

**Terna Public Charitable Trust's,
Terna Mahavidyalaya (Arts, Science & Commerce), Osmanabad.**

INTERNAL QUALITY ASSURANCE CELL



PROGRAMME OUTCOMES (POs)

2022-23

INTERNAL QUALITY ASSURANCE CELL

PROGRAMME OUTCOMES

INDEX

Sr. No.	PARTICULARS
1.	Bachelor of Arts
2.	B. Sc. (Computer Science)
3.	Bachelor of Computer Application
4.	M. Sc. (Computer Science)

Programme Outcomes – B. A.

PO1: Social responsibility and awareness: Students acquire knowledge and can apply in social sciences, literature and humanities which make them sensitive and help to grow ability as responsible citizens. It also creates social consciousness.

PO2: Inculcation of human values: Students can apply knowledge with human values framing the base to deal with various problems in life with courage and humanity.

PO3: Familiarize learners with social and economic issues: Learners get familiarize with social, economic, historical, geographical, political, ideological and philosophical tradition and thinking.

PO4: Communication and linguistic skills: Students acquire good communication and linguistic skills which is the need of modern time and essential for campus drives.

PO5: Competency: It empowers graduates to appear for competitive examinations and higher studies.

PO6: Creativity: Students will acquire the sense of social service and creative ability.

Programme Outcomes - B. Sc. Computer Science

PO1: To understand and apply the theory of computer science and software development fundamentals to produce computing based solutions.

PO2: To provide a strong foundation in computer science and the ability to creatively apply computer and related technologies.

PO3: To formulate and analyze complex scientific problems.

PO4: A deep understanding and applying the principles of professional, ethical, legal, security, and social issues and responsibilities.

PO5: To enable learners for a career in an information technology oriented business or industry.

PO6: To comprehend the employment skills.

PO7: Understand modern notions in data analysis-oriented computing.

Programme Outcomes – BCA (Management)

PO1: Apply knowledge: Students can apply knowledge of computing fundamentals, mathematics and domain knowledge appropriate for the conceptualization of computing models.

PO2: Ethics & Management: Students can use ethical practices and cyber regulations in computing and managing software projects in diverse environments.

PO3: Lifelong learning: Learners recognize the need for and have the preparation and ability to engage themselves in independent and life-long learning in broad context of technological change.

PO4: Usage of modern tools: Learners recognize the need and adopt appropriate tools and techniques for modern computing practices.

PO5: Critical thinking & problem solving approach: Learners can identify, analyze, formulate, design and develop the real world requirements by critical thinking for complex problems in IT enabled services.

Programme Outcomes - M. Sc. Computer Science

The overall objective of this course is to cater the need of computational field. The content of this course is according to the current trends of research in Computer Science and requirements of industry expectations. Some courses of this program are exclusively designed towards development of analytical, presentation and personality development skills among the students, through which the students get prepared and trend for building their carrier in computer science and its related applied technology, research and development. In line with Outcome based education the program specific outcomes for M.Sc Computer Science programs are as follows:

PO 1: To be fundamentally strong at core subjects of computer science.

PO 2: An ability to apply programming and computational skills for industrial solutions.

PO 3: Realizes the importance of lifelong learning and continuous professional development.

PO 4: Broad understanding of latest technological trends.

PO 5: An ability to identify opportunities for establishing an enterprise for immediate Employment.

PO 6: Ability to understand and apply fundamental research concepts.

PO 7: An ability to use efficient soft skills for professional development.

PO 8: To be rational in professional ethics and attitude.

PO 9: Able to use current tools and technologies to cater multidisciplinary needs. PO 10: An ability to indulge in lifelong learning for professional development.

PO 11: Ability to sustain in the areas of Data Science and Analytics.

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INTERNAL QUALITY ASSURANCE CELL



COURSE OUTCOMES (Cos)

2022-23

INTERNAL QUALITY ASSURANCE CELL

COURSE OUTCOMES

INDEX

Sr. No.	PARTICULARS
1.	COs : Marathi
2.	COs : Hindi
3.	COs : English
4.	COs : Sociology
5.	COs : Economics
6.	COs : Political Science
7.	COs : History
8.	COs : B.Sc. (Computer Science)
9.	COs: Bachelor of Computer Application
10.	COs : M.Sc. (Computer Science)

Course Outcomes

Cos : Marathi

B. A. Marathi F.Y B.A Marathi Paper I & II (S.L) Bhatiya Bhasha : Marathi (Mayboli)

- 1: To introduce learners to the literature of the writers from medieval and modern time.
- 2: To make learners aware of social, political, cultural and economic conditions of the times.
- 3: To introduce the style of prose, fiction and poetry.

F. Y. B. A Marathi Paper I (Opt.) Nivdak Abhang (Abhang Avishakar)

- 1: To introduce students to Marathi Abhang.
- 2: To understand Marathi Abhang & connect it to real life.
- 3: To understand various ideologies, movements in the history of Marathi Abhang.

F. Y. B. A Marathi Paper II (Opt) Nivdak Katha (Katharth)

- 1: To introduce students to Marathi story literature.
- 2: To enhance learner's interest in Marathi stories & connect it to real life.
- 3: To understand ideologies and movements in the history of Marathi language & literature.

F.Y. B. A. Marathi Paper III (Opt.) Nivdak Lalit Gadya (Lalit Gandha)

- 1: To introduce students to Marathi story literature.
- 2: To enhance learner's interest in Marathi stories & connect it to real life.
- 3: To understand ideologies and movements in the history of Marathi language & literature.
- 4 : To acquire and understand realistic view of life.

F.Y. B.A. Marathi Paper IV (Opt) Nivdak Aadhunik Kavita

- 1: To introduce students to Marathi Poetry.
- 2: To acquire realistic view in Marathi literature.
- 3: To understand Marathi poetry & connect it to real life.

B.A. Marathi SL Paper III & IV (Gadya Padya Upyojit Marathi)

- 1: To apply literary syntax of Marathi language.
- 2: To create awareness about meaning and history of folk culture.
- 3: To introduce different trends in literature.
- 4: To understand of literary analysis.

S.Y. B.A. Marathi Paper V (Opt.) Aadhunik Marathi Vangmayacha Itihas. (1800-1920)

- 1: To study literature history after 1800.
- 2: To relate social, cultural, social movement ideology during 1800-1920 on literature.
- 3: To understand the background, inspiration, importance of authors & their literary work in 1800-1920.

S.Y.B.A, Marathi Paper Paper VI, VIII (Druk Shravya Madhyamansathi lekhan kaushalya)

- 1: To introduce functioning and structure of radio language.
- 2: To acquire skills of radio anchor.
- 3: To understand production of different programmes on radio.

T.Y. Marathi Paper VII Aadhunik Marathi Vangmayacha Itihas.(1800-1920)

- 1: To introduce learners to theatre culture, tradition, development and emergence of Marathi theatre.
- 2: To familiarize with Annasaheb kirloskar and his ntribution.
- 3: To study translated literature & different types of literature such as periodic, story, poetry, novel, biography and autobiography.

T.Y.B.A. Marathi Paper IX & XIII (Bhartiy aani pashchimatya sahityavichar)

- 1: To introduce students with basic scientific - Indian and foreign literature.
- 2: To understand types of literature.
- 3: To develop clear concepts in literature.

T.Y. B.A, Marathi Paper, X, XIV (Bhasha Vidnyan: Vyakran v Nibandha)

- 1: To create awareness about the structural patterns of sounds in Marathi.
- 2: To inculcate ideas about history and development of Marathi language and its spoken forms.
- 3: To understand Marathi grammar.
- 4: To enhance pronunciation skill.
- 4: To understand Marathi grammar in various forms - word formation, suffix & prefixes.

T.Y. B.A. Marathi Paper XI (MAIN) Madhyayugin Marathi vangmayacha itihash. (Start to 1600)

- 1: To understand different ages of Marathi.
- 2: To understand Mahanubhav Sect and their contribution in Marathi literature.
- 3: Specialty of ideology, philosophy of mahanubhav sect & their literary work.

T.Y. B.A. Marathi Paper XI (MAIN) Madhyayugin Marathi vangmayachaitihash. (1601 - 1818)

- 1: To understand Panditi sahitya and their inspiration, specialty and structure.
- 2: To know pandit kavi and his literature.
- 3: To understand contribution of Shahiri literature, inspiration, structure and specialty.

T.Y. B.A. Marathi Paper XII & XVI (Main Project)

- 1: Convey message or motto with a story.
- 2: To think independently.
- 3: To enhance thinking ability and create interest in Marathi language.

Course Outcomes

Hindi

बी.ए. I सामान्य हिंदी (S.L. I & II)

- 1: साहित्य संवेदनाओं का विकास कराना।
- 2: हिंदी कहानी साहित्य का सामान्य परिचय कराना।
- 3: हिंदी कहानीकार तथा उनकी कहानी विशेषताओं का परिचय कराना।
- 4: हिंदी कविता का सामान्य परिचय कराना।
- 5: कविता का रसास्वादन एवं सृजन क्षमता का विकास कराना।
- 6 : भाषा कौशल का विकास कराना।

प्रश्नपत्र 1- हिंदी साहित्य का इतिहास (आदि तथा मध्यकाल) भाग-1

- 1: साहित्य इतिहास का परिचय कराना।
- 2: साहित्य इतिहास लेखन तथा उसकी परम्परा का परिचय कराना।
- 3: साहित्य और युगबोध के संबंधों का अध्ययन कराना।
- 4: साहित्य अध्ययन की ऐतिहासिक दृष्टि का विकास कराना।

प्रश्नपत्र 2 - आधुनिक कविता

- 1: साहित्य संवेदनाओं का विकास कराना।
- 2 : हिंदी कविता का सामान्य परिचय कराना।
- 3: कविता का रसास्वादन एवं सृजन क्षमता का विकास कराना।
- 4: भाषा कौशल का विकास कराना।

प्रश्नपत्र 3 - कथा साहित्य - II

- 1: साहित्य संवेदनाओं का विकास कराना।
- 2: हिंदी कहानी का सामान्य परिचय कराना।
- 3: कहानीकार तथा उनकी कहानियों की विशेषताओं का परिचय कराना।
- 4: कहानी का रसास्वादन एवं सृजन क्षमता का विकास कराना।
- 5: भाषा कौशल का विकास कराना।

प्रश्नपत्र 4 - मध्ययुगीन काव्य IV

- 1: साहित्य संवेदनाओं का विकास कराना।
- 2: हिंदी मध्ययुगीन कविता का सामान्य परिचय कराना।
- 3: कविता का रसास्वादन एवं सृजन क्षमता का विकास कराना।
- 4: भाषा कौशल का विकास कराना।

बी.ए. सामान्य हिंदी (SL-III & IV)

- 1: साहित्य आस्वादन अभिरूचि का परिसंस्कार करना।
- 2: जीवन मूल्यों के प्रति आस्था निर्माण करना।
- 3: हिंदी के आधुनिक गद्य साहित्य की प्रतिनिधिक रचनाओम का परिचय करना ।
- 4: अत्याधुनिक इलेक्ट्रॉनिक माध्यमों का परिचय करना ।
- 5: व्यावहारिक, प्रयोजनमूलक तथा संप्रेषणमूलक व्यावसायिक हिंदी भाषा से विद्यार्थी परिचित हो और रोजमर्रा की जिंदगी में अपनी मांगों को पूरा करने में सक्षमता पाए यह अपेक्षा भी इस पाठ्यक्रम की रही है।
- 6: पत्रलेखन के सारे प्रकार, आवेदन पत्र, बैंकिंग तथा सरकारी कार्यालयों की प्रयोजनमूलक भाषा से विद्यार्थी परिचित होता है।

प्रश्नपत्र 5- कथेत्तर गद्य साहित्य

- 1: कथेत्तर गद्य साहित्य पेपर रखने का उद्देश्य यहीं है कि हिंदी के विद्यार्थी हिंदी साहित्य के कथेत्तर विधाओं से परिचित हो।
- 2: 'गद्य गौरव और गद्य प्रभा किताब के माध्यम से विद्यार्थी रेखाचित्र, निबंध, संस्मरण, जीवनीपरख लेख, व्यंग्य, आत्मकथा अंश, यात्रा वृतांत, लेख आदि विधाओं से भलीभांति परिचित हो।
- 3: साहित्य के विविध विधाओं के आस्वादन का आनंद लेने की आदत और अभिरूचि विकास भी विद्यार्थियों में करना।

प्रश्नपत्र 6- प्रयोजनमूलक हिंदी

- 1: हिंदी भाषा के प्रयोजनमूलक रूप का परिचय करना ।
- 2 हिंदी भाषा की व्यावहारिकता पर प्रकाश डालना।
- 3: भारत देश की राष्ट्रभाषा होने के नाते हिंदी भाषा की एहमीयत का मूल्यांकन करना।
- 4: हिंदी के राष्ट्रीय और आंतर्राष्ट्रीय स्वरूप का मूल्यांकन करना।

प्रश्नपत्र 7 आधुनिक हिंदी कविता

- 1: हिंदी साहित्य के पद्य (कविता) के उद्भव और विकास पर प्रकाश डालना, हिंदी कविता के प्रति विद्यार्थियों की अभिरूचि की वृद्धि करना, मानवीय भाव-भावनाएं और संवेदनाओं का विकास करना इस पाठ्यक्रम का उद्देश्य है।
- 2: नागार्जुन द्वारा लिखित खंडकाव्य भूमिजा रामायण के कथा प्रसंग पर प्रकाश डालता है। सीता का ऐतिहासिक मूल्यांकन करते हुए एक नारी के नाते उसकी कौनसी शिकायतें राजा, पति, पुरुष और राज्य के प्रति रही है इसका लंबा मूल्यांकन करना। अर्थात् नारी जीवन के संघर्ष और विद्रोह का परिचय इस खंडकाव्य का उद्देश्य है।
- 3: विद्यार्थी 'रामायण', 'रामचरितमानस तथा अन्य रामायण कथा पर केंद्रित रचनाओं से एक अलग रचना से परिचित हो गए हैं, जिसमें सीता का एक स्त्री होने के नाते पुरुषों के प्रति विद्रोह है इसका परिचय करवाना।

प्रश्नपत्र 8 प्रयोजनमूलक हिंदी

- 1: हिंदी भाषा के विविध रूपों का परिचय करना।
- 2: राजभाषा हिंदी के विविध रूपों का परिचय करना ।
- 3: प्रयोजनमूलक भाषा तथा अनुवाद की भूमिका का परिचय करना ।
- 4: हिंदी भाषा के प्रयोजनमूलक और व्यावहारिक रूप का परिचय करना । 5: भारत देश की राष्ट्रभाषा होने के नाते हिंदी भाषा की एहमीयत का मूल्यांकन करना ।

प्रश्नपत्र 9 - प्रादेशिक साहित्य

- 1: साहित्य आस्वादन और अभिरूचि का परिष्कार करना।
- 2: जीवन मूल्यों के प्रति आस्था निर्माण करना।
- 3: भारतीय साहित्य का अध्ययन करना।

प्रश्नपत्र 10- आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास

- 1: हिंदी साहित्य के इतिहास तथा आरंभिक काल का परिचय करना।
- 2: हिंदी साहित्य के लेखन स्रोतों एवं परंपराओं पर प्रकाश डालना।
- 3: हिंदी साहित्य आदिकाल, भक्तिकाल और रीतिकाल का परिचय देना

प्रश्नपत्र 11- साहित्यशास्त्र

- 1: साहित्य चिंतन परंपरा का अध्ययन करना।
- 2: साहित्यालोचन क्षमता का परिचय करना ।
- 3: साहित्य सृजन के संस्कार करना ।
- 4: साहित्य एक प्रकार से शास्त्र है, उसका पढ़ना, चिंतन, आकलन, मूल्यांकन और सृजन करना एक प्रकार की शास्त्रीय तकनीक है। इसी तकनीक का विकास करना इस पाठ्यक्रम का उद्देश्य है।
- 7: साहित्य का मूल्यांकन करने का नजरिया भी विकसित करना। साहित्य के कलापक्षीय अंगों पर प्रकाश डालने की दृष्टि का विकास करना ।

प्रश्नपत्र 12 व 16 प्रकल्प कार्य

- 1: पठन-पाठन और लेखन कौशलों का विकास करना।
- 2: आलोचनात्मक क्षमता का विकास करना ।
- 3: अनुसंधात्मक दृष्टि का विकास करना।

प्रश्नपत्र 13- मध्यकालीन काव्य

- 1: भारतीय भक्ति आंदोलन का अध्ययन करना।
- 2 : रीतिकालीन संवेदनाओं का अध्ययन करना।
- 3: कविताओं के माध्यम से मध्यकालीन सांस्कृतिक संवेदना का अध्ययन करना।

4: भक्ति तथा रीतिकालीन पृष्ठभूमि और प्रवृत्तियों से विद्यार्थियों को परिचित करना।

प्रश्नपत्र 14 - आधुनिक हिंदी साहित्य का इतिहास

1: हिंदी साहित्य के आधुनिक काल का परिचय करना।

2 : हिंदी साहित्य के आधुनिक काल की पृष्ठभूमि और प्रवृत्तियों पर प्रकाश डालना।

3: हिंदी साहित्य के आधुनिक काल में कविता और गद्य लेखन के विविध प्रकारों का आकलन और मूल्यांकन।

प्रश्नपत्र 15- साहित्यशास्त्र

1: साहित्य चिंतन परंपरा का अध्ययन करना।

2 : साहित्यालोचन क्षमता का परिचय करना।

3: साहित्य सृजन के संस्कार करना।

4: साहित्य के रस, अलंकार, छंद, विविध विधाओं का स्वरूप, आलोचना आदि अंगों का परिचय विद्यार्थियों को करवाना।

Course Outcomes

English

B. A. English Compulsory Paper I & II: A Course in Communicative English

- 1: To make the students aware of basic language skills.
- 2 : To train them to read and write well in English.
- 3 : To make the students competent speakers and listeners of English.
- 4 : To enhance the confidence level of the students for application of English.
- 5 : To develop word power of the students.

B. A. English Optional Paper I & II: Forms of Literature

- 1 : To make the students aware of basic concepts of literature.
- 2 : To make them aware of forms of literature.
- 3 : To help the students develop their test for literature and its judgement.
- 4 : To make the students realise creating language and art.

B. A. English Optional Paper III & IV: Forms of Literature

- 1 : To make the students aware of basic concepts of literature.
- 2 : To make them aware of forms of literature.
- 3 : To help the students develop their test for literature and its judgement.
- 4 : To make the students realise creating language and art.

B. A. English Compulsory Paper III & IV: A Course in Communicative English

- 1 : To take the linguistic skills of students at advanced level.
- 2 : To enhance communicative competence level of students.
- 3 : To groom the students as good communicators.

B. A. English Optional Paper V & VI: Literature in English

- 1: To make the students aware of literatures in English.
- 2: To make them aware of diverse cultures presented in Literature.
- 3: To help the students develop their ability to compare different literary worlds.
- 4: To develop awareness about different written literatures/ translated in English.

B. A. English Optional Paper VII & VIII: Literature in English

- 1: To have the students enlightened on the development of British Literature.
- 2: To prepare the students for clearing examinations and reading British Literature.
- 3: To introduce the students to post- colonialism which dominates the current academic sense of the world.
- 4: To make the students keep pace with current developments in Literature and discourse.
- 5 : To make students familiar with the contemporary discourse and Literature.

BA III English Optional

- 1: To introduce students to Modern English Literature.
- 2: To familiarize students with literary terms and introduce them with various streams in literary criticism and develop skills for literary evaluation.
- 3: To help learners to approach and appreciate Indian literature in English and make them see its place among world literature in English.
- 4: To introduce students to American literature and its diverse cultures reflected in writing.

Paper IX & XIII: Twentieth Century English Literature

- 1: To Understand how the literature of modern period relates to the important trends of 20th century.
- 2: To appreciate poem by T.S. Eliot and W.B Yeats.
- 3: To understand the themes of Osborne and G.B Shaw's plays.

Paper X & XIV: Introduction to Literary Criticism and Terms

- 1: To identify the classical Greek critics of literature.
- 2: To provide a brief overview of major critical theories by critics like Aristotle, Sir Philip Sidney, William Wordsworth and F.R. Leavis.
- 3: To understand the terms related to various genres of literature.

Paper XI & XV: Indian Writing in English

- 1: To understand nineteenth Century Reform - Movements in India; the Indian National Movement; Rise of the Indian Novel and Caste-Class.
- 2: To be aware of social, political, and cultural issues reflected in Indian writing in English, with reference to Indian social reformations, freedom struggle, women education and empowerment in nineteenth century.
- 3: To appreciate artistic and innovative use of language employed by writers the values and develop human concern through literary texts.

Paper XII & XVI: Project Work on History of English Literature

- 1: To understand the background of English literature and empower learners on its development.
- 2: To understand different aspects of research methodology.
- 3: To understand new trends, movements in English literature.

Course Outcomes

Sociology

B. A. Sociology Semester I Paper No-I: Introduction to Sociology (CC-1A)

- 1: The students learn to apply the sociological perspective in understanding how society shapes our individual lives.
- 2: It also provides a foundation for the other more detailed and specialised courses in Sociology.
- 3: The students learn how to read and interpret complex ideas and texts and to present them in cogent manner.

B. A. Sociology Semester I Paper No-II: Indian Social Institutions (CC-1B)

- 1: This paper is expected to instill knowledge about the fundamental institution.
- 2: Their governing principles and the continuity and change features of these institution.
- 3: The students learn how to read and interpret complex ideas and texts and to present them in cogent manner.

B. A. Sociology Semester II Paper No-III: Basic concepts in Sociology (CC-1C)

- 1: The course is intended to introduce the students to a sociological way of thinking.
- 2: It also provides a foundation for the other more detailed and specialised course in Sociology.
- 3: The course provides competitive atmosphere for the students.

B. A. Sociology Semester II Paper No-IV: Transformation in Social Institution (CC-2C)

- 1: Students have understood the transformation in social institution.
- 2: An acquaintance with change in Institution.
- 3: Institutions changes guide them in their future planning.

B.A. Semester III Paper No-V: -Problems of Rural India Paper no-VI:

- Contemporary Urban Issues

- 1: Learners will be made aware of changing scenario of Rural India and the ntemporary problems of rural development.
- 2: Learners are inculcated with analytical and thinking about urbanization urban planning and urban problems.

B.A. Part-II, Semester IV Paper no- VII: Population in India

Paper No-VIII: Sociology of Development

- 1: To understand causes, consequences of Indian population change.
- 2: To provide an overview of development Issues in India.

B.A. part-III Semester V paper: - Paper IX: Sociological Tradition Paper No. X: Introduction to Research Methodology Paper No. XI (Main) Urban Sociology

- 1: To provide the students with basic understanding of emergence of sociological thoughts.
- 2: To develop sociologists with their ntributions to sociology.
- 2: To introduce Research Methodology for better understanding of application of social sciences.
- 3: To enable learners with urban sociology.
- 4: To comprehend the basic elements of subject.

B. A. part - III Semester VI Paper NoXIII. : Sociological Theories Paper No. XIV: Social Research Methods Paper No.XVI: Urban Society in India

- 1: Acquaintance with the sociological thought of the Pioneers of Sociology
- 2: To introduce students with various steps in conducting research.
- 3: To analyze critically social problems of urban India.

Course Outcomes

Economics

B.A. I Year (Semester I) Economics Paper I Micro Economics (CC-1A)

As a foundation of Economics in this course students are expected to understand the meaning and scope of Micro Economics, the behaviour of an Economic agent, namely, a consumer, the price fluctuation in a market. The approach of this paper is to study the behaviour of a unit and analysis is generally static and in partial equilibrium framework. The units incorporated in this paper deal with nature and scope of Economics, the theory of consumer behaviour.

B.A. I Year (Semester I) Economics Paper I Macro Economics (CC-1B)

This course is designed to provide an introduction to the students about the basic building blocks of Macro Economics which will serve as a foundation throughout their career.

B.A. I Year (Semester II) Economics Paper II Micro Economics (CC-1C)

The purpose of this course on Micro Economics at the B. A. level is to enable students to have an understanding of the various components regarding price determination under various types of markets. Units incorporated in this paper would enable the students to know about the theory of production, cost and revenue analysis, forms of market and factor pricing theories.

B.A. I Year (Semester II) Economics Paper II Macro Economics (CC-2C)

This course is designed to make students aware of Macro Economics terminologies and make them familiar with Macro Economics terms and concepts in order to understand Economics aggregate level. It also aims to make the students aware about transitions in Economy measures to control it.

B.A.II Year (Semester III) Economics Paper 105 : Macro Economics

This paper of Macro Economics is designed to make undergraduate students aware of the basic theoretical framework underlying the field of Macro Economics.

B.A.II Year (Semester III) Economics Paper 106 : Economics (Economics of Development)

This paper would enable the students to know about theories of Development underlying the field of Economics of Development.

B.A.II Year (Semester IV) Economics Paper 107 Public Finance

This paper would provide understanding about the significance and scope of Public Finance. The main objective of this paper is to provide detailed information to students about the fiscal policy, public revenue, public debt and public expenditure.

B.A.II Year (Semester IV) Economics Paper 108 Statistical Methods

The main objective of this paper named Statistical Methods is to train the students to use the techniques of Statistical analysis which are commonly applied to economics problems. Statistical Method paper also deals with simple tools and techniques, which will help the students in data collections, presentation, analysis and drawing inferences about various Statistical hypotheses.

BA.III Year (Semester V) Economics Paper 109 International Economics

This paper provided the students a thorough understanding and deep knowledge about the basic principles that tend to govern the free flow of trade in goods and services at the global level. The contents of this paper, spread over various units, lay stress both on theory and applied nature of the subject that have registered rapid changes during the last decade

B.A.III Year (Semester V) Economics Paper 110 Agricultural Economics

The objective of this paper is to provide a detailed treatment of issues in agricultural economics to those intending to specialize in the area. Its objective is to familiarize students with policy issues that are relevant to Indian agricultural economics and enable them to analyze the issues, using basic micro-economics concept.

B.A.III Year (Semester V) Economics Paper 111 History of Economics Thought

This paper deals with basic ideas of classical, neo-classical and marginalist economists. The object of this paper is to understand students the basic economics ideas of various economics thinkers of the world.

B.A.III Year (Semester V) Economics Paper 112 Project work (Annually)

This course will inform students about the project writing skill as per the study of research methodology techniques. It also deals with the deep study of specific topics.

B.A.III Year (Semester VI) Economics Paper 113 Research Methodology

The aim objective of this paper is to provide information about social sciences research to the students of economics. This paper deals with importance of social research, research design, data collection and presentation of data.

B.A.III Year (Semester VI) Economics Paper 114 Industrial Economics

In the contemporary world with globalization and liberalization more and more attention is being given to industry. This paper intends to provide knowledge to the students on the basic issues such as concept and organization of a firm, productivity, efficiency, capacity utilization and debates involved in the industrial development of India.

B.A.III Year (Semester VI) Economics Paper 115 (C) Economy of Maharashtra

The students should know the basic features of the economy of Maharashtra. The students should also be able to understand the problems related to agriculture industries cooperative sector and infrastructure in the Maharashtra state.

B.A.III Year (Semester VI) Economics Paper 116 Project work (Annual Assessment)

This course will inform students about the project writing skill as per the study of research methodology techniques. It also deals with the deep study of specific topics.

Course Outcomes

Political Science

B. A. Political Science Paper I & III Principles of Political Science

- 1: To understand the basics of Political Science.
- 2: To study the development of rights- state background of political history.
- 3: To analyze transitions in societal systems - the structure and order of the system.
- 4 : To define terms in a social science outside their immediate area of expertise.
- 5: To create awareness among students about democracy.
- 6: To help students to understand social and political values in Indian political system.

B. A. Political Science Paper II & IV Indian Government and Politics

- 1: To study the prosperity of society.
- 2: To understand political events in government of India.
- 3: To understand basic principles of Indian nstitution.
- 4: To study the Indian nstitution.
- 5: To explain structure of union government and budgetary process in India.
- 6: To understand the framework of Indian supreme urt.
- 7: To explain party system and electoral reforms.

B. A. Political Science Paper V & VII

Indian Government and Politics

- 1: To study the prosperity of society.
- 2: To understand political events in government of India.
- 3: To understand basic principles of Indian nstitution.
- 4: To study the Indian nstitution.
- 5: To explain structure of union government and budgetary process in India.
- 6: To understand the framework of Indian supreme Court.
- 7: To explain party system and electoral reforms.

B. A. Political Science Paper VI & VIII

International Relations

- 1: To understand the behavior of individual entrepreneurs and firms rather than world politics, liberalism.
- 2: To understand important implications for international law and international relations.
- 3: To explain basic concepts in international relations.
- 4: To explore the nature of informal reasoning in international relations and to consider how reconstruction would help enhance.
- 5: To study various international and regional organizations.
- 6: To aware the students about major issues in internationalism.

B. A. Political Science Paper IX & XIII

Indian Political Thinkers

- 1: To understand modern political thinker's contribution.
- 2: To learn the problems in cultural transformation of Indians into non-Indians.
- 3: To study the religious, political, social and cultural thoughts of Indian political thinkers.
- 4: To study Dr. B.R. Ambedkar's thoughts on democracy, economy and society.
- 5: To evaluate critically M. N. Roy's radical humanism.
- 6: To understand Nehru's democratic and secular views and its applicability.
- 7: To know of ideas of Maulana Azad views on religion and politics.

B. A. Political Science Paper X & XIV

Western Political Thinkers

- 1: To understand the views of western political thinkers.
- 2: To understand the ideas of western political thinkers and its relevance.
- 3: To understand the thoughts of Plato on various political concepts.
- 4: To know ideas of Aristotle and his role in western politics.
- 5: To present thoroughly the wealth of historical and institutional materials.
- 6: To study the thoughts of J. S. Mill and its applicability.
- 7: To evaluate critically the thoughts of Karl Marx and its relevance.
- 8: To understand the theory of utilitarianism.

B. A. Political Science Paper XI & XIV

Political Ideologies

- 1: To study the development and features of political ideologies.
- 2: To understand relevance of political ideology in ntemporary period.
- 3: To study the origin of ideologies and clash of three political ideologies - liberalism, mmunism, and fascism.
- 4: To rrelate the theoretical discussion and analysis of ideologies to the transformations.
- 5: To study of ideology of socialism.
- 6: To evaluate critically the ideology of fascism.
- 7: To study the development and features of communism.
- 8: To explain the ideology of feminism.

Paper XII & XVI: Project Work

- 1: To understand the political ideologies.
- 2: To understand different aspects of research methodology.
- 3: To understand Indian and western political thinkers ideas and work.

Course Outcomes

History

B. A. History Paper No. I & III History of Maratha (1630-1818)

- 1: To introduce learners about the innovative study techniques in the of History of Marathas.
- 2: To provide value based conceptual and thought provocative.
- 3: To provide insights into the Mughal rulers and the Maratha Empire.
- 4: To introduce international elements in the study of Marathas to facilitate comparative analysis of the history.

B. A. History Paper No. II & IV History of Ancient India (Beginning to 1206)

- 1: To understand the ancient Indian history.
- 2: To understand the nature of races and tribes intermingled in early India.
- 3: To evaluate Hinduism, Jainism, and Buddhism in ancient times.
- 4: To understand the nature of past and obstacles that impedes India's progress as a nation.

B. A. History Paper No. V & VII History of Modern Maharashtra (1818-1960)

- 1: To familiarize students to the study of Maharashtra.
- 2: To acquaint learners with the basic understanding of developmental stage of Maharashtra.
- 3: To impart high quality education to the students with reference to Maharashtra.
- 4: To prepare the students for a variety of challenging careers through innovation in teaching and research.

History General Paper-VI & VIII History of Mughal India (A.D. 1526- 1757)

- 1: To understand the Mughal contribution to the Indian history.
- 2: To know the Mughal period.
- 3: To study Persian art and culture amalgamated with native Indian art and culture.
- 4: To study the political unity provided by the Mughal rulers.

History General Paper – IX & XIII Historiography

- 1: To understand and evaluate the development of history as a discipline.
- 2: To understand writing of historical accounts.
- 3: To highlight the significance of thinking "historiographically".
- 4: To provide new angles to research and interpretations.

History General Paper-X &XIV History of Indian national Movement (A.D. 1885-A.D. 1947)

- 1: To provide comprehensive understanding of the transformations in the economy of colonial India.
- 2: To introduce land and agrarian policies under the British rule.
- 3: To develop nationalism in learner's mind.
- 4: To understand the British economic policy and Indian revolts

Course Outcomes

B.Sc. Computer Science

Semester-I

B.Sc. [CS] CS111-T -Cocomputer Fundamentals

- 1: To introduce learners to computers.
- 2: To write algorithms and draw flowcharts which are the first step towards the computer programming.
- 3: Students will understand history of computers.
- 4: Students will learn different programming languages.
- 5: Students will be introduced with memory and storage devices.
- 6: Students will understand input and output devices.

CS112-T - Digital Electronics:

- 1: Students will understand computer number system, arithmetic operations, Boolean algebra and logic gates.
- 2: Students will learn K-maps and combinational and arithmetic logic circuits.
- 3: Students will understand flip-flops, counters, registers, their types and their functions.

CS-113 T - Operating System - I

Gain knowledge of System Software, Program and Process.

- 1: Understand Types of Operating System, Basic functions of O.S. and Evolution of O.S.
- 2: Understand the concept of Process, Process Control Block and Threads.
- 3: Understand the CPU scheduling Non-Pre-emptive and Pre-emptive Scheduling algorithms
- 4: Understand the concept of Synchronization and Deadlock.

CS114-T - Programming in C

- 1: Students will be introduced to C-programming language.
- 2: Students can use C-character set, basic elements and operators used in C-programming.
- 3: Students will learn the data types of C and input/output statements.
- 4: Students will be able to write the programs using C-language.
- 5: Students can use programs and array.

CS115 -T - Mathematical Foundation

- 1:** Students will learn set theory useful for higher studies.
- 2:** Students will learn graph theory.
- 3:** Students will understand different binary relations and functions.
- 4:** Students will learn Boolean algebra.

CS-116 -T - Programming Methodology

- 1 :** Learn the History and types of Programming.
- 2 :** Learn various approach of writing program.
- 3 :** Learn to develop simple algorithms and flow charts to solve a problem.

CS-131-T – English Communication Skills

- 1:** Understand the different styles of communication.
- 2:** Understand the effective speaking skills and develops effective reading comprehensions.
- 3:** Understand how to write a good personal profile and improve one's presentation skills.
- 4:** Develop good writing skills.

CS- 132- T Marathi Paper I & II (S.L) Bhatiya Bhasha : Marathi (Mayboli)

- 1:** To introduce learners to the literature of the writers from medieval and modern time.
- 2:** To make learners aware of social, political, cultural and enomic co nditions of the times.
- 3:** To introduce the style of prose, fiction and poetry.

Semester-II

CS 211-T- Data Structure:

- 1:** Ability to understand fundamental data structures like arrays, linked-lists, stack, queues, trees, graphs.
- 2:** Ability to understand abstract data types.
- 3:** Ability to program data structures and use them in implementations of abstract data types.
- 4:** Understanding of basic algorithmic complexity.
- 5 :** Ability to sensibly select appropriate data structures and algorithms for problems and to justify that choice.
- 6 :** Ability to understand searching and sorting algorithms, their implementation and suitable applications.

CS 212-T – 8086 Microprocessor

- 1:** Functional block diagram of 8086 microprocessor.
- 2:** Functions of each pin of 8086 microprocessor.
- 3:** Use of instructions in different addressing modes.
- 4:** To learn iconstruction set and write programs on 8086 kit.

CS-213-T- Operating System II

- 1:** Understand concept of File, Operation of file, File allocation methods.
- 2:** Understand Disk fundamental, Disk Scheduling, Disk management.
- 3:** Understand Dedicated devices, Shared devices, I/O Devices, I/O Hardware, Interrupts
- 4:** Understand Security Policy Mechanism- Protection and Authentication.
- 5 :** Understand the basic introduction to Android Operating System.

CS -214-T – Advance Programming in C

- 1:** Develop applications in C using structures and pointers
- 2:** Design applications using sequential and random-access file processing
- 3:** Identify the difference between call by value and call by reference.
- 4:** Students will be able to write the programs using C-language.
- 5:** Students can use programs and array.

CS- 215-T - Numerical Methods M-2

- 1:** Different number theory algorithms.
- 2:** Calculate approximate value for using approximation techniques.
- 3:** Solve numerical problems using different numerical methods.
- 4:** Write algorithms of different numerical techniques.

CS- 216-T – Data Base Management System

- 1:** Design a database.
- 2:** Normalize a database.
- 3:** Create a database perform various operations on database.

CS- 231-T – English Communication Skills (Soft Skill Development)

- 1:** Understand the significance and essence of a wide range of soft skills.
- 2:** Learn how to apply soft skills in a wide range of routine social and professional settings.
- 3:** Learn how to employ soft skills to improve interpersonal relationships.
- 4:** Learn how to employ soft skills to enhance employ ability and ensure workplace and career success.

CS- 232- T Marathi Paper I & II (S.L) Bhatiya Bhasha : Marathi (Mayboli)

- 1:** To introduce learners to the literature of the writers from medieval and modern time.
- 2:** To make learners aware of social, political, cultural and enomic co nditions of the times.
- 3:** To introduce the style of prose, fiction and poetry.

Semester-III

Advance Data Structure (CS301-T)

- 1: Students can use graph theory.
- 2: Students can understand sorting techniques.
- 3: Students can apply searching techniques.

Unix Operating System (CS302-T)

- 1: Students will be able to understand UNIX operating system.
- 2: Students will learn the basic commands to work on UNIX operating system.
- 3: Students can create and use files on UNIX operating system.
- 4: Students can learn shell script in programming on UNIX.

110 PC Maintenance (CS303-T)

- 1: Students will learn computer hardware and its maintenance.
- 2: Students will learn s/w installations for PC and its settings.
- 3: Students will understand networking, settings and antivirus installation.
- 4: Students will understand laptop and its components.

Programming in CPP (CS304-T)

- 1: To acquire basic object oriented concepts in oriented programming for software development.
- 2: To learn history, structure of C++ language and functions in C++.
- 3: To learn use of class, object and friend function.
- 4: To apply programming in C++ to solve the real world problem using class and objects.

Database management System (CS305-T)

- 1: To understand database, architecture, features, purpose and advantages of DBMS.
- 2: To understand components of a DBMS: Users, facilities & structure.
- 3: To learn data modeling & design.
- 4: To learn entity-relationship data model.
- 5: To understand the basics of relational model, normalization, relational algebra.
- 6: To introduce to oracle s/w.

Statistical Methods (CS306-T)

- 1: To enable learners for competitive examinations.
- 2: To apply statistics in real life.
- 3: To understand and calculate types of averages and variations.
- 4: To apply discrete and continuous probability distributions in business problems.
- 5: To organize, manage, and present data.
- 6: To exercise small projects that incorporate data presentation.

Practical based on data structure using CPP. (CS307-P)

- 1: To apply sorting techniques using C-language.
- 2: To apply searching techniques using C-language.

Practical based on DBMS (CS307-P)

- 1: To explain the features of database management systems.
- 2: To draw a scheme for their database.
- 3: To design conceptual models of a database using ER modeling.
- 4: To understand basics of relational model, normalization, relational algebra.

Practical based on PC Maintenance (CS308-P)

1: To understand computer hardware and motherboard. 2: To learn connecting of input, output and storage devices. 3: To understand installation of software on PC.

4: To learn formatting of hard disk and creating partitions on HD.

5: To study installation of device drivers and antivirus.

Practical based on UNIX (CS308-P)

1: To understand working with UNIX Operating System (OS).

2: To execute commands of UNIX OS.

3: To create and access files on UNIX OS.

4: To write and execute shell script for UNIX OS to get the desired result.

B.Sc. [CS] Semester-IV Software Engineering (CS401-T)1:

To understand software development process.

2: To learn different types of s/w.

3: To study different models of s/w.

Fedora (CS402-T)

1: Introduction to fedora operating system.

2: Understanding of basic mmands of Linux and fedora installation.

3: Understanding of software package administration, user and group administration.

4: Learning file system and file permissions.

Basics of Networking (CS403-T)

1: Learn networks, topologies and applications of networks.

2: Learn types of transmission media used in data mmunication.

3: Introduction to mobile telephone system, generations and its working.

Core Java (CS404-T)

1: To implement object oriented programming concepts.

2: To study inheritance and interfaces.

3: To study packages.

4: To create package in java.

5: To implement exception handling in Java.

Implement Multithreading: Adv. DBMS (CS405-T)

Student will be able to

1: Deal with database system using SQL to manipulate data.

2: Extract information on physical storage of data.

- 3: Architect database system.
- 4: Learn transaction processing and currency control.

Web Fundamental (CS406-T)

Students will be able

- 1: To understand HTML, XHTML, HTML5 and its elements.
- 2: To create static web pages.
- 3: To de program in web page.
- 4: To create dynamic web pages.
- 5: To study CSS3 for designing web page.
- 6: To design web pages using cascaded style sheets.

Practical based on Java in fedora OS (CS407-P):

- 1: To understand structure and model of Java programming language.
- 2: To use Java programming language.
- 3: To evaluate and analyze user requirements for software functionality.
- 4: To propose the use of certain technologies by implementing in Java programming language to solve problems.

Practical based on Web Fundamentals (CS407-P)

- 1: To understand higher level of HTML, CSS using HTML5 and CSS3.
- 2: To validate web pages/ web sites as per requirement.
- 3: To develop HTML forms and different attributes.
- 4: To work with drag and drop event handling.
- 5: To use JavaScript in HTML.

Practical based on Adv. DBMS and N/W (CS408-P)

- 1: To define database system concepts and apply normalization to the database.
- 2: To explain basic processing and optimization techniques for high level query.
- 3: To describe transaction processing concepts and use different ncurrency control techniques.
- 4: To discuss databases such as object oriented and distributed databases.

Practical based on Mini Project (CS408-P)

- 1:** To formulate a real world problem and develop its requirements.
- 2:** To develop a design solution for a set of requirements.
- 3:** To test and validate nformance of developed prototype against the requirements of the problem.
- 4:** To work as a responsible member and possibly a leader of a team in developing software solutions.

B.Sc. [CS] Semester-V Software Cost Estimation (CS501-T)

1: To learn software planning process, software spe and feasibility, types of resources, project estimation.

2: To study documentation techniques.

3: To study estimation of models.

Basic of Android O. S. (CS502-T)

1: To study environmental setup for android development.

2: To understand application components used in android development.

3: To learn the basic components of an android application.

4: To study resource organization, filters and user interface ntrols.

5: To understand event handling in android.

6: To describe the basics of graphics and multimedia support in android.

Core Java-II (CS503-T):

1: To understand input/output system in java.

2: To understand utilities in java language.

3: To provide an overview of database access and details of managing information using the JDBC API.

4: To learn use of Java applets to create interactive web programs: Fonts, lor, graphics, and animation.

Basic of Computer Graphics (CS504-T)

1: To understand basic concepts of computer graphics.

2: To create graphics using C-programming.

3: To perform 2D transformation.

4: To create algorithms.

5: To apply character generation techniques.

Beginners Programme with PHP (CS505-T)1:

Introduction to PHP.

- 2: To understand working of server-side programming on the web.
- 3: To use PHP basic syntax for variable, data types, operators and expressions and nstant.
- 4: To create nditional structures.
- 5: To store data in arrays.

Advanced Networking (CS508-T)

- 1: To understand OSI reference model.
- 2: To study data link layer, data link ntrols and protols.
- 3: To understand network layer and its protols.
- 4: To study transport layer and application layer.

Pr. Based on Adv. Java (CS509P -A)

- 1: To learn input/output stream used in java.
- 2: To learn utilities in java language.
- 3: To provide an overview of database access and details for managing information using the JDBC API.

Practical Based on Computer Graphics (CS509P -B)

- 1: Students can understand graphical functions of C-Language.
- 2: Students can perform 2D transformation, translation, scaling, and rotation of 2D object using C-Language.
- 3: Students can implement algorithms to draw line and circle.

Practical Based on Android O.S. (CS510P -A)

- 1 :To appreciate mobility landscape.
- 2: To design and develop mobile apps, using android as development platform, with key focus on user experience design.
- 3: To understand native data handling and background tasks and notifications.

Practical Based on PHP (CS510P -B)

- 1: PHP basic syntax for variable types and calculations.
- 2: To create conditional structures.
- 3: To store data in arrays.
- 4: To use PHP built-in functions and create custom functions.

B.Sc. [CS] Semester-VI Software Quality & Testing (CS601-T)1:

To understand software quality concepts.

- 2: To understand quality assurance.
- 3: To understand software testing strategies, verifications and validations.
- 4: To validate nventional applications.

Android Application Development (CS602-T)

- 1: To familiarize learners with android development tools.
- 2: To apply advanced features of Android SDK.
- 3: To develop android apps with different tools.
- 4: To use location services APIs to get information about device location, receive periodic location updates, and turn geographic ordinates into physical addresses.
- 5: To integrate Google maps into apps and use features such as location markers, map styling, street view, and location tracking.

Theory of Computation (CS603-T)

- 1: To study sets, relations, functions, graphs, trees and mathematical iconductions.
- 2: To study regular expressions.
- 3: To learn finite automate, NFA and DFA.
- 4: To learn formal languages, classification of languages, their relation and automaton.
- 5: To understand programming languages.

Advanced Computer Graphics (CS604-T)1:

- 1 .To understand 3D transformations.
- 2: To create curves and fractals.
- 3: To understand basics of lor models.
- 4: To create animations.

Advanced Programming with PHP (CS605-T)

- 1: To handle HTML forms in PHP.
- 2: To maintain state using cookies, session variables, hidden form fields and query strings.
- 3: To use PHP to manipulate files.
- 4: To use database in PHP.
- 5: to use an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.
- 6: To use MySQL functions.

Ethics and Cyber Law (CS608-T)

- 1: To understand the of spe of cyber laws, cyber jurisprudence and digital ntracts.
- 2: To identify intellectual property right issues in the cyberspace and design strategies to protect intellectual property.
- 3: To describe laws governing cyberspace and analyze the role of internet governance in framing policies for internet security.
- 4: To understand cybercrimes and analyze legal frameworks of different untries to deal with these cybercrimes.
- 5: To explain the importance of jurisdictional boundaries and identify the measures to overme cross jurisdictional cybercrimes.

Study of Information Technology Act 2000 Cyber Law Practical Based onAndroid Development (CS609 P -A)

- 1: To understand advanced features of Android SDK.
- 2: To familiarize with android development tools.
- 3: To develop android apps.
- 4: To use location services of APIs to get information about device location, receive periodic location updates, and turn geographic ordinates into physical addresses.
- 5: To integrate Google Maps into apps and use features such as location markers, map styling, Street View, and location tracking.
- 6: To understand messaging services used by android apps.

Practical Based on PHP (CS609 P -B)

- 1: To identify and handle types of errors while working with PHP.
- 2: To introduce Object Oriented Programming.
- 3: To understand the use of object-oriented API, SELECT, INSERT, UPDATE and DELETE data from tables.
- 4: To use MySQL database.
- 5: To use OOP in PHP to define and use classes.
- 6: To choose an engineering approach to solve problems, starting from the acquired knowledge of programming and operating systems.

Major Project (CS610P)

- 1: To formulate a real world problem and develop its requirements.
- 2: To develop a design solution for a set of requirements.
- 3: To test and validate the performance of the developed prototype against the original requirements of a problem.
- 4: To work as a responsible member and a leader of a team in developing software solutions.
- 5: To express technical and behavioral ideas and thoughts in oral settings.
- 6: To participate in and possibly moderate, discussions that lead to making decisions.

Course Outcome

BCA

Semerster I

Accountancy- I

- 1: To understand double entry accounting system and application of its rules.
- 2: To understand business transactions in preparing 'financial statements' of sole traders and partnership firms.
- 3: To know the mechanism of maintaining 'Single and Double lumn CashBook'.
- 4: To find early step employability in MSMEs in accounts.
- 5: To develop confidence for the preparation of professional urses like CA,CMA and CS.

Industrial Enomics

- 1: To understand the importance of micro and macro economics
- 2: To analyze the impact of e-mmerce on business models and strategy.
- 3: To describe the major types of enomics.
- 4: To understand the obstacles in the development of an under developedenomy.
- 5: To identify the factors of production and its rewards
- 6: To understand the indifference curve analysis.

Business Statistics

- 1: To produce appropriate graphical and numerical descriptive statistics for different types of data.
- 2: To apply probability rules and coconcepts related with discrete and continuous random variables to answer questions within a business context.

Operating System I

Learners will be able to understand....

- 1: Fundamental coconcepts of operating system
- 2: Types and functions of operating systems

- 3:** DOS structure and commands
- 4:** Applications of batch file programming
- 5:** To create and execute basic batch file scripts
- 6:** to understand differences between Windows and DOS

Communication Skills

- 1:** To understand and apply knowledge of human communication and language processes.
- 2:** To understand and acquire communication skills.

Basics of Web Technology I

- 1:** To understand the basics of web technology.
- 2:** To make aware the learners about coding in editors.
- 3:** To understand web designing
- 4:** To understand the basics of web designing.
- 5:** To create and execute web pages.
- 6:** To understand Html tags, CSS and JSS.

Semester II

Financial Accountancy II

- 1:** To describe, explain, and integrate fundamental concepts underlying accounting, finance, management, marketing, and economics.
- 2:** To apply information to support business processes, practices, such as problem analysis and decision making.

Operating System II

- 1:** To understand fundamental operating system abstractions.
- 2:** To understand processes, threads, files, semaphores, IPC abstractions, shared memory regions etc.

Business Mathematics

- 1:** To demonstrate basic marketing mathematics.
- 2:** To apply logic to solve problems including trade discounts, cash discounting, and markup and markdown calculations.

Programming in C

- 1:** To understand the fundamental concepts of programming
- 2:** To be aware of steps of problem solving, designing an algorithm and flowchart
- 3:** To understand the structure of procedure oriented programming
- 4:** To acquire ability to convert problems into programs

Principles of management

- 1:** To understand the primary functions of management and the roles of managers.
- 2:** To aware students about the major contributions done in the field of management.

Basics of Web Technology II

- 1:** To analyze a web page and identify its elements and attributes.
- 2:** To create web pages using XHTML and Cascading Style Sheets.
- 3:** To build dynamic web pages using JavaScript.
- 4:** To create XML documents.

Principles of management

- : To gain knowledge about all management process and create understanding in detail about the application of management in various specialized activities such as finance management, material management, HRM, etc.

Semester III

OOPs using

CPP

- 1: To describe the object-oriented programming approach in connection with C++
- 2: To apply the concepts of object-oriented programming.

Business law I

- 1: To understand the changing time business needs.
- 2: To create awareness about rights and the safety.
- 3: To understand amendments in business.
- 4: To understand threats and legal consequences.
- 4: To acquire skills to survive in business world.
- 5: To study rights of consumers and help students to develop their overall skills.

DBMS

- 1: To understand the basics of DBMS.
- 2: To make the learners about DBMS and relational database.
- 3: To understand relation between database systems.
- 4: To understand the techniques of concurrency.
- 5: To understand normalization and its rule.
- 6: To learn how to fetch fire the query in DBMS

E- Business Essential

- 1: To understand the concepts and nature of e- business.
- 2: To make aware of ethics of e-business.
- 3: To understand the relation between e-business and ICTs.
- 4: To understand e-business model and supply chain management.
- 5: To gain knowledge of internet banking.

Semester IV

Data Structure & algorithm

- 1:** To understand the fundamental concepts of Data Structure.
- 2:** To make learners aware of sorting techniques.
- 3:** To understand algorithms and their development.
- 4:** To applying the understanding in solving basic programming problems.
- 5:** To create and execute ideas using problem solving approach.

Cost Accountancy

- 1:** To enable learners to acquire management skills.
- 2:** To account for sts by factoring in both variable and fixed sts.

Java Programming

- 1:** To understand the differences between Java and CPP.
- 2:** To differentiate between structured and object-oriented programming approaches.
- 3:** To understand the significance of Java and jdk environment
- 4:** To become aware of code in java and develop applications
- 5:** To understand debug and remove errors.
- 6:** To create Applets in Java

MIS & DSS

- 1:** To analyze the impact of MIS on the working of an organization.
- 2:** To describe the major types decisions.
- 3:** To explain the process of Supply Chain Management.
- 4:** To identify the Limitations of Information Technology.

Business law – II

- 1:** To understand basic and broad knowledge in business laws in management.
- 2:** To learn the concepts, principles and theories.
- 3:** To understand simple business laws.
- 4:** To create awareness of the different business laws.

Entrepreneurship development

- 1:** To understand the nature of entrepreneurship.
- 2:** To understand the function of the entrepreneur in the successful, commercial application of innovations.
- 3:** To confirm an entrepreneurial business idea.

Advance Networking

- 1:** To plan the interworking of distributed application basing on SemanticWeb technology.
- 2:** To develop and evaluate distributed application architectures according to functional requirements.

Semester V : Management Accounting

- 1:** To explain the relationship between financial accounting and managerial accounting.
- 2:** To explain the concept of management accounting
- 3:** To explain the importance of management accounting for businesses

SQL 2017

- 1:** To build and maintain database using SQL commands.
- 2:** To use DML statements like insert, update and delete.
- 3:** To write and call stored procedures in database.
- 4:** To use functions stored in database.

VB:

- 1:** To understand the visual programming concepts.
- 2:** To explain basic concepts and definitions.
- 3:** To express constants and arithmetic operations.
- 4:** To distinguish between variable and data types

Organizational Behavior

- 1:** To demonstrate the applicability of the concept of organizational behavior.
- 2:** To demonstrate the applicability of analyzing the complexities associated with management of individual behavior in the organization.
- 3:** To analyze the complexities associated with management of the group behavior in the organization.

Software engineering

- 1:** To understand the SDLC and various software development models
- 2:** To become aware of the needs and requirements of software development
- 3:** To understand the development of applications.

Banking & Insurance

- 1:** To introduce the banking system in India.
- 2:** To explain the various functions of Reserve Bank of India.
- 3:** To enhance the understanding of factors of Electronic Banking educate about the forecasting and decision making procedure in management.
- 4:** To know the meaning of Insurance and study Insurance companies with its role and functions

Semester VI

Elements of Commercial Portal (HTML 5)

- 1:** To acquire the skills for website development skills.
- 2:** To become aware of current trends and technologies
- 3:** To understand the mobile OS development and get industry mpetentskills.

Business Law III

- 1:** To explain the concepts in business laws with respect to foreign trade.
- 2:** To apply the global business laws to current business environment.
- 3:** To analyze the principle of international business and strategies adoptedby firms to expand globally.

Software Testing

- 1:** To understand different software testing techniques and strategies andbe able to apply specific (automated) unit testing method to the projects.
- 2:** To distinguish characteristics of structural testing methods.
- 3:** to discuss the relevance of the services

Project

- 1:** To formulate a real world problem and develop its requirements.
- 2:** To develop a design solution for a set of requirements.
- 3:** To test and validate nformance of developed prototype against the requirements of the problem.
- 4:** To work as a responsible member and possibly a leader of a team in developing software solutions.

Course Outcomes

M.Sc.(Computer Science)

Semester I

Course Code CSC-401 (Constitution Of India)

1. Student will be able to understand the constitution of India.
2. Student will be able to know fundamental rights.
3. To learn constitution History & Drafting.

Course Code CSC-402 (Research Methodology.)

1. To learn Foundations and principles of research methodology.
2. To understand various methods/Mechanism involved solving, reviewing & Testing.
3. To understand choose appropriate quantitative or qualitative methods to collect data.

Course Code CSC-403 (Programming-1)

1. To learn basic skill required in writing programs.
2. To Understand develop the foundation for programming-2 and programming-3.
3. To familiar with different programming.

Course Code CSC-404 (Introduction to Algorithms)

1. To learn conventions and significance of writing algorithm.
2. To study estimate the performance of algorithms.
3. Study and implement simpler as well as complex data representation system.

Course Code CSC-405 (Relational Database Management System)

1. To understand the basic difference between database and relational database.
2. To learn provided mechanism for representation of database in to XML.
3. To understand SQL queries for retrieving information from databases.

Course Code CSC-406 (Mathematical foundation and statistical method)

1. Students are able to perform mathematical operations based on sets theory.
2. To understand a solid foundation for employment.
3. To learn statistical analysis.

Course Code CSC-407 (Modern Operating System)

1. To understand knowledge of memory management and deadlock algorithms.
2. Study of Linux operating system design.

Semester II

Course Code CSC-408 (Technical Report Writing)

1. To learn a comprehensive research methodology.
2. To understand critically analyze research methodologies.
3. To learn propose and distinguish appropriate research design.

Course Code CSC-409 (Programming-2)

1. To familiar with different programming .
2. To learn basic skill required writing programs.
3. To understand develop the foundation for programming 2 & 3.

Course Code CSC-410 (Data Communication)

1. To learn data communication and networking protocols.
2. To understand exchange of data between directly connected devices, aspects of transmission.
3. To study principles and mechanism required for exchange of data among computers.

Course Code CSC-411 (Software Engineering)

1. To understand analyze processing interactions and optimization processes.
2. To learn process models proper software Testing versions of Software.
3. To understand the st of designed software products.

Course Code CSC-424 (Foundation of Electronics)

1. To understand basic electronics in detail.
2. To learn digital basic electronics.
3. To understand electronic Instruments and communication basic.

Course Code CSC-440 (Digital Signal Processing)

1. To understand different signals.
2. To learn transform basic Fourier transform.
3. To understand filters and discrete Fourier transform.

Semester III

Course Code CSC-414 (Compiler Design)

1. To understand the concepts and principles of compiler design.
2. To learn grammars and language definition.
3. To Understand various phases of designing a compiler.

Course Code CSC-414 (Computer Graphics)

1. To understand basics of lighting and shading, Texture mapping.
2. To learn fundamental of 3D Graphics pipeline.
3. TO understand fundamental of modeling & animation.

Course code CSC – 444 (Microcontroller programming)

1. To learn design with PIC microcontroller.
- 2 To understand 8051 microcontrollers.
3. To learn embedded coding with 8051 microcontroller.

Course code CSC – 454 (Internet of Things).

1. To understand design some of the IOT applications.
2. To learn internet of things.
3. To learn controlling home appliances.

Semester IV

Course Code CSC– 416 (Dissertation)

1. To learn ability to communicate efficiently.
2. To understand ability to identify formulate & model problems
3. To design ability to acquire & apply fundamental principles of computer science.

Course code CSC - 420 (Seminar)

1. Ability to deliver & make use of visual audio & audio visual material.
2. Ability to speak cogently with or without notes & present & discuss either works as an individual.
3. Ability to evaluate information & use & apply relevant theories.

