

**Programme Outcomes**

**1) Bachelor of Arts (B.A.)**

**1. Cognitive skills:**

Students will be better able to appreciate different civilizations, culture. They will cultivate the sensibility to discern the evolution of civilizations and cultures. They will also be up to date with contemporary developments and develop a sociological sensibility to critically understand the social phenomena that affects their lives. Students also learn three languages along with four major subjects. At the end of the programme, they usually will have advanced reading, writing, speaking, interpretive and composition skills in both languages.

**2. Employability:** On graduating, the students will be eligible for employment in tourism, media, hospitality, and other industries. Students also become employable in non-governmental organizations. Their skills in comprehension of general social phenomena around them will place them in ideal situation for such jobs. They will also be able to appear for competitive examinations conducted for public sector jobs. The general humanities education equips them to clear competitive exams.

**3. Values:** Humanities education is designed in such a way that it lays particular emphasis on human values. Students on completion of the undergraduate degree will be better able to appreciate the literary and cultural diversity. It equips them to think critically about the issues of contemporary relevance and hold an informed opinion on them.

**2) Bachelor of Commerce (B.Com.)**

Graduates of this degree will be knowledgeable on following points on completion. They will be able to:

1. Demonstrate knowledge of major theories and models in key areas of organisational behaviour
2. Analyse organisational problems and generate realistic solutions based on current academic research in organisational behaviour
3. Demonstrate a knowledge of macroeconomic theory as it relates to current macroeconomics policy and issues
4. Demonstrate a knowledge of microeconomic theory as it relates to markets, firms, government policy, and resource allocation
5. Demonstrate a knowledge of key concepts underlying quantitative decision analysis
6. Apply basic mathematical and statistical skills necessary for analysis of a range of problems in economics, actuarial studies, accounting, marketing, management and finance
7. Analyze commerce /business issues in the international contexts
8. Compare international contexts and issues through the lens of the commerce disciplines
9. Evaluate national debates and discussions on economic, commercial, and business issues

**3) Bachelor of Computer Application (B.C.A.)**

On completion of the course, students have a lot of options:

1. Higher education possibilities into MCA and other post graduate diploma courses.
2. Self-employment options such as freelancing, developing one's own software.
3. Employment options in MNCs as system engineers, junior programmers, web developers or system administrators and opportunities in government organizations like NIC, Indian Army, Indian Air Force and India Navy.

#### **4) Bachelor of Science (B.Sc.)**

1. Conduct research relevant to a scientific issue, evaluate different sources of information including secondary data, understanding that a source may lack detail or show bias.
2. Appreciate the role of science in society; and its personal, social and global importance; and how society influences scientific research.
3. To understand and analyze the data (qualitatively/quantitatively) to identify patterns and relationships, identify anomalous observations, draw and justify conclusions
4. To recognize questions that are appropriate for scientific investigation, pose testable hypotheses, and evaluate and compare strategies for investigating hypotheses.
5. Students should appreciate the role of science in society; and its personal, social and global importance.

**Programme Specific Outcome**

**1) Bachelor of Arts in English**

Student graduating with a Bachelor of Arts degree in English demonstrates an ability of:

- Effective application of linguistic skills, i.e. Listening, Speaking, Reading, Writing of English language.
- Reading, interpreting and writing about a diverse range of texts in English.
- Critical and analytical understanding co-relation between language, literature and culture.
- Application of critical theories and concepts to understand a literary work.
- Effectively using English language according to various situations.
- Developing critical insight to understand English literatures in English.
- Using effective communication for employability/ entrepreneurship.

**2) Bachelor of Arts in Marathi**

**मराठी**

कार्यक्रम पूर्ण झाल्यानंतर विद्यार्थ्यांमध्ये क्षमता विकसित होईल:

- मराठी साहित्य समजून घ्या आणि कौतुक करा
- साहित्याची सर्जनशील प्रक्रिया आणि स्वरूप समजून घ्या.
- मराठी साहित्य वाचनाची आवड निर्माण करा.
- संवादात औपचारिक आणि अनौपचारिक मराठी वापरा.
- दैनंदिन जीवनात भाषेचे महत्त्व समजून घ्या

**3) Bachelor of Arts in History**

1. Develop interest in historical study to concern today's our life.
2. Develop the comprehensive ability.
3. Inculcate moral and human values within themselves.
4. Get information about Human history and culture and development of civilization.
5. Make special use of historical data and factual information.
6. Create an analytic and critical tempore.

**4) Bachelor of Arts in Economics**

1. B. A. Economics course seeks to provide students with useful insights into the current economic status and structure of the Indian economy, major sectors and their relative

importance in the Indian economy and the major challenges facing it. To create awareness about the functioning of cooperative societies in rural and urban areas.

2. To know the concept of economic development, theories of growth and development, sectoral aspects of development, domestic macro policies. To know the concept of financial planning, problems in development planning and financial planning in India. Analyzes the financial behaviour of individual companies and markets. Aims to equip students in a rigorous and comprehensive manner with the analysis of consumer behaviour and demand, production theory and various aspects of revenue and expenditure behaviour. The firm's profit maximization strategies are analyzed under various market conditions.
3. Research plays an important role in enriching the knowledge of the subject which is very important in a knowledge-based society. Economics students should know the basic concept and methodology of research. Research methodology paper is important for economics students in this context. How to write a research report, thesis and research proposal knowledge.
4. Also, neo-classical and Indian economic thought. Students should know the contribution of Indian economic thinkers and understand the basic economic ideas of various economic thinkers of the world.
5. The B. A. Economics course has become relatively more relevant to give students a better understanding of the rationale behind the recent changes in India's export-import policies and to expose students to competition from a strategic perspective in the current global scenario.

## **5) Bachelor of Commerce**

1. Students able for self employment or entrepreneurship
2. Understand overall concepts of Accounting
3. Analyse business operation independently
4. Gain commercial way of thinking
5. Understand Business Laws, Auditing & taxation mechanism.

## **6) Bachelor of Computer Application**

1. BCA offers the prequalification for professionals heading for smart career in the IT field.
2. These measures up to international standards.
3. On completing this course one can do higher studies such as MCA, MBA etc., in any UGC recognized universities or in any other reputed institution in India or abroad.
4. To develop different software developments skills in the students with current trends in IT industry as well as Business Management.
5. To take up students at various positions such as System Analyst, System Manager, Software Engineers, Web Design Programmers, EDP managers, Database administrator, etc.

6. To extensive practical areas of different programming environments.

### **7) Bachelor of Science in Chemistry**

1. They can perform experimental work in chemistry as per laboratory standards.
2. The graduate know about applications of chemistry in various fields of human activities such as agriculture, medicine, space research, dye industry, general chemical industry, metal and alloys and soap and detergents.
3. To developed ability and to acquires knowledge of terms and facts
4. To expose the student to various emerging new area of chemistry
5. To develop proper aptitude towards the radioactivity of elements
6. To inquire of new knowledge of natural products.

### **8) Bachelor of Science in Zoology**

1. To make the pupils to use the knowledge in their daily life.
2. To make the pupils aware of natural resources and environment.
3. To provide practical experiences which form a part of their learning processes.
4. To encourage the pupils to take life science as a carrier this is the need now a day.
5. To make the pupils fit for the society.
6. To impart knowledge is the basic aim of education.

### **9) Bachelor of Science in Computer Science**

1. To create a learning environment to transform the students with strong fundamentals concepts
2. B.Sc. Computer Science, analytics, programming and problem solving.
3. To provide exposure to students to latest tools & technologies in area of computer science.
4. There are brilliant job outlooks for Computer Science graduates in the recent Scenario.
5. Computer Science graduates are competent in academic, Research, Industry, Government, Private and Business organizations with the acquired programming skills.

Course Outcomes

English	<p><b>B.A. Part I – Ability Enhancement Compulsory Course, (Compulsory English: A and B), English for Communication</b></p> <ol style="list-style-type: none"><li>1. To acquaint students with communication skills.</li><li>2. To inculcate human values among the students through poems and prose.</li><li>3. To improve the language competence of the students</li></ol> <p><b>Modern Indian Writing in English Translation (Discipline Specific Core) (DSC- A3) (English Paper –I, II) ,</b></p> <ol style="list-style-type: none"><li>1. Acquaints the students with translated Modern Indian literature in English.</li><li>2. Introduces the students to short story as a form of literature with reference to the texts prescribed.</li><li>3. Develops literary competence among students.</li></ol> <p><b>B. A. Part II ABILITY ENHANCEMENT COMPULSORY COURSE (AECC) (CBCS), ENGLISH FOR COMMUNICATION (Paper C, D)</b></p> <ol style="list-style-type: none"><li>1. Enables the students to develop communication skills in English, both oral and written.</li><li>2. Equips the students with the language skills for use in their personal, academic and professional lives.</li><li>3. Develops the students’ essential employability skills.</li><li>4. Helps the students to enter the job market with confidence and the ability to work effectively.</li><li>5. Helps the students to learn and practice both language and soft skills.</li><li>6. Encourages the active involvement of the students in learning process.</li><li>7. Enables the students to cultivate a broad, human and cultured outlook.</li></ol> <p><b>English (Paper III, V) (Semester III, V), LITERATURE AND CINEMA (CBCS)</b></p> <ol style="list-style-type: none"><li>1. Introduces film and its relationship to literature to the students</li><li>2. Acquires film literacy through a working knowledge of basic film terminology</li><li>3. Develops critical approaches to engage with film adaptations</li><li>4. Establishes a clear understanding of literature through film adaptations of literary texts</li><li>5. Introduces the students to the issues and practices of cinematic adaptations</li></ol> <p><b>English (Paper IV, VI) (Semester III, IV),PARTITION LITERATURE (CBCS)</b></p> <ol style="list-style-type: none"><li>1. Creates an awareness of the partition scenario among the students</li></ol>
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2. Explains the hidden human dimensions of the partition to the students
3. Elaborates on the impact of partition on society

### **B. A.III**

#### **Compulsory English, Ability Enhancement Compulsory Course (CBCS), ENGLISH FOR COMMUNICATION**

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

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

#### **INTRODUCTION TO LITERARY CRITICISM (CBCS), Discipline Specific Elective**

##### **Semester V (Paper VII) (DSE- E11) & Semester VI (Paper XII) (DSE-E136)**

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

#### **ENGLISH POETRY (CBCS), Discipline Specific Elective, Semester V (Paper VIII) (DSE – E12) and Semester VI (Paper XIII) (DSE – E137)**

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

#### **ENGLISH DRAMA (CBCS), Discipline Specific Elective, Semester V (Paper IX) (DSE – E13) & Semester VI (Paper XIV) (DSE – E138)**

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

**ENGLISH NOVEL (CBCS), Discipline Specific Elective, Semester V (Paper X) ((DSE – E14) & Semester VI (Paper XV) (DSE – E139)**

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

**LANGUAGE AND LINGUISTICS (CBCS), Discipline Specific Elective, Semester V –Paper XI (DSE - E15) & Semester VI – Paper XVI (DSE - E140)**

1. Students know the concept of communication.
2. Students are familiar with varieties of the English language.
3. Students know different levels of study of the English language.
4. Students know basic units of grammar.

**B.Com. Part I – (Compulsory English) (CBCS) English for Business Communication (Sem-I & II) (Paper- A & B)**

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

**B.Com. Part II – (Compulsory English) (CBCS) English for Business Communication (Sem-III & IV) (Paper- C & D)**

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

**B.Sc-I- Compulsory English (English for communication) (Sem-I & II) (Paper-A & B)**

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

**B.Sc-III- Compulsory English (English for communication) (Sem-V & VI) (Paper-C & D)**

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

1. Communicate in English, in oral and written modes, in their day-to-day lives as well as at workplaces.
2. Face job interviews confidently and efficiently.



	<p>3. Acquire soft skills required at workplaces and in real life.</p> <p>4. Learn group behaviour and team work.</p> <p>5. Learn to value and respect others' opinions and views and develop democratic attitude.</p> <p>6. Face competitive examinations confidently and efficiently with adequate linguistic confidence.</p> <p>7. Acquire professional skills required in media writing such as writing editorials.</p> <p>8. Learn to appreciate and enjoy reading poetry and prose passages.</p> <p>9. Acquire human values and develop cultured outlook.</p>
Marathi	<p><b>B. A. Marathi (Comp.) CGE-1 Sem. I Paper A (शब्दसंहिता)</b></p> <p>१. मराठी भाषा व साहित्याविषयी अभिरुची विकसित करतो/करते.</p> <p>२. मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय करून घेतो/घेते.</p> <p>३. मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्यांविषयी जाणीव निर्माण करतो/करते.</p> <p>४. व्यक्तिमत्व विकास घडवून विविध परीक्षा आणि स्पर्धा परीक्षांची पूर्वतयारी कशी करावी याविषयी आकलन करून घेतो/घेते.</p> <p>५. निबंधलेखनाच्या माध्यमातून भाषा उपयोजनाची कौशल्ये विकसित करतो/करते.</p> <p><b>B.A.I Marathi (Comp.) / CGE 2 Sem II Paper- B (शब्दसंहिता)</b></p> <p>१. मराठी भाषा व साहित्याविषयी अभिरुची विकसित घेतो/घेते.</p> <p>२. मराठी साहित्य परंपरा, लेखक, कवी यांचा परिचय करून घेतो/घेते.</p> <p>३. मातृभाषा, राष्ट्रीय एकात्मता आणि मानवी मूल्यांविषयी जाणीव निर्माण करतो/करते.</p> <p>४. व्यक्तिमत्व विकास घडवून विविध परीक्षा आणि स्पर्धा परीक्षांची पूर्वतयारी कशी याविषयी आकलन करून घेतो/घेते.</p> <p>५. निबंधलेखनाच्या माध्यमातून भाषा उपयोजनाची कौशल्ये विकसित करतो/करते.</p> <p><b>B. A. I Marathi (Opt.) DSC A1 Sem. I Paper-1 (अक्षरबंध)</b></p> <p>१. मराठी भाषा आणि साहित्याविषयी अभिरुची विकसित करून घेतो/घेते..</p> <p>२. मराठी साहित्यातील परंपरा, लेखक, कवी इत्यादींची ओळख करून घेतो/घेते.</p> <p>३. मातृभाषा, राष्ट्रीय एकात्मता आणि उच्च मानवी मूल्यांविषयी जाणीव निर्माण करतो/करते.</p> <p>४. व्यक्तिमत्व विकास होण्याबरोबरच स्पर्धात्मक परीक्षांची पूर्वतयारी करतो/करते.</p> <p>५. चित्रपट आणि प्रसारमाध्यमे यांच्या लेखन आणि उपयोजनाचा अवकाश याविषयी आकलन करून घेतो/घेते.</p> <p><b>B. A. I Marathi (Opt.) DSC-A13 Sem II Paper-2 (अक्षरबंध)</b></p> <p>१. काव्यलेखनाविषयी आवड निर्माण करतो/करते.</p> <p>२. मराठी काव्यपरंपरेच्या इतिहासाविषयी जाणिव जागृती करतो/करते.</p> <p>३. काव्यामधील जीवनमूल्ये रुजवितो/रुजविते,</p>

४. मराठी साहित्यातील उपयोजित मराठी या प्रकारचे आकलन करून घेतो/घेते.

५. मराठीतील लेखन पत्रकारांची माहिती समजून घेतो/घेते.

### **B. A. II Marathi (Opt.) DSC C1 Sem III Paper-3**

**पाठ्यपुस्तक : काय डेंजर वारा सुटलाय**

१. नाटक या वाडःमय प्रकाराचे आकलन करून घेतो/घेते.

२. नाटकातून समकालीन समस्यांची माहिती करून घेतो/घेते.

३. नाट्यक्षेत्रातील ज्ञानसंपादनास चालना निर्माण करतो/करते,

४. अभ्यासातून सभ्यता, संस्कृती राष्ट्रीय एकात्मता व बंधुता वाढीस लागण्यास चालना निर्माणकरतो/करते.

५. संवादलेखन कौशल्ये विकसित करतो/करते.

### **B. A. II Marathi (Opt.) DSC-C2 Sem. IV Paper- 4**

**पाठ्यपुस्तक: काव्यगंध**

१. मराठी काव्यपरंपरा व प्रवाहाची ओळख करून घेतो/घेते.

२. मराठी काव्यातून चित्रित होणारा माणूस आणि समाज यातील परस्पर संबंध समजून घेतो/घेते.

३. कवितेच्या कलात्मक आकृतीबंधाचे मोल समजून घेतो/घेते.

४. काव्यप्रवाहानुरूप काव्यलेखनाचे विशेष समजून घेतो/घेते.

५. प्रात्यक्षिकाव्दारे काव्यलेखन कौशल्य रुजवितो/ रुजविते.

### **B. A. II Marathi (Opt.) DSC-C2 Sem. V Paper-5**

**पाठ्यपुस्तक : माती, पंख आणि आकाश (आत्मचरित्र)**

१. आत्मचरित्र या वाडःमयप्रकाराची ओळख करून घेतो/घेते.

२. इतर वाडःमयप्रकार आणि आत्मचरित्र यातील अभिव्यक्त रुपांचे आकलन करून घेतो/घेते.

३. आत्मचरित्रकाराच्या जडणघडणीतून प्रेरणा घेतो/घेते.

४. वेगवेगळ्या भारतीय प्रांतातील व परदेशातील जीवनदर्शन आकलन करून घेतो/घेते.

५. आत्मवृत्तपर लेखन कौशल्ये विकसित करतो/करते.

### **B. A. II Marathi (Opt.) DSC-C26 Sem. VI Paper-6**

**पाठ्यपुस्तक- जुगाड (कादंबरी)**

१. कादंबरी वाडःमयप्रकाराची ओळख करून घेतो/घेते.

२. समकालीन कादंबरीतील नव्या अवकाशाचा शोध घेऊन अधुनिकतेमधील आंतरविरोध समजून घेतो/घेते.

३. मानवी मूल्यांविषयी माहिती करून घेतो/घेते.

४. कादंबरी लेखनाचे विशेष समजून घेतो/घेते.

५. वृत्तांत लेखन कौशल्ये रुजवितो/रुजविते.

### **B. A. III Marathi Semi-V Paper No. 7 (साहित्यविचार)**

१. पौर्वात्य, पाश्चात्य व आधुनिक भारतीय साहित्यशाखाची माहिती करून घेतो/घेते,

२. ललित व ललितेतर साहित्याचे स्वरूप समजून घेतो/घेते.

३. साहित्याची लक्षणे आणि प्रयोजन आकलन करून घेतो/घेते.

४. साहित्याची निर्मितीप्रक्रिया आणि स्वरूपाची माहिती घेतो/घेते.

५. प्रतिभा शक्तीची ओळख करून घेतो/घेते.

६. अलंकाराचे स्वरूप व महत्व आकलन करून घेतो/घेते.

### **B. A. III Marathi Semi-VI Paper No. 13 (साहित्यविचार)**

१. शब्दशक्तीचे स्वरूप व प्रकारांचे आकलन करून घेतो/घेते.

२. साहित्यातील रसप्रक्रियेचे स्वरूप घेतो/घेते.
३. साहित्याची आस्वाद प्रक्रिया समजून घेतो/घेते.
४. साहित्यनिर्मितीमधील आस्वादाच्या आनंदाची मीमांसा आकलन करून घेतो/घेते.
५. वाङ्मयीन दृष्टीकोण विकसित करतो/करते.

**B. A. III Marathi Semi-V Paper No. 8 (मराठी भाषा आणि भाषाविज्ञान)**

१. आधुनिक भाषाविज्ञानाचा परिचय करून घेतो/घेते.
२. भाषाविज्ञान आणि मराठी भाषा यांचा संबंध जाणून घेतो/घेते.
३. भाषेची उत्पत्ती, स्वरूप व कार्य समजून घेतो/घेते.
४. ध्वनिपरिवर्तनाची कारणे व प्रकाराची माहिती करून घेतो/घेते.
५. मराठी भाषेची वर्णव्यवस्था समजून घेतो/घेते.
६. मराठी भाषेबद्दल विद्यार्थ्यांमध्ये आवड विकसित करतो / करते.

**B. A. III Marathi Semi-VI Paper No. 13 (मराठी भाषा आणि भाषाविज्ञान)**

१. अर्थपरिवर्तनाच्या कारणाची व प्रकारांची माहिती करून घेतो/घेते.
२. मराठीचा उगमकाळ व तिच्या जनकभाषेविषयी माहिती करून घेतो/घेते.
३. मराठीची शब्दव्यवस्था समजून घेतो/घेते.
४. मराठी भाषेबद्दल आवड विकसित करतो/करते.

**B. A. III Marathi Semi-V & VI Paper No.9&14 -मध्ययुगीन मराठी वाङ्मयाचा इतिहास : प्रारंभ ते इ.स. १५०० (XI)**

**आणि मध्ययुगीन मराठी वाङ्मयाचा इतिहास : इ.स.१५०० ते इ.स. १८०० (XIV)**

१. मध्ययुगीन मराठी वाङ्मय परंपरांचा व इतिहासाचा परिचय करून घेतो/घेते.
२. या कालखंडातील वाङ्मय रचनाप्रकाराचा परिचय करून घेतो/घेते.
३. या कालखंडातील वाङ्मय निर्मितीच्या प्रेरणाचा परिचय करून घेतो/घेते.
४. या कालखंडातील सांस्कृतिक पार्श्वभूमीचे आकलन करून घेतो/घेते.
५. या कालखंडातील प्रमुख संप्रदाय व ग्रंथनिर्मिती यांचा अनुबंध समजून घेतो/घेते.
६. या कालखंडातील मराठी भाषेचे स्वरूप समजून घेतो/घेते.

**B. A. III Marathi Semi-V Paper No. 10 (मराठी भाषा व अर्थार्जनाच्या संधी)**

१. सर्जनशील लेखनप्रक्रिये विषयी आकलन करून घेतो/घेते.
२. उपयोजित सर्जनशील लेखनाची दिशा समजून घेतो/घेते.
३. वैचारिक लेखनाच्या स्वरूपाविषयी माहिती करून घेतो/घेते.
४. शोधनिबंध व प्रकल्पलेखन कौशल्य विकसित करतो/करते.
५. आंतरजालावरील मराठी लेखनपध्दती विषयी माहिती घेतो/घेते.

**B. A. III Marathi Semi-VI Paper No. 15 (मराठी भाषा व अर्थार्जनाच्या संधी)**

१. प्रसारमाध्यमांतील अर्थार्जनाच्या संधीचा परिचय करून घेतो/घेते.
२. विविध क्षेत्रातील भाषिक कौशल्ये विकसित करून घेतो/घेते.
३. लेखन, वाचन, भाषण आणि श्रवण या कौशल्याचा विकास करून घेतो/घेते.
४. उद्योग व सेवा क्षेत्रात मराठी भाषेद्वारे अर्थार्जनप्राप्ती संदर्भात माहिती करून घेतो/घेते.
५. मुद्रित शोधन पध्दतीची माहिती घेतो/घेते.

**B. A. III Marathi Semi-VI Paper No. 11 (वाङ्मयप्रवाहाचे अध्ययन :मध्ययुगीन)**

१. मध्ययुगीन महाराष्ट्र व महानुभव पंथ यांचा परिचय करून घेतो/घेते.

	<p>२. महानुभव वाङ्मयाच्या प्रेरणा व स्वरूप समजून घेतो/घेते.  ३. महानुभव ग्रंथकार केसोबास यांचा परिचय करून घेतो/घेते.  ४. दृष्टांत पाठातील आशय स्वरूप व अभिव्यक्ती माहिती घेतो/घेते.  ५. दृष्टांत पाठातील भाषिक वैभवाचा परिचय करून घेतो/घेते.  <b>B. A. III Marathi Semi-VI Paper No. 16 (वाङ्मय प्रकाराचे अध्ययन : ललित गद्य) [व्यक्तीचित्रे]</b>  १. ललित गद्य वाङ्मय प्रकाराचा परिचय करून घेतो/घेते.  २. व्यक्तिचित्र संकल्पना व स्वरूप या विषयी माहिती घेतो/घेते.  ३. प्रवाह अनुरूप मराठीतील व्यक्ती चित्रांचे स्वरूप समजून घेतो/घेते.  ४. मुलखावेगळी माणसं मधील व्यक्तिविशेष यांचे आकलन करून घेतो/घेते,  ५. मुलखावेगळी माणसं मधील शैक्षणिक सामाजिक, सांस्कृतिक, राजकीय, पर्यावरण आणि कौटुंबिक भावविश्व याविषयी माहिती करून घेतो/घेते.  ६. मुलखावेगळी माणसं मधील ग्रामीण व उपेक्षितांच्या जीवनाचे चित्रण अभिव्यक्ती, निवेदनशैली व भाषाविशेष याची माहिती करून घेतो/घेते,</p>
Hindi	<p><b>B. A. Part - I</b>  <b>Hindi Compulsory - A</b>  <b>fgnh ¼/fuok; ½</b>  <b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• fgnhHkk"kkRFkk0; kdj.k dk v/; ; u djkuA</li> <li>• I`tukRedy[ku dh fofo/k fo/kk/vka ¼dfork] dgkuh] ; k=koRr] fji krkzt] I k{kkRdkj] n' ; &amp;I kfgR; ] i=dkfjrk½ I s i fjfprdjkuA</li> <li>• I`tukRedy[ku ds fofo/k {k=ka dk i fjp; djkuA</li> <li>• I`tukRedy[ku ds fofo/k {k=ka ds egRRorFkmi ; kfxrk I s i fjfprdjkuA</li> </ul> <p><b>B. A. Part - I</b>  <b>Hindi Compulsory - B</b>  <b>fgnh ¼/fuok; ½</b>  <b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>• fgnh ds fofo/k : i ka dk i fjp; djkuA</li> <li>• i z kstueydfgnh dk i fjp; djkuA</li> <li>• i=kpkj dk Lo: i rFkki dkjka dk i fjp; djkuA</li> <li>• vupkn] foKki uvk]I ekpkjys[ku I s i fjfprdjkuA</li> </ul>

- 0; kogkfjdy[ ku dk egRRorFkkmi ; kfxrk I s ifjprdj kuka

**B. A. Part - I**

**Hindi Optional**

fgnh ¼fo' ksk , fPNd½

**Course Outcome:**

- Nk=ka dh fgnhl kfgR; ds ifr #fp c<kukrFkkNk=kadkl kfgR; dh fofo/k fo/kkvka I s ifjprdj kuka
- Nk=ka dksfnh d s ifrfuf/k xn; dkjka , odf; ka I s ifjprdj kuka
- Nk=ka efgnhHkk"kk d s Jo.k] i Bu , oays[ ku dh {kerkvkadksodfl rdj kuka
- fucdk] dgkuh] js[ kfp=] , dkdh] fj i krkzt] I lej.k] 0; X; vfnfo/kkvka ds ek/; e I s Nk=ka dk HkkokRedfodkl dj kuka
- Nk=ka euSrdeW; ] jk"Vh; eW; , oamRrjnkf; Ro d s ifrvkLFkkfuekZ kdj kuka
- Nk=ka eijk"Vª ds ifri e] jk"Vh; , D; LFkki uk , od kelftdifrcn/krkgrijk"VHkk"kkfgnh dk ipkj&i d kdj kuka
- Nk=ka dh fopkj {kerkrFkkdYi uk' khyrtdks c<koknsuka

**B. A. Part - II**

i zu = &3 vfLerkeydfoe"kvkjsfgnhxn; I kfgR;

**Course Outcome:**

- dFkl kfgR; dk Lo: i] rRo , oadkja dk v/; ; u dj kuka
- I eh{kk ekunMka ds vk/kkj i jdFkl kfgR; dk v/; ; u dj kuka
- dFkrjI kfgR; dk I eh{kkRed v/; ; u dj kuka
- dFkkvksdFkrjI kfgR; dk orZekui kl fxdrk ds I kfk v/; ; u dj kuka

**B. A. Part - II**

i zu = & 4 fgnhl rdk0; rFkkjk' Vh; dk0; /kkjk

**Course Outcome:**

- Nk=ka dh fgnhl kfgR; ds ifr #fp c<kukrFkkNk=kadkl kfgR; dh fofo/k

	<p>fo/kkvka l s i f j f p r d j k u k A</p> <ul style="list-style-type: none"> <li>Nk=kdkse/; dkyhufgnhdfo; ka l s i f j f p r d j k u k A</li> <li>Nk=kæufsrdeW; ] jk' Vh; eW; , omRrjnkf; Ro ds i frvklFkfkuekZ kdjuka</li> <li>Nk=kdksvk/kfudfgnhdforkef=r fofo/k foe"kkā l s i f j f p r d j k u k</li> </ul> <p><b>B. A. Part - II</b></p> <p>i7ui = &amp; 5 रोजगार पूरक हिंदी</p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>छात्रों में हिंदी में कार्य करने की विचार क्षमता विकसित करना.</li> <li>रोजगारपरक शिक्षा तथा कौशल्य प्रदान करना.</li> <li>कार्यालय और व्यवसाय में हिंदी प्रयोग का कौशल्य ज्ञान विकसित करना.</li> <li>पत्राचार के स्वरूप का परिचय करना.</li> </ul> <p><b>B. A. Part - II</b></p> <p>i7ui = &amp; 6 vflerkeydfoe"kvkfgnh in; l kfgR;</p> <p><b>Course Outcome:</b></p> <ul style="list-style-type: none"> <li>Nk=kdksgnhhdfo; ka l s i f j f p r d j k u k A</li> <li>Nk=kæifgnhHkk' kk ds Jo.k] i Bu , oys[ku dh {kerkdksodfl rdjuka</li> <li>Nk=ka dh fgnhl kfgR; ds i fr #fp c&lt;kukrFkkNk=kdkk kfgR; dh fofo/k fo/kkvka l s i f j f p r d j k u k A</li> </ul> <p>Nk=kæufsrdeW; ] jk' Vh; eW; , omRrjnkf; Ro ds i frvklFkfkuekZ kdjuka</p>
History	<p><b>B.A.I</b></p> <p><b>Paper I Rise of the Maratha Power (1600-1707)</b></p> <ol style="list-style-type: none"> <li>The course will explore the origins, establishment and growth of the the Maratha Power under the leadership under Chhatrapati Shivaji Maharaj and his successors Sambhaji and Queen Tarabai.</li> </ol> <p><b>Paper II Polity, Society and Economy under the Marathas (1600-1707)</b></p> <ol style="list-style-type: none"> <li>Introduce the students to the important factual history of state policy and socio-economic conditions in the Marathas times</li> </ol> <p><b>B.A.II</b></p> <p><b>PAPER III- HISTORY OF MODERN MAHARASHTRA (1900 to 1960)</b></p>

1. Understand the beginnings and growth of nationalist consciousness in Maharashtra
2. Explain the contribution of Maharashtra to the national movement
3. Give an account of various movements of the peasants, workers, women and backward classes
4. Know the background and events which led to the formation of separate state of Maharashtra.

**PAPER IV: HISTORY OF INDIA (1757-1857)**

1. Acquaint himself with significant events leading to establishment of the rule of East India Company
2. Know the colonial policy adopted by the company to consolidate its rule in India
3. Understand the structural changes initiated by colonial rule in Indian economy.
4. Explain the various revolts against rule of the East India Company.

**PAPER- V: HISTORY OF MODERN MAHARASHTRA (1960-2000)**

1. Acquaint himself with the contribution of eminent leaders of Maharashtra
2. Know about the economic transformation of Maharashtra
3. Understand the salient features of changes in society
4. Explain the growth of education
5. Understand the events which lead to the growth of nationalism in India
6. Acquaint himself with major events of the freedom struggle under the leadership of Mahatma Gandhi
7. Explain the contribution of Revolutionaries, Left Movement and Indian National Army
8. Know the concept of Communalism and the causes and effects of the partition of India

**B.A. Part -III**

**Semester –V, Course VII DSE E-61**

**Paper VII : Early India (from beginning to 4th c. BC)**

- 1) Understand the transition of humans in India from Hunters to Farmers
- 2) Explain the transition from Early to Later Vedic period.
- 3) Clarify the causes for the first and second urbanizations
- 4) Give an account of the teachings of Gautama Buddha and Vardhamana Mahavira
- 5) Describe the rise and growth of the Mauryan Empire
- 6) Explain the salient features of Ashoka's Dhamma

**B.A. Part III**

**Semester V, Course No: VIII DSE E-62**

**History of Medieval India (1206-1526 AD )**

- 1) Describe the different types of historical sources available for writing the history of medieval India
- 2) Explain the contributions of medieval rulers like Allaudin Khilji, Muhammad-bin-Tuqhlq, Krishnadevraya, and Mahmud Gavan

3) Give an account of the administration and economy of the Delhi sultanate and

Vijayanagar Empire

4) Elucidate the significant developments which took place in religion, society and culture

**B.A. Part III**

**Semester V, Course No: IX DSE E-63**

Age of Revolutions

- 1) Explain the causes and consequences of the Reformation
- 2) Give an account of the role played by Martin Luther
- 3) Explain the salient features of the Industrial revolution
- 4) Give an account of the American revolution
- 5) Explain the causes, effects and major events of French Revolution
- 6) Explain the role of major leaders of the French Revolution

**B.A. Part - III**

**Semester V, Course No. X DSE E-64**

Political History of the Marathas

- 1) Describe the political conditions of the Marathas upto the year 1740
- 2) Explain the role of Balaji Bajirao.
- 3) Explain the causes and effects of the Battle of Panipat.
- 4) Understand the political condition of the Marathas after 1761.
- 5) Critically analyze the causes for the decline of Maratha power.

**B.A. Part III:**

**Semester V, Course No. XI DSE E-65**

History: Its Theory

- 1) Understand the definition and scope of the subject of History
- 2) Know the process of acquiring historical data
- 3) Explain the process of presenting and writing history
- 4) Understand the methods of writing history

**B.A. Part III**

**Semester VI, Course No. XII DSE E-186**

**Ancient India (From 4th c. BC to 7th c. AD)**

- 1) Know the political, economic and religious developments which took place in early historic India
- 2) Explain the role played by Major Satavahana, Kushana, Gupta and Vakataka Kings
- 3) Give an account of the developments in the Post-Gupta period
- 4) Have an informed opinion about the society and culture of Ancient India

**B.A. Part III**

**Semester VI, Course No. XIII DSE E-187**

**History of Medieval India ( 1526-1707 AD )**

- 1) Know about the various sources for writing Medieval Indian history
- 2) Explain the role of rulers like Babar, Akbar, Chandbibi and Ibrahim Adilshah II
- 3) Gain knowledge about the administrative and revenue system
- 4) Describe the condition of Industry and trade
- 5) Explain important developments in religion, society and culture

**B.A. Part III**

**Semester VI, Course No: XIV. DSE E-188**



	<p><b>Making of the Modern World (16th to 19th Century)</b></p> <ol style="list-style-type: none"> <li>1) Know the causes and consequences of the Glorious revolution in England</li> <li>2) Explain the concept of Nationalism and account for its rise and spread.</li> <li>3) Describe the unification of Italy and Germany.</li> <li>4) Give an account of the rise, growth and impact of Imperialism</li> <li>5) Explain the significance of the Partition of Africa</li> <li>6) Know the life and thoughts of important leaders like Metternich, Karl Marx and Abraham Lincoln</li> </ol> <p><b>B.A. Part III</b>  <b>Semester VI, Course No. XV DSE E-189</b>  <b>Polity, Economy and Society under the Marathas</b></p> <ol style="list-style-type: none"> <li>1) Know the various sources for writing the history of the Marathas</li> <li>2) Explain the significant developments in the polity of the Marathas</li> <li>3) Describe the economic conditions</li> <li>4) Explain the social conditions.</li> </ol> <p><b>B.A. Part III</b>  <b>Semester VI , Course No. XVI DSE E-190</b>  <b>Methods and Applications of History</b></p> <ol style="list-style-type: none"> <li>1) Understand the nature of archival sources</li> <li>2) Gain conceptual clarity about recent trends in history.</li> <li>3) Know about the application of history in museums.</li> <li>4) Explain the concept and scope of heritage tourism.</li> </ol>
Economics	<p style="text-align: center;"><b>B. A. I Economics (CBCS Pattern)</b></p> <p style="text-align: center;"><b>Semester I</b></p> <p><b>Indian Economy - I</b></p> <ol style="list-style-type: none"> <li>1.To introduce the students to the Indian economy.</li> <li>2.To develop an understanding of challenges facing the Indian economy.</li> <li>3.To acquaint the students with Structure of the Indian economy and Changes Taking Place there in</li> </ol> <p><b>Indian Economy - II</b></p> <ol style="list-style-type: none"> <li>1. To acquaint the students with the policies and performance of major sectors in Indian Economy.</li> <li>2.To explain the economic reforms introduced in India since 1991.</li> </ol> <p><b>Semester III</b></p> <p><b>Principles of Co-operation</b>  <b>Course – I GE (IDS)</b></p> <p>The objective of this paper is to create awareness about the working of co-operatives in Ruraland Urban area. The Co-operative movement has been considered as the third important sector in the economy followed by private and public sector. The principles of co-operation and the values of the co-operative institutions need to be studied in Indian context.</p> <p><b>Macro Economics -I (Paper-III) (Sem-III)</b></p> <p>The purpose of teaching this paper is to introduce the basic primary and</p>

analytically important concepts, theories and policies in the working of the economy to the learners. It attempts to enable the students to apply various concepts in the process of policy making, planning of measures to ensure and achieve the fundamental objectives of macroeconomic policy.

**Money and Banking Paper No. - IV**

To create the awareness among the students and Job Prospects in Banks and FinancialSector. Clear understanding of the operation of banks and financial institutions to thestudents with practical inputs.

**Semester IV**

**CO-OPERATIVES IN INDIA**

**Course – II GE (IDS)**

The objective of this paper is to create awareness about the working of co-operatives on Rural and Urban area. The Co-operative movement has been considered as the third important sector in the economy followed by private and public sector. The principles of co-operation and the values of the co-operative institutions need to be studied in Indian Context.

**Macro Economics - II (Paper-V)**

Macro Economics is aggregative economics which examines the interrelations among the various aggregates. Macro Economics is not only scientific method of analyses, but also a body of empirical economic knowledge. This paper equips the students to understand the basic theoretical framework underling in the field of macro economics.

**Banks and Financial Markets Paper No. - VI**

To create the awareness among the students and Job Prospects in Banks and FinancialSector. Clear understanding of the operation of banks and financial institutions to thestudents with practical inputs.

**(Semester V)**

**Principles of Micro Economics (Elective Course- 7) DSE E-71**

1. Explain what economics is and explain why it is important
2. Understand consumer decision making and consumer behaviour
3. Define the concept of utility and satisfaction
4. Derive revenue and cost figures as well as curves
5. Understand producer decision making and producer behaviour

**Economics of Development (Elective Course- 8) DSE – E - 72**

1. Identify the dimensions of development
2. Distinguish the fundamental and contemporary development debate
3. Know the theories of economic development
4. Realise the role of state in economic development

**International Economics- I (Elective Course- 9) DSE – E 73**

1. Explain international trade
2. Understand the measurement of gains from international trade
3. Distinguish different rates of exchange

**Research Methodology in Economics- I (Elective Course- 10) DSE – E 74**

1. Get acquainted with the basic concepts of research and its methodologies.
2. Select and define appropriate research problem and parameters.

**History of Economic Thoughts- I (Elective Course- 11) DSE – E 75**

1. Understand the basic economic ideas of various economic thinkers of the world
2. Understand the development of economic thought

**(Semester VI)**

**Principles of Micro Economics- II (Elective Course- 12) DSE E 196**

1. Identify the market structure
2. Analyse the economic behaviour of individual firms and markets
3. Analyse a firm's profit maximising strategies under different market conditions
4. Understand the factor pricing

**Economics of Planning (Elective Course- 13) DSE – E 197**

1. Get acquainted with economic planning and its importance in development
2. Get acquainted with development of planning and planning machinery in India
3. Evaluate sectoral performance of the Indian economy
4. Compare and analyse Indian models of economic development

**International Economics- II (Elective Course- 14) DSE – E 198**

1. Distinguish between balance of trade and balance of payments
2. Analyse the balance of payments
3. Understand the various types of foreign capital

	<p>4. Analyse the impact of international institutions on Indian economy</p> <p><b>Research Methodology in Economics- II (Elective Course- 15) DSE – E - 199</b></p> <ol style="list-style-type: none"> <li>1. Understand the sampling techniques as a method of data collection</li> <li>2. Use techniques of data analysis in research</li> <li>3. Write a research report and thesis</li> <li>4. Write a research proposal (grants)</li> </ol> <p><b>History of Economic Thoughts- II (Elective Course- 16) DSE – E 200</b></p> <ol style="list-style-type: none"> <li>1. Understand the economic concepts and theories of Neo-Classical and Indian thinkers.</li> <li>2. Understand the development of economic thoughts</li> </ol>
Political Science	<p><b>B.A. Part -I</b></p> <p><b>Introduction to Political Science P. No (I)</b></p> <p>Acquire domain knowledge.</p> <ol style="list-style-type: none"> <li>1. Understand importance of Political Science.</li> <li>2. Understand sub disciplines of Political Science.</li> <li>3. Understand concept of state and democracy.</li> <li>4. Understand Key concepts of Political Science.</li> </ol> <p><b>Indian Constitution.P. No (II)</b></p> <ol style="list-style-type: none"> <li>1. The student will get knowledge about making and philosophy of Indian Constitution.</li> <li>2. The students will become aware about Fundamental Rights.</li> <li>3. The students will become aware about Directive principals and Fundamental Duties.</li> <li>4. The students will understand working of Legislature, executive and Judiciary.</li> </ol> <p><b>Indian political process P. No (III)</b></p> <ol style="list-style-type: none"> <li>1. The student will get knowledge about Indian Government.</li> <li>2. The student will get knowledge about Indian parliament, &amp; executive, and Judiciary.</li> <li>3. The student will become aware about Indian Federalism.</li> </ol>

4. The student will understand about Indian political system.
5. The student will understand the process of Parliamentary Democracy,

**Indian political thought P. No (IV)**

1. Student will get knowledge about Ancient Indian political thought.
2. Student will get knowledge about modern Indian political thought..
3. student will become aware about thought of Indian political thinker like Koutilya, Mahatma Phule, M. G. Ranade & B. G. Tilak.
4. Student will become stable Indian Citizen for success of Indian democracy.
5. leadership will build in Student

**Local self Government in Maharashtra P. No (V)**

1. Student will become aware about rural local self government.
2. Student will get total knowledge about Urban local self government.
3. stage daring and leadership will develop in the Student.
4. Student will be Stable Citizen and Voters.
5. The student will get knowledge about Indian Government Machinery.

**Indian Political Thought P. No (VI)**

1. The student will get knowledge about Indian political thought and Ideology.
2. The student will express our own thought and criticize to Indian political thought.
3. The student will be aware about thought of M. K. Gandhi, Jawaharlal Nehru, Dr. Ambedkar, and M. N. Roy.
4. The leadership will build in the student.

**Public Administration P. No (I) IDS**

1. The student will get Knowledge about Indian Administrative System .
2. The student will be aware the process of Administrative Service.
3. The student will get knowledge about welfare states.
4. The outcomes of this course is student acquire knowledge of

	<p>personnel management</p> <p>5. The outcomes of this course is student acquire knowledge of latest concept of Public Administration.</p> <p><b>Public Administration P. No (II) IDS</b></p> <ol style="list-style-type: none"> <li>1. The student will understand about Indian Administrative Service.</li> <li>2. The student will get knowledge about Union Public Service Commission.(UPSC), Maharashtra Public Service Commission.(MPSC),</li> <li>3. The student will acquire the knowledge of competitive examination.</li> <li>4. The student will express his knowledge and own thought .</li> <li>5. The student will become good citizen.</li> </ol>
<p>Geography</p>	<p><b>B. A. Part - I</b></p> <p><b>Paper - I Physical Geography</b></p> <p><b>Paper - II Human Geography</b></p> <p><b>Course Outcome:</b></p> <p>The outcome of this course is student acquire knowledge about the latest concepts in Physical Geography and Human Geography, Specifically in Atmosphere, Lithosphere, Fluvial Cycle, Hydrosphere, Human races, Population growth, Characteristics of Population and Settlements.</p> <p><b>B. A. Part - I</b></p> <p><b>Science Technology and Development (STD)</b></p> <p><b>Course Outcome:</b></p> <p>The outcome of this course is student acquire knowledge about latest concepts in Science Technology and Development, Specifically in Fundamental concept in scientific thinking, Contribution of Eminent Scientist, Non Conventional Power Resources of India, Disaster Management, Communication and Information Technology Space Research and Defense and Ocean Research.</p> <p><b>B. A. Part - II</b></p> <p><b>Paper - III Soil Geography</b></p> <p><b>Course Outcome:</b></p> <ol style="list-style-type: none"> <li>1. Students should know soil geography which is the fundamental branch of Physical Geography.</li> </ol>

2. To familiarize the students with the basics and fundamental concepts of soil geography.
3. With this study, students understand soil is key resource for the development of any country.
4. Students are aware about process of soil formation and development as well as soil properties.
5. Students should know classification, characteristics and distribution of soils.
6. Students should know the concepts related to soil degradation and erosion, causes and controlling factors of soil erosion, conservation of soils.
7. Students should know the concept, need and methods soil of management.

**B. A. Part - II**

**Paper - IV Resource Geography**

**Course Outcome:**

1. Students understand the concept and classification of Resources.
2. Students examine the major resources (water, forest, energy and human) with their distribution, utilization and problems.
3. Students study the sustainable resource development.
4. Students familiarize the students with cartographic techniques.

**B. A. Part - II**

**Paper - V Oceanography**

**Course Outcome:**

1. Students know oceanography is the fundamental branch of Physical Geography.
2. To familiarize the students with the basic and fundamental concepts of oceanography.
3. With this study, students understand marine is key resource for the development of any country.
4. Students know physical and chemical properties of oceans.
5. Students know types of oceanic currents and currents of Atlantic, Pacific and Indian oceans.

6. Students know hypsographic curve, wind rose, iso-salinity lines and isotherms.

**B. A. Part - II**

**Paper - VI Agricultural Geography**

**Course Outcome:**

1. Students understand the concept and development of Agriculture.
2. Students examine the role of agricultural determinants towards the changing cropping pattern.
3. Students study the Green Revolution.
4. Students familiarize the students with the Agricultural concepts and modern technologies used in Agriculture.

**B. A. Part - II (IDS)**

**Paper - I Concepts in Tourism Geography**

**Course Outcome:**

1. Students familiarize the students with aspects of tourism which have a relation with the subject matter of Geography
2. Students orient the students to the logistics of tourism industry and the role of tourism in regional development.
3. Students understand the impact of tourism on physical and human environments.
4. Students familiarize the students with local, regional and national tourism.

**B. A. Part - II (IDS)**

**Paper - II Development and Planning of Tourism**

**Course Outcome:**

1. To familiarize the students with aspects of tourism which have a relation with the subject matter of Geography
2. To orient the students to the logistics of tourism industry and the role of tourism in regional development.
3. To understand the impact of tourism on physical and human environments.
4. To familiarize the students with local, regional and national tourism.



<p>Commerce</p>	<p><b>B.Com I</b></p> <p><b>Financial Accounting</b>  To know Basic concept of Accounting.  To study Firms Amalgamation, Consignment and Accounts of Professionals.  To study Single Entry System Branch Accounts.  To study introductory part of Computerized Accounting System.</p> <p><b>Management Principles &amp; Application</b>  To understand basic management concepts, principles and practices.  To Study detailed understanding of basic management functions.</p> <p><b>Principles of Marketing</b>  The graduates know the basic knowledge of concepts, principles, tools and techniques of marketing.  They have basic knowledge of 4P's of marketing and retailing.</p> <p><b>Insurance</b>  They have basic knowledge of principles of General Insurance and Life Insurance.  This course is to enable students to know the fundamentals of general insurance.</p> <p><b>B.Com II</b></p> <p><b>Corporate Accounting Paper</b>  Explain the accounting entries of issue shares and profit/loss prior to incorporation  Demonstrate accounting for issue of debentures and redemption of debentures.  Simulate practice of preparing financial statements as per the provisions of Indian Companies Act 2013 and practice of accounting for liquidation of companies.  Practice the fundamental accounting process and practice the store accounting through Tally ERP.  Compute the value of shares as per distinct methods and differentiate between them.</p> <p><b>Fundamentals of Entrepreneurship</b>  To impart theoretical knowledge of Entrepreneurship and develop Entrepreneurship qualities and skills among the students.  To acquaint students with steps involved in the formation of small enterprises, family business in India and enlighten students with Recent Trends and Concepts in Entrepreneurship.  To impart conceptual knowledge of Service and Agro Entrepreneurship.  To aware students about Business Plan and Project Report.  To inspire the students through successful stories of Entrepreneurs.</p> <p><b>Business Statistics</b>  The student will be able to explain the scope of statistics in business, perform classification and tabulation, and represent the data by means of simple diagrams and graphs.  The student will be able to explain and apply sampling techniques in real life.  The student will be able to summarize data by means of measures of central tendency and dispersion.</p>
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The student will be able to explain the merits and demerits of various measures of central tendency and dispersion.

The student will be able to perform analysis of bivariate data using simple correlation and simple linear regression.

Compute unconditional and conditional probabilities and apply laws of probabilities.

The student will be able to identify the applications of Binomial and normal distributions.

The student will be able to measure trend and seasonal variations in time series data.

The student will be able to compute and interpret simple and weighted index numbers.

The student will be able to construct and apply variable and attribute control charts.

### **B.Com III**

#### **Modern Management Practice**

To impart knowledge of modern management.

To understand concepts of CRM.

To know the concepts of emotional and social intelligence.

To understand the concept of lean and talent management.

To impart knowledge of total quality management.

To understand the Japanese and Chinese Management Practices.

To know the concept of Event and Performance Management.

To understand the concept of time and stress management.

#### **Business Regulatory Framework**

To understand Contract Act-1872

To understand Labour Laws

To understand Sale of Goods Act-1932 and Goods and Service Tax Act (GST)

To understand Indian Partnership Act-1932 and Limited Liability Partnership Act- 2008

To understand Company Act 2013

To understand Security Exchange Board of India Act-1992, Consumer Protection Act-1986 and Competition Act-2002

To understand Business Transactions and Cyber Laws

To understand Negotiable Instrument (Amendment) Act-2015

#### **Co-operative Development**

To study the meaning and principles of Co-operation.

To study the agricultural and Non-agricultural Credit Co-operative institutions and Co-operative credit system

To Study the important cooperative organizations, cooperative legislations and fund management

To understand the institutional arrangement for cooperative education and training

To understand the nature, registration, legislation and audit of housing cooperatives and cooperative audit system and provisions.

#### **Business Environment**

Student should be able to understand the significance and position of Indian economy at the world level.

Students should study the scenario of agricultural and industrial sectors.

	<p>Student should aware regarding Indian economy is facing some of the fundamental economic problems. They should able to make plans and solutions to these being as a citizen.</p> <p>Student should understand the correlations between economical and social problems.</p> <p>Students will understand the Indian and global economic environment.</p> <p>Students will equip with proper knowledge of Indian economic planning.</p> <p>Students will enable with the knowledge of the plans and strategies toward foreign capital and multinational corporations.</p> <p>Students will get acquainted with the functions, mechanism and performance of international financial, trade and regional cooperation institutions.</p> <p><b>Advanced Accountancy</b></p> <p>Practice the preparation of financial statements of banks.</p> <p>Demonstrate accounting for farms and hire purchase system.</p> <p>Simulate accounting situations of insurance claim.</p> <p>Explain the accounting process on Tally with GST.</p> <p>To understand the concept and types of audit.</p> <p>To identify the residential status and its implication on tax liability.</p> <p>To understand the concept of exemption from income.</p> <p>To know the computation of income from various sources as well as total income</p> <p>To understand the basic concepts of income tax and basis of charge.</p> <p>To identify the residential status and its implication on tax liability.</p> <p>To understand the manner of computation of total income.</p> <p>To know the basic concepts about GST and their practical knowledge.</p> <p>To understand the basic concepts in Cost Accounting.</p> <p>To know the financial statement and their analysis.</p> <p>To Know the Cash flow from Activities.</p>
Computer Application	<p><b>BCA I</b></p> <p><b>Introduction to Programming using ‘C’</b></p> <p>After Completion of this course the student will be able to - 1. Able to implement the algorithms and draw wcharts for solving Mathematical problem. 2. Ability to design and develop Computer programs, analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.</p> <p>3. Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures and file Handling. 4. Develop confidence for self education and ability for life-long learning needed for computer language."</p> <p><b>Principles of Management</b></p> <p>"After completion of this course students will be able to -</p> <p>1. Understand the influence of historical forces on current practice of management. 2. Understand frameworks in the four functions of management.</p> <p>3. Understand leadership styles to anticipate the consequences of each leadership style 4. Be able to identify and apply appropriate management techniques</p> <p>for organizations; and 5. Understand social sponsibility involved in business</p>

situations."

### **Business Communication**

"After completion of this course students will be able to -

1. Communicate in English in written as well as oral mode 2. Make presentations in English 3. Do effective business correspondence"

### **Office Automation**

"After completion of this course students will be able to - 1) Understand the components of office automation

2) Perform operations using MS Word and PowerPoint 3) Surf details through Internet

4) Understand and discuss about the use of Office Package and internet in daily life"

### **BCA semll Database Management System**

"After completion of this course students will be able to - 1) Describe the basic concepts of DBMS and various databases used in real applications 2) Demonstrate the principles behind systematic database design approaches. 3) Design the database structure by applying the concepts of Entityrelational model and Normalization. 4) Learn MS-Access for database creation and handling transactions."

### **Operating System**

"After completion of this course students will be able to - 1) Possess knowledge of Operating Systems and their types.2) Apply the concept of a process and scheduling algorithms.3) Realize the concept of deadlock and different ways to handle it.4) Understand various memory management techniques and file system."

### **" Object Oriented Programming Using C++"**

"After completion of this course students will able to -

1) Understand object-oriented programming and advanced C++ concept. 2) Apply the concepts of object, classes and constructor. 3) Design C++ Programs based on object, class, inheritance, abstraction, encapsulation, dynamic binding and polymorphism. 4) Implement concept of polymorphism in program."

### **Financial Accounting with Tally**

"After completion of this course students will able to –

1. Use basic accounting terminology, procedures and systems of maintaining accounting records. 2. derstand financial statements 3. Learn to create company, enter accounting voucher entries and also print financial statements, etc. in Tally. 4. Demonstrate MIS reports in Tally ERP."

### **"Mathematical Foundations ForComputer Applications"**

"After completing this course, students should demonstrate competency in the

following skills:1) Basic knowledge of set theory, functions and relations concepts, matrix needed for designing and solving problems. 2) Construct simple mathematical proofs and possess the ability to verify them. 3) Write an argument using logical notation and determine if the argument is valid or is not valid. 4) Use graph algorithms to solve problems."

### **BCA semlll Web Technology**

After completion of this course student should be able to- 1. Understand

basics of website and web development life cycle. 2. Design website using HTML and CSS 3. Implement client side scripting for website development 4. Understand importance and working of HTML5

**Computer Network and Internet**

"After completion of this course student should be able to- 1. Understand the concept of computer network.

2. Identify different components required to build different networks. 3. Recognize the functions of network layers and different protocols. 4. Discuss the important features of the Internet and Web."

**Computer Network and Internet**

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**Data Structure using C**

After completion of this course student should be able to- 1. Use and implement appropriate data structure for the required problems using a programming language such as C. 2. Understand various searching & sorting techniques 3. Implementing various data structures viz. Stacks, Queues 4. Implementation of Linked Lists and Trees."

**Elements of Statistics**

After completion of this course student should be able to- 1) Explain various term used in Statistics.

2) Describe the Measures of Central Tendency and Dispersion 3) Understand Analysis of Bivariate data(Correlation and Regression) 4) Elaborate Sampling Techniques and Time Series Analysis."""

**" Human Resource Management and Materials Management"**

After completion of this course student should be able to- 1. Understand Human Resource Planning Process.

2. Elaborate Performance Appraisal, Training and Development, Wage and salary Administration.

3. Explain functions of material management 4. Demonstrate 5 R in purchasing and Inventory control techniques."

**BCA semIV RDBMS**

After completion of this course student should be able to- 1. Describe the fundamental elements of Relational Database Management Systems. 2. Explain various commands in data languages with example. 3. Understand various subqueries & joins. 4. Apply the control statements and stored procedures.

**Software Engineering**

After completion of this course student should be able to- 1. Understand life cycle models, requirement elicitation techniques, understand the concept of analysis and design of software. 2. Develop SRS document. 3. Use of analysis and design tools for system development. 4. Apply software engineering concepts in software development to develop quality software.

**DOT NET Technology**

"After completion of this course student should be able to-1. Understand features of C# DOT NET

2. Implement various server controls for website development 3. Apply

validation and state management for interactive website development

4. Design and develop dynamic web application using ADO.Net"

**Entrepreneurship Development**

"After completion of this course student should be able to- 1. Define characteristics, function and types of entrepreneurs and know the role of Entrepreneurship in Economic Development.

2. Identify Business Opportunities and prepare business plan. 3. Know project finance agencies.

4. Understand New Opportunities and Challenges in digital entrepreneurship."

**PHP**

After completion of this course student should be able to-1. Understand the environment of PHP programming Language. 2. Develop web applications using PHP.

**BCA sem V Management Accounting**

After completion of this course student should be able to-1. Understand the knowledge about bank or business budgets.2.Ratio analysis of data

3.Improve decision making from data analysis

**E-Commerce**

After completion of this course student should be able to-1.Understand E-Com concept and electronic media.2.Understand Prepaid and post-paid Payment Sysytem.3.Understand the Different types of malware and their antivirus.

**Computer Network**

After completion of this course student should be able to-1.Understand the all concept of networking concept .2.Different types of LAN, MAN and WAN methodology.3.Different protocols used for data transfer.

**RDBMS with Oracle**

After completion of this course student should be able to-1.Understand the concept of database managements.2.Understand all commands that are used for data manipulation.3.Understand oracle concept for data manipulation.

**Visual Programming**

After completion of this course student should be able to-1.Understand the concept visual programming.2.The all console application programming completed in that paper.3.understand the ASP web application using MS-SQL database.

**BCA semVI Strategic Management**

After completion of this course student should be able to-1. Understand the Corporate-level Strategies and business level straregies.2.Understand how to formulate SM in business

**"Data Mining and Data Warehousing"**

After completion of this course student should be able to-1.Understand the concept Data mining and data warehousing. 2.understand how to big data manipulated and mannge using data mining tools.3.Understand different data mining algorithms for data abstraction.

**Linux Operating System**

After completion of this course student should be able to-1.Understand the concept of Linux operating system.2.Understand the Linux commands in detail.3.VI editor manipulation

**Java Programming**

	<p>After completion of this course student should be able to-1.Understand the concept of object oriented programming. 2.understand the applet lifecycle and their execution. 3.different methodologies from object oriented programming.</p>
Chemistry	<p style="text-align: center;"><b>B.Sc.PartII(CBCS)SemIII</b></p> <p><b>Paper No. DSC- C3 - Chemistry paper No. V(Physical Chemistry)</b></p> <ol style="list-style-type: none"> <li>1. Learning and understanding conductivity and transport number of the aqueous solutions with different applications.</li> <li>2. Knowledge about surface tension, viscosity and refractive index will be gained by the student</li> <li>3. Learning and understanding surface phenomena at heterogeneous surfaces</li> <li>4. Learning the various Nuclear phenomena and measurement of nuclear radiations</li> <li>5. Learning and understanding the knowledge about third order reaction and theories of reaction rates</li> </ol> <p style="text-align: center;"><b>B.Sc.PartII(CBCS)SemIII</b></p> <p><b>Paper No. DSC-C4- Chemistry paper No. VI (Industrial Chemistry)</b></p> <ol style="list-style-type: none"> <li>1. Learning and Understanding basic concepts and concentration terms</li> <li>2. Distinguish between classical and industrial chemistry</li> <li>3. Distinguish between unit operations and unit processes</li> <li>4. Knowledge of some unit operations understanding the process of corrosion and knowledge of prevention from corrosion</li> <li>5. Knowledge of Indian paper industry</li> <li>6. Knowledge about the chemical nature and cleansing action of soap</li> </ol> <p><b>B.Sc. Part III (CBCS) SEMESTER-V</b></p> <p><b>Paper No. DSE-E5, Chemistry Paper No. -IX (Inorganic Chemistry)</b></p> <ol style="list-style-type: none"> <li>1. Useful for the study of role of acids and bases in Chemistry. The study of non –aqueous solvents is important to learn all chemical properties of solutes and from the research point of view.</li> <li>2. Useful to understand geometry, stability and nature of bonding between metal ion and ligand in complexes.</li> <li>3. The topic deals with the synthesis and the applications of the semiconductors and Superconductors in electrical and electronic devices.</li> <li>4. The structure, method of preparation and the applications of organo metallic compound in various fields are explained.</li> <li>5. The classification, types, mechanism and applications of catalyst in industrial fields is explained.</li> </ol> <p><b>B.Sc. Part III (CBCS) SEMESTER-V</b></p> <p><b>Paper No. DSE-E6 Chemistry Paper No. X (Organic Chemistry)</b></p> <ol style="list-style-type: none"> <li>1. Understanding of energy associated with electromagnetic radiation and its use in analytical technique.</li> <li>2. Knowledge of chromophore, auxochrome and calculation of mix..</li> <li>3. Knowledge of vibrational transitions, regions of IR spectrum,</li> </ol>

functional group recognition.

4. Understanding of magnetic-non magnetic nuclei, shielding-desielding, chemical shift, splitting pattern
5. Knowledge of molecular ion, fragmentation pattern and different types of ions produced.
6. Student will predict the structure of organic compound with the help of provided spectral data.

### **B.Sc.-III (CBCS) SEMESTER V**

#### **Paper No. DSE- E7 Chemistry Paper No. XI (Physical Chemistry)**

1. Learning and understanding quantum Chemistry, Heisenberg's uncertainty principle, concept of energy operators (Hamiltonian), learning of Schrodinger wave equation. Physical interpretation of the  $\psi$  and  $\psi^2$ . Particle in a one dimensional box
2. Knowledge about spectroscopy, Electromagnetic spectrum, Energy level diagram, Study of rotational spectra of diatomic molecules: Rigid rotor model, Microwave oven, vibrational spectra of diatomic molecules, simple Harmonic oscillator model, Raman spectra: Concept of polarizability, pure rotational and pure Vibrational Raman spectra of
3. diatomic molecules, related knowledge will be gained by the students.
4. Learning and understanding photochemical laws, reactions and various photochemical phenomena.
5. Learning the various types of solutions, relations vapour pressure, temperature relations.
6. Learning and understanding the knowledge of emf measurements, types of electrodes, different types of cells, various applications of emf measurements.

### **B.Sc. Part III (CBCS) SEMESTER-V**

#### **Paper No. DSE-E8 Chemistry paper No. XII (Analytical Chemistry)**

1. Learning and understanding the techniques of gravimetric analysis.
2. Knowledge of instrumental analysis of alkali and alkaline earth elements.
3. Understanding, working and applications of optical methods as an analytical tool.
4. Understanding theory and applications of potentiometric titrations.
5. Understanding the basics of ion exchange and column adsorption chromatography, Quality control practices in analytical industries / laboratories.

### **B.Sc. Part III (CBCS) SEMESTER -VI**

#### **Paper No. DSE-F5, Chemistry Paper No. -XIII (Inorganic Chemistry)**

1. The topic focused on the mechanism of the reactions involved in inorganic complexes of transition metals. The students can understand the thermodynamic and kinetic aspects of metal complexes.
2. The generation of nuclear power with the help of nuclear reactions is highlighted. Role of radio isotopes in medicinal, industrial and Archaeology fields is explained.
3. The characteristics, properties and separation of lanthanides and Actinides are discussed. Synthesis and IUPAC Nomenclature of trans



uranic elements (TU) explained.

4. The techniques involve in ore dressing and extraction of cast iron from its ore are discussed.

5. Role of various metals and non metals in our health are discussed.

### **B.Sc. Part III (CBCS) SEMESTER-VI**

#### **Paper No. DSE-F6 Chemistry Paper No. XIV (Organic Chemistry)**

1. Knowledge of reagents used in organic transformations and various reactions used in organic synthesis.

2. Knowing basic terms used in retrosynthetic analysis, retrosynthesis of some organic compounds.

3. Student will learn addition reaction across  $>C=C<$  bond w.r.t. hydrohalogenation, hydration hydroxylation, ozonolysis and addition of halogen, halogen acid, hydrogen, water, etc. across  $-C\equiv C-$  bond.

4. Knowledge of terpenoids and alkaloids w.r.t. occurrence, isolation, characteristics and classification. Analytical and synthetic evidences of Citral and Nicotine.

5. Understanding classification of drugs, Qualities of ideal drug. Synthesis and uses of some representative drugs and Drug action of sulpha drugs.

### **B.Sc. III (CBCS) SEMESTER-VI**

#### **Paper No. DSE-F 7 Chemistry Paper No. XV (Physical Chemistry)**

1. Learning and understanding of phase rule, learning of One component, Two component and Three component systems phase diagrams with suitable examples.

2. Knowledge about basic concept of Thermodynamics, free energy, Gibbs-Helmholtz equation and its applications, problem related with it.

3. Learning and understanding Space lattice, lattice sites, Lattice planes, Unit cell. Laws of crystallography, Weiss indices and Miller indices, Cubic lattices and types of cubic lattice, planes or faces of a simple cubic system, Diffraction of X- rays, Derivation of Bragg's equation. Determination of crystal structure by Bragg's method. Crystal structure of NaCl and KCl on the basis of Bragg's equation.

4. Learning of kinetics, Simultaneous reactions such as i) opposing reaction ii) side reaction iii) consecutive reactions: iv) chain reaction v) explosive reaction

5. Learning and understanding the knowledge of distribution law, its modifications, applications of distribution laws, process of extraction, determination of solubility, distribution indicators, molecular weights.

### **B. Sc. Part III (CBCS) SEMESTER-VI Paper No. DSE-F8 Chemistry Paper No. XVI (Industrial Chemistry)**

1. Learning and understanding the whole process of manufacture of sugar and byproducts of sugar industry.

2. Learning and understanding of physico- chemical principles of production of ammonia, sulfuric acid, nitric acid and sodium carbonate along with its manufacturing plant.

3. Understanding and learning the classification, synthesis and applications of various polymers.

	<ol style="list-style-type: none"> <li>4. Understanding the petroleum Industry, fuels and need of use of ecofriendly fuels.</li> <li>5. Understanding and learning of nanotechnology including classification, optical properties, synthesis routes, characterization techniques and applications of nano-materials.</li> </ol>
Zoology	<p><b>F. Y. B.Sc. Zoology Learning outcomes : -</b></p> <ol style="list-style-type: none"> <li>1. The student will be able to understand, classify and identify the diversity of animals.</li> <li>2. The student will understand the importance of classification of animals and classify them effectively using the six levels of classification.</li> <li>3. The student knows his role in nature as a protector, preserver and promoter of life which he has achieved by learning, observing and understanding life.</li> </ol> <p><b>Paper Name: Animal diversity I and II</b></p> <p>After successfully completing this course, students will be able to:</p> <ol style="list-style-type: none"> <li>1: To understand the Animal diversity around us.</li> <li>2: To understand the underlying principles of classification of animals.</li> <li>3: To understand the terminology needed in classification.</li> <li>4: To understand the differences and similarities in the various aspects of classification.</li> <li>5: To classify invertebrates and to be able to understand the possible group of the invertebrate observed in nature.</li> </ol> <p><b>Paper Name: Animal Ecology</b></p> <p>After successfully completing this course, students will be able to:</p> <ol style="list-style-type: none"> <li>1: The learners will be able to identify and critically evaluate their own beliefs, values and actions in relation to professional and societal standards of ethics and its impact on ecosystem and biosphere due to the dynamics in population.</li> <li>2: To understand anticipate, analyse and evaluate natural resource issues and act on a lifestyle that conserves nature.</li> <li>3: The Learner understands and appreciates the diversity of ecosystems and applies beyond the syllabi to understand the local lifestyle and problems of the community.</li> <li>4: The learner will be able to link the intricacies of food chains, food webs</li> </ol>

and link it with human life for its betterment and for non-exploitation of the biotic and abiotic components.

5: The working in nature to save environment will help development of leadership skills to promote betterment of environment

**Paper Name: Cell Biology**

After successfully completing this course, students will be able to:

1: The learner will understand the importance of cell as a structural and functional unit of life.

2: The learner understands and compares between the prokaryotic and eukaryotic system and extrapolates the life to the aspect of development.

3: The dynamism of bio membranes indicates the dynamism of life. Its working mechanism and precision are responsible for our performance in life.

4: The cellular mechanisms and its functioning depends on endo-membranes and structures.

**Practical Zoology -I**

After successfully completing this course, students will be able to:

1: Recognize the live forms of vertebrates and invertebrates.

2: Analyse and describe zoological concepts, including morphology and anatomy.

3: Explain conservation and sustainable use of animals;

4: Explain and demonstrate the impact that animals have on human society

**Course Outcomes**

**S. Y. B.Sc. Zoology Learning outcomes : -**

**Paper Name: Animal Systematics and Diversity –III & IV**

After successfully completing this course, students will be able to:

1- Knowledge of classification of Non-chordates along with studies on various physiological functions and interactions of non-chordate organisms with type specimens.

2- Knowledge of classification of chordates along with studies on various physiological functions and comparative anatomy of organs of chordate with example.

**Paper Name: Applied Zoology I & II**

After successfully completing this course, students will be able to:

- 1-Understands processes of fisheries, sericulture, along with crop pest management techniques
- 2-Students gain knowledge about various disease related vectors and their impact on human
- 3-Understands concepts of apiculture, poultry, dairy along with tissue and cell culture techniques

**Practical course**

After successfully completing this course, students will be able to Paper – III – Practical

- 1:First-hand knowledge about identification of non-chordate and chordate specimens (fresh and preserved) along with larval forms and study of endoskeleton of vertebrates
- 2: Understand the nature and basic concepts of cell biology, genetics, taxonomy, physiology, ecology and applied Zoology
- 3: Analyse the relationships among animals, plants and microbes

**T. Y. B. Sc. Zoology:**

**Paper Name Animal Systematics and Diversity V**

After successfully completing this course, students will be able to:

- 1- Studies on various physiological functions and interactions of chordate organisms with examples.
- 2- Imparts conceptual knowledge of vertebrate adaptations in relation to their environment.
- 3- Understanding of general taxonomic rules on animal classification
- 4-Knowledge of classification of Non-chordates along with studies on various physiological functions and interactions of non-chordate organisms with examples

**Paper Name :Mammalian Histology**

After successfully completing this course, students will be able to:

- 1: Define the basic terms in histology.
- 2: List the various types of tissues.
- 3: Identify the histological peculiarities in various organs.
- 4: Explain the location, structure and functions of various organs.

**Paper Name: Biological Chemistry**

After successfully completing this course, students will be able to:

- 1: Define the basic terms in biochemistry.
- 2: Explain the structure, functions and reactions of the various biomolecules.
- 3: Give examples of each group type of biomolecules.
- 4: Correlate the changes in the levels of these biomolecules with the diseases in human

**Paper Name: Environmental Biology and Toxicology**

After successfully completing this course, students will be able to:

- 1: An overview of evolutionary ecology and environmental concepts.
- 2: Description of nature of ecosystem, production, food webs, energy flow, biogeochemical cycles, resilience of ecosystem and ecosystem management.
- 3: Understanding the biosphere, biomes and impact of climate on biomes.
- 4: Description of biodiversity assessment, conservation and management, Sustainable 6 development, natural resource management in changing environment.

**Paper Name: Parasitology**

After successfully completing this course, students will be able to:

- 1: Define the basic terms in parasitology.
- 2: List common ectoparasites and endoparasites.
- 3: Explain animal associations and their types.
- 4: Discuss the life cycle and importance of major parasites.
- 5: Illustrate transmission routes of animal and zoonotic parasites .
- 6: Classify parasites
- 7: Justify the control measures of arthropod vectors.
- 8: Convince the importance of hygiene with respect to epidemic diseases.

**Paper Name: Cell Biology**

After successfully completing this course, students will be able to

- 1: Define the terms in cell biology.
- 2: Describe the composition, structure and functions of the plasma membrane.

3: Describe the three primary components of the cell's cytoskeleton and how they affect cell shape, function, and movement.

4: Differentiate between prokaryotes and eukaryotes.

**Paper Name: Biological Techniques**

After successfully completing this course, students will be able to:

1: Define the basic terms solution preparation.

2: List the separation techniques.

3: Explain the principle of separation techniques.

4: Explain the procedure of preparing permanent histological slides.

5: Illustrate the working of microscopes.

**Paper Name: Mammalian Physiology and Endocrinology**

After successfully completing this course, students will be able to:

1: Define the basic terms in physiology.

2: Explain the physiological processes in mammals.

3: Explain the anatomy of various systems.

4: Illustrate the reproductive cycles with hormonal control.

5: Diagrammatically represent the working of kidney.

6: Justify the endocrine disorders. ZO 343 Genetics and Molecular Biology

**Paper Name: Genetics and Molecular Biology**

After successfully completing this course, students will be able to:

1: Define the basic terms in genetics.

2: Discuss the linkage groups and gene frequency.

3: Explain the concept of mutation.

4: Explain DNA structure.

5: Paraphrase the Central dogma of molecular biology.

6: Illustrate the mechanism of replication, transcription and translation.

**Paper Name: General Embryology**

After successfully completing this course, students will be able to:

1: Identify the developmental stages

2: Describe the key events in early and systematic embryological development.

3: Explain the theories of preformation, and concepts like growth, differentiation and reproduction.

	<p>4: Explain the principles and process of fertilization and cleavage.</p> <p>5: Elucidation of early embryonic development of invertebrates and vertebrates.</p> <p><b>Paper Name: Medical Entomology</b></p> <p>After successfully completing this course, students will be able to:</p> <ol style="list-style-type: none"> <li>1: Outline the branches of entomology.</li> <li>2: Define medical entomology.</li> <li>3: Explain the social organization of insects with examples.</li> <li>4: Illustrate the role of household insects in relation to human health.</li> <li>5: Classify major medically important insects.</li> </ol> <p><b>Practical Paper I, II, III</b></p> <p>After successfully completing this course,</p> <p>Students will be able to:</p> <ol style="list-style-type: none"> <li>1-First-hand knowledge about identification of non-chordate and chordate specimens (fresh and preserved) along with larval forms and study of endoskeleton of vertebrates.</li> <li>2-Students are able to handle microscopes, work with camera and micrometers.</li> <li>3- Identification of zooplanktons and phytoplankton's.</li> <li>4- Gain skill about histological slide preparation, staining and mounting.</li> <li>5- Students gain skill about determination of pH and quantitative analysis of blood cells.</li> <li>6- Students are able to parasites from rectal and faecal contents of animals.</li> <li>7- Students are able to collect parasite and pest specimen.</li> </ol>
Computer Science	<p><b>B.Sc. Computer Science (CBCS) (Optional) Part-I SEM-I &amp; SEM –II</b></p> <p><b>Course Code: DSC-11A</b></p> <p><b>Problem Solving Using Computers</b></p> <p>After completion of this course students will be able to –</p> <ol style="list-style-type: none"> <li>1. Understand basic concepts of computers.</li> <li>2. Understand operating environment.</li> <li>3. Demonstrate the use of Linux Operating system commands</li> <li>4. Understands the control structures and arrays.</li> </ol>

**Course Code: DSC-12A**

**Database Management System and Relational Database Management System**

**Course Outcomes:**

After completion of this course students will be able to -

1. Describe the basic concepts of DBMS and various databases used in real applications
2. Demonstrate the principles behind systematic database design Approaches.
3. Design the data models such as Hierarchical, Network, Relational.
4. Learn MySQL for database creation and handling transactions.
5. Use of Integrity Constraints.

**Course Code: DSC-11B**

**Programming Skills Using ‘C’**

**Course Outcomes:**

After Completion of this course the student will be able to –

1. Able to implement the algorithms and draw flowcharts for solving Mathematical problem.
2. Ability to design and develop Computer programs, analyses, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.
3. Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures and file Handling.
4. Develop confidence for self-education and ability for life-long learning needed for computer language.

**Course Code: DSC-12B**

**Relational Database Management System**

**Course Outcomes:**

After completion of this course students will be able to -

1. Define the basic concepts of relational data models.
2. Use of SQL-DDL,DML,DQL.
3. Design the database structure by applying the concepts of Entity relational model and Normalization.
4. Learn MySQL for database creation and handling transactions.

**B.Sc. Computer Science (CBCS) (Optional) Part-II SEM-III & SEM – IV**

**Course Code: DSC-11C**

**PHP and MySQL**

**Course Outcomes:**



After completion of this course students will be able to -

1. To understand basic concept of PHP
2. To learn how to developing applications in PHP and MySQL.
3. To learn and develop various technology applications that definitely meets the current industry needs.

**Course Code: DSC-12C**

**Object Oriented Programming Using C++**

**Course Outcomes:**

After completion of this course students will be able to -

Perform object oriented programming to develop solutions to problems demonstrating usage of control structure, modularity, I/O and other standard language constructs.

1. To understand how C++ improves C with object oriented features
2. To learn syntax & semantics of C++ programming language.
3. To learn how to write inline functions for efficiency and performance.
4. To learn how to overload functions and operators in C++.
5. To learn how to design C++ classes for code reuse.
6. To learn how to inheritance promote code reuse in C++.
7. To learn how to inheritance and virtual functions implement dynamic binding with polymorphism.

**Course Code: DSC-11D**

**Cyber Security Essentials –I**

**Course Outcomes:**

After completion of this course students will be able to -

1. To understand concept of information security management.
2. Learn different access controls methods.
3. Understand wireless network security.
4. Learn cyber security laws and importance of security audit.

**Course Code: DSC-12D**

**Data Structure Using C++**

**Course Outcomes:**

After completion of this course students will be able to -

1. To understand the basic concepts such as Abstract Data Types, Linear and non Linear Data Structures.
2. Ability to choose appropriate data structures to represent data items in real world problems.

3. Ability to design programs using a variety of data structures such as array, stacks, queues linked list.
4. Ability to analyze the time and space complexities of algorithms.
5. Able to analyze and implement various kinds of searching and sorting techniques.

**B.Sc. Computer Science (CBCS) (Optional) Part-III SEM-V& SEM – VI**

**Course Code: DSE-21E**

**Core Java:**

**Objective:**

To teach the learner how to use Object oriented paradigm to develop code and understand the concepts of Core Java and to cover-up with the pre-requisites of Core java.

**Course Outcomes:**

After completion of this course students will be able to -

1. Object oriented programming concepts using JAVA
2. Knowledge of input, its processing and getting suitable output.
3. Understand, design, implement and evaluate classes and applets.
4. Understanding concept of Multiprogramming and Exception Handling

**Course Code: DSE-22E**

**C# Programming:**

**Course Outcomes:**

After completion of this course students will be able to -

1. Covers all practical aspects of C#.NET framework.
2. Goal is to introduce the students to the basics of OOPs and Windows application program.

**Course Code: DSE-23E**

**Linux Part- I**

**Course Outcomes:**

After completion of this course students will be able to -

1. Upon completion of this course, students should have a good working knowledge of Linux.
2. Allowing them to easily use any Linux distribution.
3. This course shall help student to learn advanced subjects in

computer science practically.

**Course Code: DSE-24E**

**Python Part-I:**

**Objective:**

Master the fundamentals of writing Python scripts

**Course Outcomes:**

After completion of this course students will be able to -

1. To understand why Python is a useful scripting language for developers.
2. To learn how to write loops and decision statements in Python.
3. To learn how to use lists, tuples and dictionaries in Python programs.

**Course Code: DSE-21F**

**Advance Java:**

**Objective:**

Explore advanced topics of Java programming for solving problems.

**Course Outcomes:**

After completion of this course students will be able to -

4. The student will be able to develop distributed business applications, develop web pages using advanced server-side programming through servlet and Java server pages.
5. Demonstrate approaches for performance and effective coding.
6. To learn database programming using Java
7. To study web development concepts using Servlet and JSP

**Course Code: DSE-22F**

**ASP.NET**

**Course Outcomes:**

After completion of this course students will be able to -

1. Covers all practical aspects of multi-tier web based application development using the .NET framework.
2. Goal is to introduce the students to the basics of distributed web based application development.

	<p><b>Course Code: DSE-23F</b></p> <p><b>Linux Part- II</b></p> <p><b>Course Outcomes:</b></p> <p>After completion of this course students will be able to -</p> <ol style="list-style-type: none"> <li>1. This course covers design principles of Linux OS memory management.</li> <li>2. Structure of File system and virtual file system is also collaborated.</li> <li>3. This course contains details of shell programming and introduces System administration.</li> </ol> <p><b>Course Code: DSE-24F</b></p> <p><b>Python Part-II:</b></p> <p><b>Course Outcomes:</b></p> <p>After completion of this course students will be able to -</p> <ol style="list-style-type: none"> <li>1. To learn how to write functions and pass arguments in Python.</li> <li>2. To learn how to build and package Python modules for reusability</li> <li>3. To learn how to use exception handling in python applications for error handling.</li> </ol>
Physics	<p><b>B.Sc. I</b></p> <p><b>Name of Papers:</b></p> <p><b>Mechanics:</b>The students would learn about the behavior of physical bodies it provides the basic concepts related to the motion of all the objects around us in our daily life. The course builds a foundation of various applied field in science and technology; especially in the field of mechanical engineering. The course comprises of the study vectors, laws of motion, momentum, energy, rotational motion, gravitation, fluids, elasticity and special relativity.</p> <p><b>Electricity and Magnetism:</b>It gives an opportunity for the students to learn about one of the fundamental interactions of electricity and magnetism, both as separate phenomena and as a singular electromagnetic force. The course contains vector analysis, electrostatics, magnetism, electromagnetic induction and Maxwell's equations. The course is very useful for the students in almost every branch of science and engineering.</p> <p><b>B.Sc. II</b></p> <p><b>Thermal Physics and Statistical Mechanics:</b>The course makes the students able to understand the basic physics of heat and temperature and their relation with energy, work, radiation and matter. The students also learn how laws of thermodynamics are used in a heat engine to transform heat into work. The course contains the study of laws of thermodynamics,</p>

	<p>thermodynamic description of systems, thermodynamic potentials, kinetic theory of gases, theory of radiation and statistical mechanics.</p> <p><b>Wave and Optics:</b>The course comprises of the study of superposition of harmonic oscillations, waves motion (general), oscillators, sound, wave optics, interference, diffraction, polarization. The course is important for the students to make their career in various branches of science and engineering, especially in the field of photonic engineering.</p>
Mathematics	<p><b>B.Sc. I</b></p> <p><b>Differential calculus</b></p> <ol style="list-style-type: none"> <li>1. De-Moivre's Theorem</li> <li>2. Application of De-Moivre's Theorem</li> <li>3. Relation Between hyperbolic &amp; circular function</li> <li>4. Successive Differentiation</li> <li>5. Leibnitz's Theorem</li> </ol> <p><b>Calculus</b></p> <ol style="list-style-type: none"> <li>1. Rolle's Theorem</li> <li>2. Lagrange's Mean value Theorem</li> <li>3. Cauchy's Mean value theorem</li> <li>4. Indeterminate forms</li> <li>5. Theorems on Limits</li> </ol> <p><b>Differential Equation</b></p> <ol style="list-style-type: none"> <li>1. Exact Differential Equation</li> <li>2. Integrating Factor</li> <li>3. Linear Differential Equation with constant coefficients</li> <li>4. Legendre's Linear Equation</li> <li>5. General Method of Particular Integral</li> </ol> <p><b>Second Order Linear Differential Equation &amp; Simultaneous Differential Equation.</b></p> <ol style="list-style-type: none"> <li>1. Second order Liner Differential Equation</li> <li>2. Method of Variation of Parameters</li> <li>3. Method of solving total differential equation</li> <li>4. Partial differential Equation</li> <li>5. Charpit's method</li> </ol> <p><b>B.Sc. II</b></p> <p><b>Real Analysis I</b></p> <ol style="list-style-type: none"> <li>1. Set And Function</li> <li>2. Mathematical Induction</li> <li>3. Countable Set</li> <li>4. Real Numbers</li> </ol> <p><b>Algebra I</b></p> <ol style="list-style-type: none"> <li>1. Concept of Matrices</li> <li>2. Relation, Equivalence and partial order Relation</li> <li>3. Groups</li> <li>4. Cyclic Group and Coset</li> </ol> <p><b>Real Analysis II</b></p>

	<ol style="list-style-type: none"> <li>1. Sequence of Real Numbers</li> <li>2. Monotone Sequence</li> <li>3. Infinite Series</li> <li>4. Positive Term Series</li> <li>5. Alternativeseries</li> </ol> <p><b>Algebra II</b></p> <ol style="list-style-type: none"> <li>1. Euler's Theorem</li> <li>2. Fermat's Theorem</li> <li>3. Normal Subgroup</li> <li>4. Permutation Group</li> </ol>
Botany	<p><b>B.Sc. I</b></p> <p><b>Paper I: Diversity in non-vascular plants</b>  Basic concept and diversity of non-vascular plants with respect to habit and form, nutrition and ecological role  General characters classification and importance of algae, fungi and bryophytes  Study of life cycle of representatives of algae, fungi and bryophytes.</p> <p><b>Paper II: Plant Biochemistry, physiology and ecology</b>  Cell as a biochemical entity  Structure and importance of water molecule  pH, buffer and ATP  chemistry of enzymes  ecological factors  plant water relations</p> <p><b>Paper III: Diversity in vascular plants</b>  Basic concept and diversity of vascular plants  general characters, classification, economic importance of vascular plants  types of tissues and vascular bundles  importance and functions of taxonomy</p> <p><b>Paper IV: Cytology, genetics and utilization of plants</b>  Types of cells and cell division.  Mendelian inheritance  Gene interactions  Utilization of plants – cereals, legumes, oil crops, ornamental plants, plant perfume and cosmetics</p> <p><b>B.Sc. II</b></p> <p><b>Paper VI DSC-C14: Plant physiology</b>  Plant water relations  Macro and micro nutrients with their importance and deficiency disorders.  Photosynthesis – pigments, light and dark reactions  Growth and growth regulators  Photoperiodism and vernalization</p>
Statistics	<p><b>B.Sc. I</b></p> <p><b>Descriptive statistics and probability theory</b>  Students learn to design data collection plans and basic tools of descriptive statistics.</p> <p><b>Regression analysis and discretedistributions</b></p>

Student learn to i) identify the relationship between two variables using scatter plot ii) Interpret a sample correlation.

**Continuous probability distribution**

Students learn different types of continuous distribution with their properties and applications.

**B.Sc. II**

**Sampling theory**

Understand the concept of sampling distribution of a statistic and its properties, difference between parameter and statistic.

**Statistical inference-I**

Statistical quality control

"Students are able to describe the properties of unbiasedness. They are also learning to identify the null hypothesis, alternative hypothesis and test statistic.

Students are able to i) explain the different meanings of the quality concept and its influence.

**Statistical inference-II**

Students learn to i) identify situations where one-way ANOVA is appropriate ii) identify the degrees of freedom associated with each sum of squares, iii) Interpret an ANOVA table.

**Operations research**

Formulate and solve LPP, Assignment problems, Transportation problems. ii) solve the zero-sum-two person -game.