	15	20
II	Writing Application Letter, C.V. and Interview Techniques	1. Characteristics of Application Letter 2. Do's & Don'ts of Interview	15	20
	<b>Total</b>		30	40
<b>Internal Evaluation for 10 Marks</b>				

**Total Teaching Hours: 15 X 2 = 30 hours**

## **QUESTION PAPER PATTERN**

### **Ability Enhancement Course (AEC) (For 40 Marks)**

#### **Semester III**

Q.1-A: Multiple Choice Questions (4 questions) 4 marks

B: Answer in one word/phrase /sentence (4 questions) 4 marks

Q2. A. Question to be set on Business Correspondence: Inquiry and Reply –  
8 Marks

B. Question to be set on Business Correspondence: Inquiry and Reply –  
8 Marks




Q3. A. Question to be set on Writing Application Letter, C.V. and Interview  
Techniques – 8 Marks

B. Question to be set on Writing Application Letter, C.V. and Interview  
Techniques – 8 Marks

**Internal Assessment: 10 Marks**

#### **Reference Books**

- Seely, John. Oxford guide to effective writing and speaking, Oxford University Press, 2013
- Rai, Urmila and S.M. Effective Communication, Himalaya Publication
- Rayudu, C.S. Communication, Himalaya Publication, 2012
- Hammond, Lisa. Dream Big, Jalco Publishing House, Mumbai 2005

 <p>SHIVAJI UNIVERSITY, KOLHAPUR 416 004, MAHARASHTRA PHONE : EPABX - 2609000, BOS Section - 0231-2609094, 2609487 Web : <a href="http://www.unishivaji.ac.in">www.unishivaji.ac.in</a> Email: <a href="mailto:bos@unishivaji.ac.in">bos@unishivaji.ac.in</a> शिवाजी विद्यापीठ, कोल्हापूर, ४१६ ००४, महाराष्ट्र दूरध्वनी - इपीबीएक्स - २०६०९०००, अभ्यासमंडळे विभाग : ०२३१- २६०९०९४, २६०९४८७ वेबसाईट : <a href="http://www.unishivaji.ac.in">www.unishivaji.ac.in</a> ईमेल : <a href="mailto:bos@unishivaji.ac.in">bos@unishivaji.ac.in</a></p>	<p>SHIVAJI UNIVERSITY, KOLHAPUR 416 004, MAHARASHTRA PHONE : EPABX - 2609000, BOS Section - 0231-2609094, 2609487 Web : <a href="http://www.unishivaji.ac.in">www.unishivaji.ac.in</a> Email: <a href="mailto:bos@unishivaji.ac.in">bos@unishivaji.ac.in</a> शिवाजी विद्यापीठ, कोल्हापूर, ४१६ ००४, महाराष्ट्र दूरध्वनी - इपीबीएक्स - २०६०९०००, अभ्यासमंडळे विभाग : ०२३१- २६०९०९४, २६०९४८७ वेबसाईट : <a href="http://www.unishivaji.ac.in">www.unishivaji.ac.in</a> ईमेल : <a href="mailto:bos@unishivaji.ac.in">bos@unishivaji.ac.in</a></p>		
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संदर्भ क्र. : शिवाजी वि./अ.म./400  
प्रति,

दिनांक : 15/07/2024

- |  |  |
|--|--|
| 1. मा. प्राचार्य/संचालक,<br>सर्व संलग्नित महाविद्यालये/मान्यताप्राप्त संस्था,<br>शिवाजी विद्यापीठ, कोल्हापूर | 2. मा. अधिविभाग प्रमुख,<br>सर्व अधिविभाग,<br>शिवाजी विद्यापीठ, कोल्हापूर |
|--|--|

विषय : राष्ट्रीय शैक्षणिक धोरण, 2020 (NEP 2.0) नुसार CEP, CC अभ्यासक्रमाबाबत.

महोदय/महोदया,

उपरोक्त संदर्भित विषयास अनुसरून आपणास आदेशान्वये कळविण्यात येते की, राष्ट्रीय शैक्षणिक धोरण २०२० (NEP 2.0) नुसार शैक्षणिक वर्ष २०२४-२५ पासून लागू करण्यात आलेल्या सर्व पदवी कोर्सला लागू असणा-या Community Engagement Programme (CEP), Co-Curricular Courses (CC) अभ्यासक्रम/त्याची नियमावली सोबत पाठवित आहे.

सदर Community Engagement Programme (CEP), Co-Curricular Courses (CC) अभ्यासक्रमाच्या प्रती जोडल्या आहेत. तसेच विद्यापीठाच्या [www.unishivaji.ac.in](http://www.unishivaji.ac.in) NEP-2020@suk (Online Syllabus) या संकेतस्थळावर ठेवण्यात आल्या आहेत.

सदर अभ्यासक्रम/त्याची नियमावलीची सर्व संबंधित विद्यार्थी व शिक्षकांच्या निदर्शनास आणून द्यावेत ही विनंती.

कळावे,

आपला विश्वासू,

(डॉ. एस. एम. कुबल)  
उपकुलसचिव

सोबत : अभ्यासक्रमाची प्रत.

प्रत : माहितीसाठी व पुढील योग्यत्या कार्यवाहीसाठी.

अधिष्ठाता, सर्व विद्याशाखा	पात्रता विभागास
अध्यक्ष, सर्व अभ्यास व अस्थायी मंडळे	पी.जी. सेमिनार विभागास
संचालक, परीक्षा व मुल्यमापन मंडळ कार्यालयास	पी.जी. प्रवेश विभागास
परिक्षक नियुक्ती ए व बी विभागास	संलग्नता टी. १ व टी २ विभागास
दूरस्थ व ऑनलाईन शिक्षण विभागास	नॅक विभागास
संगणक केंद्र/आय. टी. सेल विभागास	सर्व ऑन परीक्षा विभागास



# SHIVAJI UNIVERSITY, KOLHAPUR



Established: 1962

A<sup>++</sup> Accredited by NAAC (2021) With CGPA 3.52

## **New Syllabus For Community Engagement Programme (CEP) All Bachelor Degree Programme**

**STRUCTURE AND SYLLABUS IN ACCORDANCE WITH**

***NATIONAL EDUCATION POLICY - 2020***

**HAVING CHOICE BASED CREDIT SYSTEM**

**WITH MULTIPLE ENTRY AND MULTIPLE EXIT OPTIONS**

**(TO BE IMPLEMENTED FROM ACADEMIC YEAR 2024-25 ONWARDS)**

# **Community Engagement Programme (CEP):**

## **1. INTRODUCTION:**

New generation of students are increasingly unaware of local rural and peri-urban realities surrounding their HEIs, as rapid urbanization has been occurring in India. A large percentage of Indian population continues to live and work in rural and peri-urban areas of the country. While various schemes and programs of community service have been undertaken by HEIs, there is no singular provision of a well- designed community engagement course that provides opportunities for immersion in rural realities. Such a course will enable students to learn about challenges faced by vulnerable households and develop an understanding of local wisdom and lifestyle in a respectful manner

## **2. OBJECTIVES:**

- To promote a respect for rural culture, lifestyle, and wisdom among students.
- To learn about the present status of agricultural and development initiatives.
- Identify and address the root causes of distress and poverty among vulnerable households.
- Improve learning outcomes by applying classroom knowledge to real-world situations.

To achieve the objectives of the socio-economic development of New India, HEIs can play an important role through active community engagement. This approach will also contribute to improve the quality of both teaching and research in HEIs in India. India is a signatory to the global commitment for achieving Sustainable Development Goals (SDGs) by 2030. Achieving these 17 SDG goals requires generating locally appropriate solutions. Community engagement should not be limited to a few social science disciplines alone. It should be practiced across all disciplines and faculties of HEIs. These can take the forms of enumerations, surveys, awareness camps and campaigns, training, learning manuals/films, maps, study reports, public hearings, policy briefs, cleanliness and hygiene teachings, legal aid clinics, etc. For example, students of chemistry can conduct water and soil testing in local areas and share the results with the local community. Students of science and engineering can undertake research in partnership with the community on solid and liquid waste disposal. Therefore, students are being encouraged to foster social responsibility and community engagement in their teaching and research.

## **3. LEARNING OUTCOMES:**

After completing this course, students will be able to

- Gain an understanding of rural life, Indian culture, and social realities.
- Develop empathy and bonds of mutuality with the local community.
- Appreciate the significant contributions of local communities to Indian society and economy.
- Learn to Value local knowledge and wisdom.
- Identify opportunities to contribute to the community's socioeconomic improvement.

## **4. Credits:** Two credit Course; Students are expected to complete 60 hours of participation

## 5. COURSE STRUCTURE:

Sr.	Module Title	Module Content	Teaching/Learning/Methodology
1	Appreciation of Rural Society	Rural lifestyle, rural society, joint family, caste and gender relations, rural values with respect to community, rural culture nature and public resources, ponds and fisheries, elaboration of soul of India lies in villages' rural infrastructure,	Classroom discussions Field visit Individual /Group conference Report/journal submission & VIVA
2	Understanding rural and local economy and livelihood	Agriculture, farming, land ownership, water management, animal husbandry, non-farm livelihood and artisan's rural entrepreneurs, rural markets, migrant labour, social innovation projects	Classroom discussions Field visit Individual /Group conference Report/journal submission & VIVA
3	Rural and local Institution	Traditional rural and community organization, self-help groups, decentralized planning, panchayat raj institutions Gram panchayat, Nagarpalika and Municipalities, local Civil Society, Local administration, National rural, Livelihood Mission [NRLM], Mahatma Gandhi National Rural Employment. Guarantee [MGNREGA].	Classroom discussions Field visit Individual /Group conference Report/journal submission & VIVA
4	Rural and National development programmers	History of rural development and current National Programms in India: Sarva shiksha Abhiyan, Beti Bachao-Beti Padhao, Ayushman Bharat, eShram Swachh Bharat, PM Awas yojana, Skill India, Digital India, Start-Up India, Stand-Up India, Scheme of Fund for Regeneration of Traditional Industries (SFURTI), Jal Jeevan Mission, Mission Antyodaya, ATMANIRBHAR Bharat, etc..	Classroom discussions Field visit Individual /Group conference Report/journal submission & VIVA

*Note: Faculty can make addition in the list of activities as per domain content:*

### Recommended field-based activities (Tentative):

- ☐ Participate in Gram Sabha meetings, and study community participation;
- ☐ Visit to Swachh Bharat Mission project sites, conduct analysis and initiate problem solving measures;
- ☐ Interaction with Self Help Groups (SHGs) women members, and study their functions and challenges; planning for their skill-building and livelihood activities;
- ☐ Visit Mahatma Gandhi National. Rural Employment Guarantee Act 2005 (MGNREGS) project sites, interact with beneficiaries and interview functionaries at the work site;
- ☐ surveys on Mission Antyodaya to support under Gram Panchayat Development Plan
- ☐ Visit Rural Schools/mid-day meal centres, study academic and infrastructural resources, digital divide and gaps;
- ☐ Associate with Social audit exercises at the Gram Panchayat level, and interact with programme beneficiaries;
- ☐ Visit to local Nagarpalika office and review schemes for urban informal workers and migrants;
- ☐ Attend Parent Teacher Association meetings, and interview school drop outs;
- ☐ Visit local Anganwadi and observe the services being provided;
- ☐ Visit local NGOs, civil society organisations and interact with their staff and beneficiaries;
- ☐ Organize awareness programmes, health camps, Disability camps and cleanliness camps;
- ☐ Conduct soil health test, drinking water analysis, energy use and fuel efficiency surveys and building solar powered village;
- ☐ Understanding of people's impacts of climate change, building up community's disaster preparedness;
  - ☐ Organise orientation programmes for farmers regarding organic cultivation, rational use of irrigation and fertilizers, promotion of traditional species of crops and plants and awareness against stubble burning;
  - ☐ Formation of committees for common property resource management, village pond maintenance and fishing;
  - ☐ Identifying the small business ideas (handloom, handicraft, khadi, food products, etc.) for rural areas to make the people self-reliant.
  - ☐ Interactive with local leaders, panchayat functionaries, grass-root officials and local institutions

regarding village development plan preparation and resource mobilization;

- ☐ Financial Literacy Awareness Programme
- ☐ Digital Literacy Awareness Programme
- ☐ Education Loan Awareness Programme
- ☐ Entrepreneurship Awareness Programme
- ☐ Awareness Programmes on Government Schemes
- ☐ Products Market Awareness
- ☐ Services Market Awareness
- ☐ Consumer Awareness Programme
- ☐ Accounting Awareness Programme for Farmers
- ☐ Accounting Awareness Programme for Street Vendors etc.

## **6. IMPORTANT RULES AND REGULATIONS FOR CEP:**

### **Concurrent Fieldwork:**

Students must conduct comprehensive studies on various challenges that they face in their chosen field. Every work relevant to the subject matter should be compiled and documented.

Students should keep separate fieldwork diary or maintain journal in order to record their fieldwork experiences i.e. reading, e- contents, tasks, planning and work hours have to be recorded in the diary. Detailed work records report on students' fieldwork experiences and activities to be submitted and should be presented. The fieldwork conference is part of the timetable and is mandatory. Faculty should hold a fieldwork conference FOREIGHTNIGHTLY for all students.

In addition to the principal curriculum, the students engage in a variety of community development- related activities. They are encouraged to plan and carry out programs, processions, and events for social causes. These activities seek to enhance students' personal and professional skills as well as foster self-development. "Rural Camp" should be embedded in the curriculum for first-year students to be held in the backward and neglected areas of District's

Concurrent Fieldwork is the core curriculum activity in the CEP course. Hence, 100% attendance of the students is mandatory in case of absence on any student, supplementary fieldwork must be arranged and accomplished with the approval of the faculty supervisor.

## **7. EVALUATION/ASSESSMENT SCHEME:**

Students should keep a Field Diary / journal to record, content, readings and field visit planning. The assessment pattern is internal and external i.e. 40+10.

**Internal continuous Assessment:** Participation in concurrent field visits 40%; individual/group field project conference, report/journal submission 40%.

**External Assessment:** Presentation of field project findings (VIVA) should be assigned 20%.

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – IV**

<b>DSC10</b>	<b>DBMS</b>	<b>Credit: 02</b>
<b>Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50</b>		
<b>Course Outcome</b>	After completion of this course students will be able to - 1) Describe the basic concepts of DBMS and real life applications of DBMS 2) Learn MS-Access and SQL for database creation and handling transactions.	
<b>Unit I</b>	<b>Introduction to DBMS</b> Definition of DBMS, Features of DBMS, advantages and disadvantages of DBMS, Structure of DBMS, Architecture of database system, Data models: Hierarchical Model, Network Model, Relational Model and Entity Relationship Model. Concept of Keys: Primary key, foreign key, candidate key, super key, unique key. Concept of normalization, First NF, Second NF, Third NF, advantages of normalizations.	<b>15</b>
<b>Unit II</b>	<b>Database Management through SQL and Ms-Access</b> SQL: Introduction of SQL, features, SQL data types, DDL commands, DML commands, select command, aggregate functions, order by clause. MS-access: Introduction of Ms-Access, features, database creation, table creation, insert records, queries, forms and report creation through wizards.	<b>15</b>
<b>Books Recommended:</b> 1) Database System Concept – Henry korth and A. Silberschatz 2) Fundamentals of Database System- Ramez Elmasri, Shamkant B. Navathe(Pearson) 3) Database Management System- Raghu Ramkrishnan, Gehrke (McGraw Hill) 4) SQL, PL/SQL The Programming Language Oracle :- Ivan Bayross, BPB Publication 5) Introduction to SQL by Reck F. van der Lans by Pearson 6) Database Management System- R. Panneerselvam 7) Ms-Office Complete reference		

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40 Standard of Passing: 16 Marks (40%) Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

Qu.1) Broad answer questions (Any ONE out of TWO)	16
Qu.2) Short answer questions (Any TWO out of THREE)	14
Qu.3) Write notes on (Any TWO out of FOUR)	10

**Internal Marks Distribution:**

**Total Marks: 10 Standard of Passing: 4 Marks (40%)**

1 Five Marks for Mid Tests.

2 Five Marks for Assignments / presentation or activity based learning/ Group exercise  
(Number of students in Group are not more than six)/ Laboratory work/ Library work)

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)



**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – IV**

<b>DSC11</b>	<b>Computer Networking</b>	<b>Credit: 04</b>
<b>Marks: Semester End: 80 Internal Assessment: 20 Total Marks: 100</b>		
<b>Course Outcome</b>	After completion of this course student should be able to- 1. Understand the concept of computer network. 2. Understand the process of Data communication over computer network. 3. Recognize the different functionalities of network. 4. Identify different models required to build layered network.	
<b>Unit I</b>	<b>Introduction to Computer Network:</b> Definition of a Computer Network, Concept of Network, Need of a computer network, Components of computer networks- Client, Server and Workstation. Network architecture: Client-Server and Peer to Peer, Network devices-hub, repeater, bridge, router, gateway. Classification of computer network-geographical spread (LAN, WAN, MAN). Network topologies- Bus, Ring, Star, Mesh and Tree	<b>15</b>
<b>Unit II</b>	<b>Data Transmission:</b> Data transmission methods-serial and parallel transmission. Data communication types- analog and digital transmission. Transmission Modes: Simplex, Half duplex & Full duplex, Transmission Medias- Guided media - twisted pair, coaxial cable, optical fibers. Unguided media-radio waves, microwaves, infrared.	<b>15</b>
<b>Unit III</b>	<b>Functionalities of Network</b> Concept of Error detection & control code. Flow control- Stop and Wait protocol, sliding window protocol. Routing and Switching techniques - Circuit, Packet & Message switching, Multiplexing techniques, Connection oriented and connectionless services.	<b>15</b>
<b>Unit IV</b>	<b>Network Model</b> <b>OSI Model</b> -Introduction, Working and Functions of – Physical layer, Data Link Layer, Network Layer, Transport Layer, Session Layer, Presentation Layer, Application Layer. <b>TCP/IP Model</b> - Introduction, Working and Functions of Process/Application layer, Host to Host/Transport layer, Internet layer, Network access/Link layer.	<b>15</b>
<b>Books Recommended:</b> 1. Computer Networks Andrew Tanenbaum, Pearson Education 2. Data Communication and Networks, James Irvin, David Harle, Wiley 3. Computer Networks protocols, Standards and Interface Black C. Prentice Hall of India 4. Computer Communication Networks William Stalling Prentice Hall of India 5. Computer Networks Edition-01by Dave, Cengage Publication		

**Nature of question paper for four credit University End Semester Examination**

**Total Marks: 80 Standard of Passing: 32 Marks (40%) Duration: 3Hrs**

Instructions: 1) Que.1 and Que. 8 are compulsory and attempt any three Questions from Que. No.2 to Que. No. 7.

2) Figures to the right indicate marks.

Qu.1) Multiple Choice Questions (12 questions for 1 mark each)	12
Qu.2) Broad answer question	16
Qu.3) Broad answer question	16
Qu.4) Broad answer question	16
Qu.5) Broad answer question	16
Qu.6) Broad answer question	16
Qu.7) Broad answer question	16
Qu.8) Write notes on (Any Four out of Six)	20

**Internal Marks Distribution:**

1 Ten Marks for Mid Tests.

2 Five Marks for presentation or activity based learning or Group exercise (Number of students in Group are not more than six).

3 Five Marks for Assignments.

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – IV**

DSC12	Lab on DSC10	Credit: 02
Marks: Semester End: 50 Total Marks: 50		
Course Outcome	After completion of this course student should be able to- 1. Perform SQL queries on database using DDL and DML commands. 2. Use MS-Access to design database and perform transactions for different systems.	
List of Practical's:		
1. Implement DDL commands (create, describe, alter, drop) using SQL 2. Implement DML commands (insert, delete, update) using SQL 3. Implement select command using SQL 4. Implement select command using aggregate functions and order by clause using SQL (Perform exercises using Open-Source Software like MySQL) 5. Solve following Case Studies using MS-Access a) Library system: b) HR Management System c) Inventory Management System For each case study: Design at least 5 tables with appropriate constraints. Design forms and insert at least 5 records in each table, Create different queries using query wizard. Create at least 3 reports using report wizard		

**Nature of Practical Question Paper:**

**Total Marks: 50 Standard of Passing: 20 Marks (40%)**

There will be three questions of 15 Marks each, out of which student have to attempt any two Questions.

10 marks for journal and 10 marks for oral.

Time duration is three hours.

Practical Examination should be conducted by the University appointed examiner panel

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**

**B.Com. IT Major SEMESTER – IV**

**DSM3- Money and Financial System Credits: 4**

**Marks: Semester End:80 Internal Assessment:20 Total Marks: 100**

**Introduced from June 2025**

**Course Outcomes:**

1. Students understand the changing nature of financial system
2. Students equipped explain and make use of the E- Banking services
3. Students enable to analyse the stance of RBI's monetary policy

Marks : 50

Credits : 4

Unit No	Unit Name	Lectures
<b>Unit 1</b>	<b>E-Banking Services</b> 1.1 Internet Banking: Meaning, Features and Services 1.2 Credit and Debit Card : Features, Importance &Precautions 1.3 NEFT, RTGS, IMPS, UPI & Cheque Truncation System 1.4 Mobile Banking: Meaning, Features and Services	15
<b>Unit 2</b>	<b>Recent Developments in Indian Financial System</b> 2.1 Micro Finance Institutions: Functions and Importance 2.2 Licensing and functioning of Payment Banks and Small Finance Banks 2.3 NBFCs: Meaning, Features and Types 2.4 Mutual Funds : Meaning, Types	15
<b>Unit 3</b>	<b>Reserve Bank of India</b> 3.1 Organizational Structure and Functions of RBI 3.2 Meaning and Objectives Monetary Policy 3.3 Instruments of Monetary Policy 3.4 Monetary Policy Committee; RBI's Autonomy & Section-7 of RBI Act 1934	15
<b>Unit 4</b>	<b>All India Financial Institutes and Issues in Indian Banking</b> 4.1 Administrative Structure and Functions of NABARD and SIDBI 4.2 Administrative Structure and Functions of NHB and EXIM Bank 4.3 Meaning, Causes and Remedies for NPA, Prompt Correctives Action, Asset Reconstruction Companies 4.4 Consolidation in Indian Banking – Meaning and Forms	15

**References**

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 4 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.

**Nature of question paper for four credit University End Semester Examination**

**Total Marks: 80 Standard of Passing: 32 Marks (40%) Duration: 3Hrs**

Instructions:

1) Que.1 and Que. 8 are compulsory and attempt any three Questions from Q.No.2 to Q.No. 7.

2) Figures to the right indicate marks.

Qu.1) Multiple Choice Questions (12 questions for 1 mark each) 12

Qu.2) Broad answer question 16

Qu.3) Broad answer question 16

Qu.4) Broad answer question 16

Qu.5) Broad answer question 16

Qu.6) Broad answer question 16

Qu.7) Broad answer question 16

Qu.8) Write notes on (Any Four out of Six) 20

**Internal Marks Distribution:**

1 Ten Marks for Mid Tests.

2 Five Marks for presentation or activity based learning or Group exercise (Number of students in Group are not more than six).

3 Five Marks for Assignments.

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy (NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – IV</b>  <b>OE6- Statistics P-IV Credits :2</b>  <b>Marks: Semester End:40 Internal Assessment:10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...  1. Understand Quantitative techniques and their Managerial applications  2. Understand the basic concepts and scope of Inventory Management and CPM/PERT</p>		
<b>Unit No.</b>	<b>Content s</b>	<b>No. of Hours</b>
<b>1</b>	<b>Inventory Management (12)</b> 1.1. Introduction to Inventory Problem 1.2. Deterministic Models: Single item static EOQ models for: (i) Constant rate of demand with instantaneous replenishment, with and without shortages. (ii) Constant rate of demand with uniform rate of replenishment, with and without shortages. (iii) Constant rate of demand with instantaneous replenishment without shortages, with at most two price breaks. 1.3. Probabilistic models: Single period with (i) Instantaneous demand (discrete and continuous) without setup cost. (ii) Uniform demand (discrete and continuous) without set up cost. 1.4. Problems and examples.	<b>15</b>
<b>2</b>	<b>Critical Path Method (CPM) and Project Evaluation &amp; Review Technique (PERT)</b> 2.1. Definitions: (i) event, (ii) node, (iii) activity, (iv) critical activity, (v) project duration. 2.2. Critical Path Method (CPM): Construction of a network, definitions of (i) earliest event time, (ii) latest event time, (iii) Critical path. Determination of critical path. 2.3. Project Evaluation & Review Technique (PERT): Construction of network, pessimistic time, optimistic time, most likely time. Determination of critical path, determination of mean, variance and standard deviation of project duration, computations of probability of completing the project in a specified duration. 2.4. Examples and problems.	<b>15</b>

**References:**

1. Sharma S. D.: Operations Research, Eighth edition, Kedarnath Ramnath & Co.
2. Sharma J. K.: Mathematical Models in Operations Research, Tata McGraw Hill Publishing Companies
3. Taha H. A.: Operation research – An Introduction, Eighth edition, Prentice Hall of India, New Delhi
4. Vora N. D.: Quantitative Techniques in Management, Third edition, McGraw Hill Publishing Companies



**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40**

**Standard of Passing: 16 Marks (40%)**

**Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

**Question No: 1** **10 marks**

J) Multiple Choice Question 4 Marks

K) True or False 3 Marks

L) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:**

**Total Marks: 10**

**Standard of Passing: 4 Marks (40%)**

<i><b>Particulars</b></i>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
9. Seminar 10. Poster Presentation 11. Role Play 12. Group Discussion 13. Unit Tests 14. Visits 15. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher )</b>

<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy (NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – IV</b>  <b>OE6- Rural Development P-II Credits :2</b>  <b>Marks: Semester End:40 Internal Assessment:10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...  1. understand the importance of rural development.  2. analyze the process of rural community development.</p>		
<b>Unit No.</b>	<b>Content s</b>	<b>No. of Hours</b>
<b>1</b>	Introduction to Agribusiness: Nature, definition, scope and functions. Agribusiness input and output services, Difference between farm and non farm sectors, agricultural products, non farm products, Concept of Farmer producer organisation (FPO), importance of small agribusinesses, Successful Agri-business enterprises.	<b>15</b>
<b>2</b>	Rural Marketing: introduction, Rural consumer: Age and stage of lifecycle, lifestyle, rise of consumerism, opinion leadership. Rural market environment: Occupation, Income generation, spending patterns, infrastructure, Characteristics of rural marketing, STDP (Segmentation: Demographic, Geographic, behavioural, Psychographic, occupational. Targeting, Differentiation, and Positioning) for rural market, Problems in Rural Marketing.	<b>15</b>

**References:**

1. Rajgopal, 'Indian Rural Marketing', Rawat Publications Jaipur & New Delhi
2. Shamim Ahmad, 'Rural Marketing in India', Ashish Publishing House New Delhi.
3. 'Rural Marketing In India', K S Habeeb-Ur-Rahman, Himalaya Publishing House Mumbai.
4. Ramkishen Y, 'Rural & Agricultural Marketing', Jaico Publishing House Mumbai Nalini

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40**

**Standard of Passing: 16 Marks (40%)**

**Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

**Question No: 1** **10 marks**

M) Multiple Choice Question 4 Marks

N) True or False 3 Marks

O) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:**

**Total Marks: 10**

**Standard of Passing: 4 Marks (40%)**

<b><i>Particulars</i></b>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
16. Seminar 17. Poster Presentation 18. Role Play 19. Group Discussion 20. Unit Tests 21. Visits 22. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher )</b>

<p style="text-align: center;"><b>Faculty of Commerce and Management</b>  <b>Syllabus as per National Education Policy (NEP) 2020</b>  <b>B.Com. IT Major SEMESTER – IV</b>  <b>OE-VI Agricultural Economics P-II Credits :2</b>  <b>Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50</b>  <b>Introduced from June 2025</b></p>		
<p><b>COURSE OUTCOMES:</b>  After studying this course, students will be able to...</p> <ol style="list-style-type: none"> <li>3. understand the issues related with economics of Farm Management</li> <li>4. analyze the different risk factors of agriculture.</li> </ol>		
<b>Unit No.</b>	<b>Contents</b>	<b>No. of Hours</b>
<b>1</b>	<p><b>Economics of Farm Management:</b></p> <p><b>1.1:</b> Farm management: Scope- Objectives- Farm management decisions- Types of Farming- Farm Size and Productivity – Farm Efficiency Measures.</p> <p><b>1.2:</b> Principles of farm management: Principles of Factor Substitution- Principles of Equi-Marginal Returns – Opportunity Cost Principle - Minimum Loss Principle – Principle of Comparative Advantage – Time Comparison Principle</p> <p><b>1.3:</b> Management of farm Resources: Land, Labour and Capital.</p> <p><b>1.4:</b> Practical and applications: Case studies on farm management and efficiency measures</p>	<b>15</b>
<b>2</b>	<p><b>Economics of Agricultural Risk Management: (15 Periods)</b></p> <p><b>4.1:</b> Nature of Uncertainty in Agriculture: Price, Yield and Technological.</p> <p><b>4.2:</b> Risks in Agriculture: Types of Risks: Climate, Drought, Production, Price, Financial, Market &amp; Management Strategy.</p> <p><b>4.3:</b> Risk Management Strategies: National Agricultural Insurance Scheme (NAIS), Crop Insurance as Risk Mitigation Tool, Crop Insurance, Weather Insurance, Farm Income Insurance, Livestock Insurance and Package Insurance.</p> <p><b>4.4:</b> Practical and applications: Case studies on Farm Management Strategies</p>	<b>15</b>

**References:**

1. Desai R G (2001): Agricultural Economics - Models Problems and Policy Issues, Himalaya Publishing House, Mumbai.
2. Kumar K N R (2015): Agricultural Production Economics, Volume-I, Daya Publishing House, A Division of Astral International Pvt. Ltd, New Delhi.
3. Lekhi R K & Singh Jogindar (2013): Agricultural Economics, Kalyani Publisher, New Delhi.
4. Reddy, Ram, Sastry & Devi (2010): Agricultural Economics Oxford & IBH publishing Co. Pvt. Ltd, New Delhi.

**Nature of question paper for two credit University End Semester Examination****Total Marks: 40****Standard of Passing: 16 Marks (40%)****Duration: 2Hrs****Instructions****1. All questions are compulsory.****2. Figures to right indicate full marks****Question No: 1** **10 marks**

P) Multiple Choice Question 4 Marks

Q) True or False 3 Marks

R) Fill in the Blanks 3 Marks

**Question No: 2 Short Notes Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Short Answer Questions (any Two out of Four)** **10 marks**

Answer limit 150-200 words

**Question No: 3 Long Answer Questions (any one out of two)** **10 marks**

Answer limit 300-400 words

**Internal Marks Distribution:****Total Marks: 10****Standard of Passing: 4 Marks (40%)**

<b><i>Particulars</i></b>	<b>Marks</b>
<b>Attendance and Class Participation</b>	<b>02</b>
1. Assignments	<b>04</b>
23. Seminar 24. Poster Presentation 25. Role Play 26. Group Discussion 27. Unit Tests 28. Visits 29. Group project	<b>04 marks for any one of the given list (As per concern of subject teacher)</b>

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy(NEP) 2020**  
**B.Com. IT Major SEMESTER – IV**

<b>SEC3</b>	<b>Web Technology-II</b>	<b>Credit: 02</b>
<b>Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50</b>		
<b>Course Outcome</b>	After completion of this course student should be able to- 1. Understand importance and usage of CSS in website development. 2. Implement client side scripting for website development.	
<b>Unit I</b>	<b>Introduction of CSS</b> 1.1 Basics of CSS, Syntax 1.2 Importance of CSS 1.3 Types of CSS, 1.4. CSS Selectors-Group, id, class 1.5. CSS properties- Border, background, list, image, margins 1.6 Advantages and limitations of CSS	<b>15</b>
<b>Unit II</b>	<b>Introduction to JavaScript</b> 2.1 Introduction to JavaScript. 2.2 Identifier & operators 2.3 Control structure 2.4 Dialog boxes 2.5 Functions 2.6 Event Handling 2.7 Objects in JavaScript 2.8 Form Validation using JavaScript	<b>15</b>
<b>Books Recommended:</b> 1. HTML and JavaScript–Ivan Bayross 2. JavaScript: The Complete Reference by Thomas Powell, Fritz Schneider 3. HTML5 & CSS3- Castro Elizabeth 7 <sup>th</sup> Edition		

**Nature of question paper for two credit University End Semester Examination**

**Total Marks: 40 Standard of Passing: 16 Marks (40%) Duration: 2Hrs**

**Instructions**

**1. All questions are compulsory.**

**2. Figures to right indicate full marks**

Qu.1) Broad answer questions (Any ONE out of TWO)	16
Qu.2) Short answer questions (Any TWO out of THREE)	14
Qu.3) Write notes on (Any TWO out of FOUR)	10

**Internal Marks Distribution:**

**Total Marks: 10 Standard of Passing: 4 Marks (40%)**

1 Five Marks for Mid Tests.

2 Five Marks for Assignments / presentation or activity based learning/ Group exercise

(Number of students in Group are not more than six)/ Laboratory work/ Library work)

(The record of internal submission by the students should be maintain by higher educational institute for the examination of university authority if required)

**Faculty of Commerce and Management**  
**Syllabus as per National Education Policy (NEP) 2020**  
**B.Com. IT Major SEMESTER – IV**  
**AEC4- Communication and Soft Skills P-II Credits: 2**  
**Marks: Semester End: 40 Internal Assessment: 10 Total Marks: 50**  
**Introduced from June 2025**

**Course Objectives**

After learning this course students will be able -

- ☐ To introduce themselves with the marketing skills
- ☐ To acquaint with advertising and promotion of products
- ☐ To learn human values

**Course Outcomes**

After completion of this course -

- Students know the marketing skills
- Students get acquainted with advertising and promotion of products
- Students learn human values

	<b>Semester IV</b>			
<b>Unit No.</b>	<b>Title of the Unit</b>	<b>Subtitles of the Unit</b>	<b>Hours</b>	<b>Marks</b>
III	English for Marketing	A. Writing Advertisements B. Promotion of a Product	15	20
IV	A. Dream Big- Lisa Hammond B. If you are Wrong Admit It- Dale Carnegie	-	15	20
	<b>Total</b>		30	40
	<b>Internal Evaluation for 10 Marks</b>			

**QUESTION PAPER PATTERN**  
**Ability Enhancement Course (AEC) (For 40 Marks)**  
**Semester IV**

Q.1-A: Multiple Choice Questions (based on Module I and II-4 questions) 4 marks

B: Answer in one word/phrase /sentence (4 questions) 4 marks

Q2. A. Question to be set on English for Marketing – 8 marks

B. Question to be set on English for Marketing – 8 Marks

Q 3 A. Answer the following question briefly (any 2 out of 3) – 8 Marks

B. Write short notes on (any 2 out of 3) – 8 Marks

**Internal Assessment: 10 Marks**

**Reference Books**

- Seely, John. Oxford guide to effective writing and speaking, Oxford University Press, 2013
- Rai, Urmila and S.M. Effective Communication, Himalaya Publication
- Rayudu,C.S. Communication, Himalaya Publication,2012
- Hammond, Lisa. Dream Big, Jalco Publishing House, Mumbai 2005



# Shivaji University, Kolhapur Programme: B. Com.

## Level 5.0 Semester- IV

### Course Code- VEC3 Environmental Studies

(Introduced from June 2025)

#### Course Outcomes:

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

- 1: Get acquainted with the scope and multidisciplinary nature of environmental science with the overall aim of sustainable development.
- 2: Understand the importance of ecosystems in the view of its conservation.
- 3: Know the values of natural resources with associated problems for sustainable lifestyles.
- 4: Familiarize the basics of Biodiversity and concerned issues in the context of Western Ghats.

2 Credits	50 Marks (Semester end examination 40 and internal evaluation 10)	Total 30 hours
<b>Unit</b>	<b>Course Content</b>	<b>No. of Hours</b>
Unit-I	<b>Nature of Environmental Science, Ecosystem, Natural Resources and Biodiversity conservation:</b> <b>a) Nature of Environmental Science:</b> <ul style="list-style-type: none"><li>• Definition, scope, and importance</li><li>• Multidisciplinary nature of environmental studies</li><li>• Sustainable Development Goals (SDGs) , Concept of sustainable development</li></ul> <b>b) Ecosystem:</b> <ul style="list-style-type: none"><li>• Structure and function of an ecosystem,</li><li>• Energy flow in the ecosystem, Food chains, food webs , ecological pyramids</li><li>• Ecological succession. Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems Degradation of ecosystems and its impacts.</li></ul> <b>c) Natural Resources:</b> <ul style="list-style-type: none"><li>• Classification of natural resources</li><li>• Forest resources: Use and over-exploitation, deforestation, forests and tribal people.</li><li>• Water resources: Use of surface and groundwater, Water scarcity and stress</li><li>• Water conservation: rainwater harvesting, watershed management</li><li>• Soil and Mineral resources: Soil as a resource and its degradation, Environmental effects of extracting and using mineral resources.</li><li>• Energy resources: Growing energy needs, Energy crisis, use of alternate energy sources, Role of Indian traditions and culture in conservation of the environment</li></ul> <b>d) Biodiversity and its conservation:</b> <ul style="list-style-type: none"><li>• Types: genetic, species, and ecosystem diversity,</li><li>• Bio-geographical classification of India,</li><li>• Value of biodiversity:<ul style="list-style-type: none"><li>• India as a mega- diversity nation. Hot-spots of biodiversity, Western Ghats as a biodiversity region.</li><li>• Threats to biodiversity habitat loss, poaching of wildlife, man-</li></ul></li></ul>	15

	wildlife, Conflicts, Endangered and endemic species of India. Conservation of biodiversity: In-situ and Ex-situ conservation	
Unit-II	<b>Environmental Pollution, Climate change and Environmental legislation</b> <b>a) Environmental Pollution:</b> <ul style="list-style-type: none"> <li>• Air pollution: Causes, effects and control measures</li> <li>• Water pollution: Causes, effects and control measures, Marine pollution,</li> <li>• Soil pollution: Causes, effects and control measures,</li> <li>• Noise pollution: Causes, effects and control measures</li> <li>• Solid waste Management: Causes, effects and control</li> </ul> <b>b) Climate change: Causes, effects and mitigation</b> <ul style="list-style-type: none"> <li>• Greenhouse gases, phenomenon of greenhouse effect and climate change,</li> <li>• Impacts of climate change: on life, on ocean and land systems; Sea level rise, On forests and natural ecosystems; On agriculture, on Human health</li> <li>• Mitigation of climate change: IPCC, Carbon foot print, Green House Gas (GHG) reduction, net zero targets for the future</li> <li>• Energy efficiency measures; Renewable energy sources for carbon reduction</li> </ul> <b>c) Environmental legislation:</b> <ul style="list-style-type: none"> <li>• Constitutional provisions- Article 48A, Article 51A (g),</li> <li>• Environmental Protection Act.,</li> <li>• Air (Prevention and Control of Pollution) Act,</li> </ul> Water (Prevention and control of Pollution) Act,	15
	<b>Nature Visits / Field Work /Field Tour/ Industrial visits / Campus environmental management Activities</b>	5

### Text Books:

1. Environmental Studies E-Text Book (Marathi and English Medium) Shivaji University, Kolhapur
2. Environmental Studies – UGC- Text Book for Undergraduate Courses for all Branches of Higher Education – Erach Bharucha, Bharti Vidyapeeth Institute of Environment Education and Research, Pune
3. A Textbook of Environmental Studies, January 2006 Ahmed Khan ABD Publishers

### References:

1. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. Science, 339: 36-37.
2. McNeill, John R. 2000. Something New Under the Sun: An Environmental History of the Twentieth Century.
3. Odum, E.P., Odum, H.T. & Andrews, J. 1971. Fundamentals of Ecology. Philadelphia: Saunders.
4. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. Environmental and Pollution Science. Academic Press.
5. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. Environment. 8<sup>th</sup> edition. John Wiley & Sons.

6. Rosencranz, A., Divan, S., & Noble, M. L. 2001. Environmental law and policy in India. Tripathi 1992.
7. Sengupta, R. 2003. Ecology and economics: An approach to sustainable development. OUP.
8. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. Ecology, Environmental Science and Conservation. S. Chand Publishing, New Delhi.
9. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. Conservation Biology: Voices from the Tropics. John Wiley & Sons.
10. World Commission on Environment and Development. 1987. Our Common Future. Oxford University Press.

**Nature of Question Paper**  
**Course Code- VEC3- Environmental Studies**  
**(Introduced from June 2025)**

Time- 90 Minutes

Marks - 40

Question No. 1	Multiple Choice Questions each for one Marks	10 Marks
Question No. 2	Write the answer in Short (Any Five out of Six)	10 Marks
Question No. 3	Write Short Notes on (Any Two out of Four)	10 Marks
Question No. 4	Write the Answer in detail (Any Two out of Four)	10 Marks

**Standard of passing:**

The standard of passing for a 40 marks Theory question paper is a minimum of 14 marks and for 10 marks internal examination is minimum 4 marks.

**Internal Evaluation (College Assessment):**

Marks for internal assessment shall be given based on Nature Visits / Field Work / Field Tour/ Industrial visits to study environmental aspects / Activities related to Campus environmental management activities with handwritten report of individual student is Compulsory under internals marks.

Following any one activity can also be considered for internal evaluation:

- Group Discussion on one national and one international case study related to the
- environment and sustainable development.
- One day Nature Visit / Field Work / Field Tour/ Industrial visit including Data collection and
- a brief hand written report to be submitted.
- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted mitigation site –Solid waste treatment plant, Wastewater Treatment plant, Organic fertiliser production site, Cleanliness drive etc.
- Study of common plants, insects, birds and basic principles of identification.
- Participation of students in any environmental protection related academic Discussion, workshop, conference, etc.
- Campus environmental management activities such as Documentation of campus Biodiversity, solid waste disposal, Cleanliness drive, water and sewage treatment.