Venkatesh Mahjan Senior College, Osmanabad



Re-Accredited with 'B' Grade by NAAC

filiated to Babasaheb Ambedkar Marathwada University, Aurangabad



Internal Quality Assurance Cell

Course outcome of all Departments Course Outcomes: Department of English B. A. First Year

Name of Course: (Compulsory English) Language Through Literature: An Anthology of Prose and Poetry

- **CO1:** They realize the beauty and communicative power of English.
- CO2: To familiarize students with excellent pieces of prose and poetry in English
- **CO3:** To strengthen student's ability in listening reading and writing.
- **CO4:** Introduce students to the grammatical properties in order to enable them write and speak English.
- **CO5:** To develop overall linguistic competence and communicative skills of the students.

Name of Course: The Structure of English (Optional English)

- **CO1:** To provide students advanced knowledge of English in matter of speaking and writing..
- **CO2:** To help students towards better pronunciation.
- **CO3:** To give basic knowledge of English Grammar.
- **CO4:** To have the knowledge of word formation process.
- **CO5:** To acquaint students with standard pronunciation of English.

Name of Course: Reading Literature (Optional)

- **CO1:** Enable students to read and appreciate various forms of literature.
- **CO2:** Introduce appropriate literacy strategies to read literature.
- **CO3:** To prepare students to go for detailed study and understanding of literature and language.
- **CO4 :** To develop an integrated view about language and literature in them.
- **CO5:** To expose students to the basics of literature and language.

Course Outcomes: Department of English

B. A. Second Year

Name of Course: English (Compulsory)

- **CO 1:** To train students in grammatical properties in order to enable them to write and Speak English.
- **CO 2:** To acquaint students about prose reading in order to train them in English speaking.
- **CO 3:** To develop competence among the students for self-learning

Name of Course: Literature in English 1550 to 1750

- **CO 1:** Student will be able to pinpoint how far literary language deviates from ordinary language.
- **CO 2:** Student can understand the literary merit, beauty and creative use of language.
- **CO 3:** To prepare students to go for detailed study and understanding of literature and l language
- CO 4: Student will do detailed study and understanding of literature and language
- **CO 5:** Student get exposure to the basics of poetry, novel, drama one of the forms of literature.

Name of Course: Literature in English (1750-1900)

- **CO 1:** To unravel many meanings in literacy text.
- **CO 2:** To develop integrated view about language and literature in them
- **CO 3:** To introduce some advanced units of language so that they become aware of the technical aspects and their practical usage

Course Outcomes: Department of English

B. A. Third Year

Name of Course: Twentieth Century English Literature

- CO 1: To introduce students to Modern English Literature as production of age.
- **CO 2:** To familiarize students with the communicative power of English.
- **CO 3:** To contribute to their overall personality development by improving their communicative and soft skills.

Name of Course: Introduction to literacy Criticism and Terms

- **CO 1:** To familiarize the students with the literacy terms and introduce them skills for literacy evaluation.
- CO 2: Student will be able interpret literary works in the light of the critical approaches
- **CO 3:** Students get familiar with the significant critical approaches and terms.
- CO 4: Students get aware of the nature and historical development of criticism

Name of Course: Indian writing in English

- **CO 1:** To help students to approach and appreciate Indian literature in English and make them see its place in English literature.
- CO 2: Student develop integrated view about language and literature among the students
- **CO 3:** Students get prepared to go for detailed study and understanding of literature and Language.
- CO 4: To introduce students to some advanced areas of language study.
- **CO 5:** To make the students see how Indian English poetry, drama, novel expresses the ethos and culture of India.

Name of Course: Project work on History of English literature

- **CO 1:** To make students understand the background of English literature and help them to write on its development.
- **CO 2:** To develop analytical, Critical attitude among the students.
- CO 3: To provide opportunity to the students to enrich their writing and presentation skill
- **CO 4:** Students get familiar students with the History of English Literature.
- **CO 5:** Students develop research skill among the students.

Internal Quality Assurance Cell Venkatesh Mahajan Senior College Osmanabad



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Course Outcomes: Department of Marathi

B. A. First Year

Name of Course: व्दितीयभाषाशआणिश्गदयपदयआणिउपयोजितमराठी

CO 1: मराठी भाषेची आवड निर्माण करणे.

- CO 2: मराठीभाषेचा कार्यालयीन, व्यावसायिक कामकाजात होणारा वापर लक्षात आणून देणे.
- CO 3: विदयार्थ्यां मध्ये भाषिक कौशल्याचा विकास होतो.

Name of Course: मराठी ऐच्छिक काव्यात्मक साहित्य- ।

- CO 1: काव्यात्मक आणि कथात्मक जाणीवा विकसित करणे.
- CO 2: भाषिक कौशल्याचा विकास होतो.
- CO 3: मराठी कथाकाव्याचे समीक्षण आणि रसग्रहण करतो.

Name of Course: मराठी ऐच्छिक काव्यात्मक साहित्य- ॥

- CO1: लेखनातील विविध प्रारूपाचे आकलन होते.
- CO 2: विद्यार्थी आजच्या प्रगत मुद्रणपद्धतीतीलनावीन्यपूर्ण बदलांचा सार्थ शोध घेतायेतो.
- CO 3: विद्यार्थ्यां मध्ये भाषिक कौशल्याचा विकास होतो.
- CO 4: विद्यार्थ्यांना लेखनातील विविध प्रारूपाचे आकलन होते.
- CO 5: विद्यार्थी विविध साहित्य प्रकारची ओळख फरक स्पष्ट करू शकतो.

Name of Course: ऐच्छिक मराठी कथात्म साहित्य -3

- CO 1: विद्यार्थ्यां मध्ये भाषिक कौशल्याचा विकास होतो.
- CO 2: विदयार्थी विविध साहित्य प्रकारची ओळख फरक स्पष्ट करू शकतो.

- CO 3: लेखनातील विविध प्रारूपाचे आकलन होते.
- CO 4: विद्यार्थ्यांना लेखनातील विविध प्रारूपाचे आकलन होते.

Name of Course: ऐच्छिक मराठी कथात्मसाहित्य -3

- CO 1: विदयार्थ्यांमध्ये भाषिक कौशल्या चाविकास होतो.
- CO 2: विद्यार्थी विविध साहित्य प्रकारची ओळख फरक स्पष्ट करूश कतो.
- CO 3: लेखनातील विविध प्रारूपाचे आकलन होते.
- CO 4: विद्यार्थ्यांना लेखनातीलविविध प्रारूपाचे आकलन होते.

Course Outcomes: Department of Marathi

B. A. Second Year

Name of Course: गद्य, पद्य वउपयोजित मराठी वाणिज्य व्यवहार, व्यवसाय आणि मराठीभाषा

- CO 1: वाङमय इतिहासाचा सर्वांगीण अभ्यास करणे.
- CO 2: वाङमयाचा इतिहासाचा सर्वांगीण अभ्यास करणे.
- CO 3: हकश्र्याव्य मध्यामा साठीलेखन कौशल्याचा अभ्यास करणे.
- CO 4: साहित्य प्रकारांतराची संकल्पना स्पष्ट करणे.

Name of Course : मराठीऐच्छिक- आधुनिकमराठी वाडमयाचा इतिहास

- co 1: वाङमय इतिहासाचासवांगीण अभ्यास करणे.
- CO 2: हकश्र्याव्य माध्यमासाठी लेखन कौशल्याचा अभ्यास करणे.
- **CO 3**: साहित्यप्रकारांतराचीसंकल्पनास्पष्टकरणे.

Name of Course: मराठीऐच्छिक: - आध्निक मराठीवाङ्मया चाइतिहास

- CO 1: विद्यार्थी आधुनिक मराठी वाङमयाचा इतिहास ओळखतो.
- CO 2: विद्यार्थी दोन काल खांडातील एकाच वाङमय प्रकारावर तौलनिकतिचार मांडतो.
- CO 3: विद्यार्थी वाङ्मयीन इतिहासाचा अभ्यास करतो.

Name of Course: मराठीऐच्छिक- साहित्य प्रकारांतर आणि साहित्याचे माध्यमांतर

- CO 1: मराठीभाषा साहित्यातील प्रकारांतर करता येते.
- CO 2: विविध साहित्य प्रकारचे माध्यमांतर करता येते.
- CO 3: कथेचे पटकथेत रुपांतर करतो.
- CO 4: वाङमय इतिहासाचासर्वांगीण अभ्यास करणे

Course Outcomes: Department of Marathi

B. A. Third Year

Name of Course: मराठीऐच्छिक - भारतीय साहित्य विचार

- CO 1: नव्या व्याख्या उद्रिष्ट जनककारणाचा शोध घेता येतो.
- CO 2: विद्यार्थ्यांना भारतीय साहित्याचा परिचय होतो, त्याचे रसग्रहण करतो.
- CO 3: भारतीय साहित्यातीलसमाजजीवनाच्याप्रतिबिंबाचाशोधघेतो.

Name of Course: मराठी ऐच्छिक - भाषा विज्ञान

- CO 1: विद्यार्थी भाषा शास्त्राचा सार्थ शोध घेतो.
- CO 2: विद्यार्थी भाषेचा शास्त्रीयपातळीवर अभ्यास करतो.
- CO 3: विद्यार्थी भाषा आणि बोली यांचा परस्पर संबंध लक्षात येतो.
- CO 4: विद्यार्थी विविध साहित्या प्रती अभिरुची वाढवतो.

Name of Course: मराठी ऐच्छिक-मध्यय्गीन मराठी सातहत्याचा इतिहास

- CO 1: नव्या व्याख्या उद्रिष्ट जनककारणाचा शोध घेता येतो.
- CO 2: विद्यार्थी दोन काल खांडातील एकाच वाङमय प्रकारावर तौलनिकतिचार मांडतो.

Course Outcomes: Department of Marathi

M.A. Second Year

Name of Course: आध्निक मराठी वांग्मयाचा इतिहास(१९२० ते २०००)

- CO 1: इसवी सन 1920 नंतरच्या वांग्मय इतिहासाचा सर्वांगीण अभ्यास करतात.
- CO 2: या कालखंडातील विविध वांग्मय प्रकार लेखना पाठीमागच्याप्रेरणा व प्रवृत्ती लक्षात घेतात.
- CO 3: मराठी संस्कृती व साहित्य शिवायइतर संस्कृती व साहित्याचा झालेला परिचय आणि त्याचा मराठी साहित्यावरील प्रभाव लक्षात घेतात.
- CO 4: ऐतिहासिक घटना व कलाकृती यांचा विचार लक्षात घेतात.
- CO 5: या कालखंडातील विविध प्रवाह महत्त्वाचे ग्रंथकारव त्यांच्या साहित्यकृतीचा अभ्यास करतात.

Name of Course: समाज भाषा विज्ञान आणि बोलींचा अभ्यास

CO 1: समाज संस्कृती व भाषा यांच्यातील परस्पर संबंध लक्षात घेतात.
CO 2: जगातील प्रमुख भाषा कुलांचापरिचय करून देण्यास मदत करतात.
CO 3: मराठी प्रमाण भाषेबरोबरच इतर बोलींचा अभ्यास करण्यास मदत करतात.
CO 4: मराठीतील अन्य भाषेचा प्रभाव उलगडून दाखवण्यास मदत करतात.
CO 5: समाज भाषा विज्ञानातील विविध संकल्पना समजण्यास मदत करतात.

Name of Course: तौलनिक साहित्य: तत्व, कलाकृती व उपयोजन

- CO 1: तौलनिक साहित्य संकल्पना समजून घेतात.
- CO 2: साहित्याच्या आदान-प्रधानाची प्रक्रिया अवगत करून घेतात.
- CO 3: भारतीय साहित्य बाबतचे विविध दृष्टिकोन अभ्यासतात.
- CO 4: दोन कलाकृतीची तुलना करतात.

Name of Course: मुख्य उपक्रम/ कृती उपक्रम

- CO 1: तंत्रज्ञान व भाषा यांचा सहसंबंध स्पष्ट करतात.
- CO 2: मराठीतील ई संधीची आवश्यक कौशल्य आत्मसात करण्यास मदत करतात मराठीतील ई संधीच्या संदर्भातरोजगाराचीकार्यक्षेत्रे लक्षात घेण्यास मदत करतात.
- CO 3: मराठीतील ई संधीवर प्रभुत्व मिळवण्यास मदत करतात.

Name of Course: वैकल्पिक विषय- एकालेखकाचा अभ्यास

- CO 1: एका लेखकाचा समग्र अभ्यास करतात
- CO 2: एका लेखकाचा अभ्यास कसा करावा हे समजून घेतात
- CO 3: एका लेखकाच्या साहित्यकृतीतील विविध जाणीवालक्षात घेतात
- CO 4: एका लेखकाच्या रचनेतील वाड् मरीन मूल्य तपासतात
- CO 5: लेखकाचेवाड् मयाच्याइतिहासातील स्थान अधोरेखित करतात.

Name of Course: प्रकल्प लेखन

- CO 1: विदयार्थ्यांना क्षेत्रीय संशोधनाची गोडी लागेल
- CO 2: परिसरातील लोककथा लोकगीते म्हणी वाक्यप्रचार संकलित करण्यास मदत करतात
- CO 3: व्यवसायाभिम्ख प्रशिक्षणाची कौशल्य आत्मसात करतात
- CO 4: व्यवसायाभिम्खप्रशिक्षणाम्ळे क्षमता वाढण्यास मदत करतात

Name of Course: वर्णनात्मक भाषाविज्ञान

- CO 1: भाषा विषयाचे भान सजग ठेवण्यास मदत करतात.
- CO 2: भाषेच्या स्वरूपाची माहिती करून घेतात.
- CO 3: भाषा उच्चाराच्या स्थानांची माहिती करून घेतात.
- CO 4: भाषा अभ्यासाच्या पद्धतीचे डोळस भान निर्माण करतात.
- CO 5: भाषा विज्ञानाशी संबंधित अभ्यास क्षेत्रांची ओळख करून घेतात.

Name of Course: आध्निक मराठी वांग्मयाचा इतिहास 1818 ते 1920

- CO 1: इस 1818 नंतरच्या वांग्मयइतिहासाचा सर्वांगीण अभ्यास करतात.
- CO 2: या कालखंडाचीसामाजिक, सांस्कृतिक, पार्श्वभूमी लक्षात घेतात.
- CO 3: या कालखंडातील विविध प्रवाह, महत्त्वाचे ग्रंथकार, त्यांच्या साहित्यकृतीचा अभ्यास करतात.
- CO 4: ऐतिहासिक घटना व कलाकृतींचा योग्य संबंध लावतात.

Name of Course: लोकसाहित्य

- CO 1: लोकसाहित्याची साहित्य संकल्पना समजून घेतात.
- CO 2: लोकसाहित्याच्या अभ्यासाचे महत्त्वजाणून घेतात.
- CO 3: लोकसाहित्याच्या शास्त्रीय अभ्यासावर प्रकाश टाकतात.
- CO 4: लोकसाहित्यातून आलेल्याविविध जीवनाचा आढावा घेतात.

Name of Course: मध्यय्गीन धर्मसंप्रदाय भाग1

- CO 1: संप्रदाय ही संकल्पनालक्षात घेतात.
- CO 2: महाराष्ट्रातील विविध संप्रदायाचा परिचय करून घेतात.
- CO 3: महाराष्ट्रातील विविध संप्रदायांनी केलेली मराठी भाषेची सेवासमजून घेतात.
- CO 4: विविध संप्रदायातील तत्त्वज्ञान लक्षात घेतात.

Name of Course: मराठी भाषेचा इतिहास व समाज भाषा विज्ञान

- CO 1: मराठी भाषेचा इतिहास लक्षात घेतात
- CO 2: समाज, संस्कृती व भाषा यातील परस्पर संबंध लक्षात घेतात
- CO 3: जगातील प्रमुख भाषेचा अभ्यास करतात
- CO 4: मराठी प्रमाण भाषेबरोबरच इतर बोली भाषेचा अभ्यास करतात
- CO 5: समाज भाषा विज्ञानातील विविध संकल्पना समजून घेतात.

Name of Course: आध्निक मराठी वांग्मयाचा इतिहास1920 ते,2000

- CO 1: 1920 नंतरच्या वांग्मय इतिहासाचा अभ्यास करतात.
- CO 2: मराठी संस्कृती वसाहित्यशिवायइतर संस्कृती व साहित्याचा मराठी साहित्यावरील प्रभाव लक्षात घेतात.
- CO 3: विविध साहित्य प्रवाहातील साहित्य कृतींचा अभ्यास करतात.
- CO 4: ऐतिहासिक घटना व कलाकृतीचा विचार करतात.

Name of Course: लोक वाङ्मय प्रकार

- CO 1: लोक वांग्मय प्रकाराची संकल्पना समजून घेतात.
- CO 2: लोकसाहित्याच्या अभ्यासाचे महत्त्वलक्षात घेतात.
- CO 3: लोकसाहित्याच्या विविध प्रकारावर प्रकाश टाकतात.
- CO 4: लोक वाङ्मयातून विविध जीवनाचा आढावा घेतात.

Name of Course: मध्यय्गीन धर्म संप्रदाय भाग 2

- CO 1: वारकरी, दत्तनागेश व सुफीसंप्रदायाचे स्वरूप लक्षात घेतात
- CO 2: वारकरी संप्रदायाच्या लोकप्रियतेची कारणे समजून घेतात
- CO 3: विविध संप्रदायाचा समाज व संस्कृती वरील प्रभावलक्षात घेतात
- CO 4: वारकरी, दत्त, नागेश व सुफीसंप्रदायातील मराठी साहित्य संपदेवर प्रकाश टाकतात.

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Course Outcomes: Department of Hindi

B. A. B./B.Sc./B. Com. First Year

Name of Course:- हिंदी (द्वि. भा.) प्रश्नपत्र क्र. १ 'सामान्य हिंदी - १'

- **CO 1** संवेदना का विकास
- CO 2 कथा साहित्य का परिचय
- CO 3 भाषा कौशल का विकास
- CO 4 हक्श्राव्य माध्यमों साधनों का प्रयोग सीखना
- CO 5 स्वाध्याय एवं परियोजना का स्वरुप समझना

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १ 'उपन्यास साहित्य'

- CO1 साहित्य आस्वादन एवं अभिरूचि का परिसंस्कार
- CO 2 जीवन मूल्यों के प्रति आस्था
- CO 3 उपन्यास साहित्य का अध्ययन
- CO 4 लेखन तथा भाषण कौशलों का विकास
- CO 5 कार्यशाला आयोजन कौशल का विकास

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १ 'उपन्यास साहित्य'

- CO1 साहित्य आस्वादन एवं अभिरूचि का परिसंस्कार
- CO 2 जीवन मूल्यों के प्रति आस्था
- CO 3 उपन्यास साहित्य का अध्ययन
- CO 4 लेखन तथा भाषण कौशलों का विकास
- CO 5 कार्यशाला आयोजन कौशल का विकास

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. २ 'नाटक साहित्य'

- CO1 हिंदी नाटक तथा रंगमंच का अध्ययन
- CO 2 रंग संवेदना का विकास
- CO 3 नाट्यास्वादन तथा नाट्यालोचन क्षमता का विकास
- CO 4 हक्श्राव्य साधनों के प्रयोग की क्षमता का विकास
- CO 5 कथा साहित्य के नाट्यरूपांतर की क्षमता का विकास

Name of Course:- हिंदी (द्वि. भा.) प्रश्नपत्र क्र. २ 'सामान्य हिंदी -२'

- CO1 लेखन कौशल का विकास
- CO 2 पत्राचार कौशल का विकास
- CO 3 अन्वाद कौशल का विकास
- CO 4 कंप्यूटर का सामान्य ज्ञान
- CO 5 संक्षेपण और पल्लवन का क्षमता

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ३ 'हिंदी गद्य साहित्य '

- CO1 कहानी साहित्य का अध्ययन
- CO 2 व्यंग्य साहित्य का अध्ययन
- CO 3 साहित्यिक संवेदना का विकास
- CO 4 साहित्य आस्वादन तथा मूल्यांकन क्षमता का विकास
- CO 5 कहानी एवं व्यंग्य का नाट्यारूपांतरण क्षमता का विकास

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ४ 'एकांकी साहित्य '

- CO1 हिंदी नाटकों की भेदों का अध्ययन
- CO 2 एकांकी साहित्य का अध्ययन
- CO 3 एकांकी पठन एवं मंचन की क्षमता का विकास
- CO 4 स्त्री-विमर्श का परिचय
- CO 5 कथ्य और शिल्प का परिचय

Course Outcomes: Department of Hindi

B. A. B./B.Sc./B. Com. Second Year

Name of Course: - हिंदी (द्वि. भा.) प्रश्नपत्र क्र. ३ 'सामान्य हिंदी -३'

- CO1 साहित्य आस्वादन अभिरूचि का परिसंस्कार
- CO 2 जीवनमूल्यों के प्रति आस्था
- CO 3 अत्याध्निक इलेक्ट्रोनिक माध्यमों का परिचय
- CO 4 भाषायी कौशलों का विकास
- CO 5 कथेतर गद्य विधाओं का परिचय

B.A. Second Year

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ५ ' कथेतर गद्य साहित्य '

- CO1 साहित्य आस्वादन अभिरूचि में वृद्धि
- CO 2 जीवन मूल्यों के प्रति आस्था

- CO 3 हिंदी कथेतर गद्य परम्परा का परिचय
- CO 4 हक्श्राव्य माध्यमों के प्रयोग की क्षमता का विकास
- CO 5 लेखन पठन कौशल वृद्धि के लिए अभ्यास

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ६ 'प्रयोजनमूलक हिंदी - १'

- CO1 हिंदी भाषा के विविध रूपों का परिचय
- CO 2 राजभाषा हिंदी के विभिन्न पहलुओं का परिचय
- CO 3 प्रयोजनमूलक भाषा का परिचय
- CO 4 अन्वाद की भूमिका का परिचय
- CO 5 भाषायी सर्वेक्षण क्षमता का विकास

B. A. B./B.Sc./B. Com. Second Year

Name of Course: - हिंदी (द्वि. भा.) प्रश्नपत्र क्र. ४ 'सामान्य हिंदी -४'

- CO1 साहित्य आस्वादन अभिरूचि का परिसंस्कार
- CO 2 जीवनमूल्यों के प्रति आस्था
- CO 3 कथेतर गद्य विधाओं का परिचय
- CO 4 पारिभाषिक शब्दावली का परिचय
- CO 5 अश्द्धि शोधन के क्षमता का विकास

B. A. Second Year

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ७ 'आधुनिक हिंदी कविता'

- CO1 साहित्य आस्वादन अभिरूचि का परिसंस्कार
- CO 2 आधुनिकता का परिचय
- CO 3 हिंदी पद्य परम्परा का परिचय

- CO 4 कविता और लम्बी कविता के शिल्प का परिचय
- **CO 5** खंडकाव्य विधा का परिचय

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ८ 'प्रयोजनमूलक हिंदी - २'

- CO1 हिंदी भाषा के विविध रूपों का परिचय
- CO 2 राजभाषा हिंदी के विभिन्न पहलुओं का परिचय
- CO 3 प्रयोजनमूलक भाषा की भूमिका का परिचय
- CO4 जनसंचार माध्यमों में अनुवाद की भूमिका का परिचय
- CO 5 प्रारूपण, टिप्पण, प्रतिवेदन एवं समाचार लेखन का परिचय

Course Outcomes: Department of Hindi

B. A. B./B.Sc./B. Com. Second Year Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ९'प्रादेशिक साहित्य'

- CO 1 प्रादेशिक साहित्य का ज्ञान
- CO 2 मातृभाषा और अन्य भाषा का सम्बन्ध का परिचय
- CO 3 भारतीय साहित्य का अध्ययन
- CO 4 विश्व साहित्य की अवधारणा का परिचय
- CO 5 दलित विमर्श का परिचय

Name of Course: - आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास'

- CO1 हिंदी साहित्य की परम्परा का परिचय
- CO 2 रासो, जैन, सिद्ध और नाथ साहित्य का परिचय
- CO 3 सग्ण और निर्ग्ण भक्ति काव्य की पृष्ठभूमि का परिचय

CO 4 संत, सूफी, कृष्ण भक्ति और राम भक्ति धाराओं का परिचय

CO 5 रीतिबद्ध, रीतिसिद्ध और रीतिम्क्त काव्यधाराओं का परिचय

बी. ए. तृतीय वर्ष पंचम सत्र

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. ११'साहित्यशास्त्र - १ '

- CO1 साहित्य चिंतन का अध्ययन
- CO 2 साहित्यालोचन क्षमता का विकास
- CO 3 साहित्य सृजन के संस्कार
- CO 4 संस्कृत काव्यशास्त्र का परिचय
- CO 5 पाश्चात्य साहित्यशास्त्र का परिचय

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १२'प्रकल्प कार्य - १ '

- CO1 पठन-लेखन कौशल का विकास
- CO 2 आलोचनात्मक क्षमता का विकास
- CO 3 अनुसंधानात्मक दृष्टि का विकास
- CO 4 साहित्य संकलन-सम्पादन क्षमता का विकास
- CO 5 टंकण एवं अशुद्धि शोधन क्षमता का विकास

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १३'मध्यकालीन काव्य'

- CO1 भारतीय भक्ति आन्दोलन का अध्ययन
- CO 2 रीतिकालीन संवेदना का अध्ययन
- CO 3 मध्यकालीन सांस्कृतिक संवेदना का अध्ययन
- CO 4 मध्यकालीन कविता के शिल्प विधान का अध्ययन
- CO 5 मानवतावाद का परिचय

Name of Course: - आधुनिक हिंदी साहित्य का इतिहास'

- CO 1 आध्निकता का परिचय
- CO 2 सांस्कृतिक पुनर्जागरण का परिचय
- CO 3 राष्ट्रीय काव्यधारा का परिचय
- CO 4 दलित, आदिवासी, स्त्रीवादी कविता का परिचय
- CO 5 गद्य विधाओं की रचनाओं का परिचय

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १५ ' साहित्यशास्त्र -२ '

- CO1 साहित्य चिंतन का अध्ययन
- CO 2 साहित्यालोचन क्षमता का विकास
- CO 3 साहित्य सृजन के संस्कार
- **CO 4** संस्कृत काव्यशास्त्र का परिचय
- **CO 5** पाश्चात्य साहित्यशास्त्र का परिचय

Name of Course: - हिंदी (ऐ.) प्रश्नपत्र क्र. १६' प्रकल्प कार्य -२ '

- CO1 पठन-लेखन कौशल का विकास
- CO 2 आलोचनात्मक क्षमता का विकास
- CO 3 अनुसंधानात्मक दृष्टि का विकास
- CO 4 साहित्य संकलन-सम्पादन क्षमता का विकास
- CO 5 टंकण एवं अश्द्धि शोधन क्षमता का विकास



PRINCIPAL Venkatesh Mahajan Senior College, Osmanabad 413501

Course Outcomes: Department of History

B. A. First Year

Name of Course: Shivaji and His time (1630-1707)

- **CO 1:** Student able to understand between the meaning of local history, National History and International history.
- **CO 2:** Understand the background and the inspiration behind the establishment of Swarajya.
- **CO 3:** Explain the reasons behind Chhatrapati Shivaji's early conflicts with the regional lords and the outsiders.
- CO 4: Know about the importance of grand condition of Chhatrapati Shivaji

Name of Course: History of modern Maharashtra (1818–1905)

- **CO 1:** Identify the importance and the legally of freedom movement
- **CO 2:** Distinguish the detail account of British raj as well as it's over all impacts on the Indian society.
- CO 3: Evaluate the Renaissance and Religious and social reforms movement in India
- CO 4: Students have understood institutional experiments in socio religious reformism

Name of Course: History of the Marathas (1707 – 1818)

- **CO 1:** Understand the formation of welfare state during the Marathas rule.
- **CO 2:** Students will be able to examine the difference between fact and fiction of Maratha India. To introduce the students to the regional history of Marathas.
- **CO 3:** Understand the central and provincial administration of Marathas under the Peshwas.
- **CO 4:** To introduce the students to the regional history of Marathas.

Name of Course: Twentieth century Maharashtra (1905 – 1960)

- **CO 1:** Understand the contribution of Maharashtra in India National Movement
- **CO 2:** Understand the importance of samyukta Maharashtra Movement.
- CO 3: Understand early political awakening in India freedom struggle

CO 4: Identify the social institutions of late nineteenth century.

Course Outcomes: Department of History

BA. Second Year

Name of Course: History of Early India (up to 300 BC)

- **CO 1:** Identify the various types of sources of Ancient India History.
- **CO 2:** Identify the importance and the legally of Vedic period.
- **CO 3:** Know about the political Development in India during Maurya Empire.

Name of Course: History of Delhi Sultanate (1200 – 1526)

- **CO 1:** Understand early difficulties of Sultan's in India.
- **CO 2:** Know about the political and administration of the saltant rule
- **CO 3:** Identify the developments and unique legacy of Art and Architecture during the saltant period.
- **CO 4:** Understand the aspects of fiscals and Monetary system under the Sultanate.

Name of Course: History of India (300 BC - 650)

- **CO 1:** Perceive about the political Development in India during saks, kushans, Satvahana and Gupta Empire.
- **CO 2:** Understand about the political Development in India during vardhan, Dynasty and Vakatak Empire.
- **CO 3:** Understand the about the caves, temples, penting and fabric that period.
- **CO 4:** Understand the about sources material for the study literary and Archaeological.

Name of Course: History of Mughal India (1526 – 1757)

- **CO 1:** Understand the administrative set up of Mughals.
- **CO 2:** Grasp the some aspects of fiscals and Monetary system of Mughals.
- **CO 3:** Understand the about the Establishment of Mughals Empire in Indian under the leadership of Babare.
- **CO 4:** Understand about the importance and development in Administrative system during the Mughal period

Course Outcomes: Department of History

BA. Third Year

Name of Course: Historiography

- **CO 1:** Identify the meaning Nature and scope of History
- **CO 2:** Grasp the details of various types of sources and It's importance in History writing.
- **CO 3:** Understand about the Research process in Historical research
- **CO 4:** Critically analyze the process of Development of Historiography since ancient times to modern.

Name of Course: History of Indian National Movement (1885 – 1947)

- **CO 1:** Identify the Indian National Movement to Modern Indian time.
- **CO 2:** Understand the events which lend to the growth of Nationalism in India.
- **CO 3:** Acquaint himself with major events of the freedom struggle under the leadership of Mahatma Gandhi
- **CO 4:** Explain the contribution of Revaluationaries, left, Movement and India National Army

Name of Course: History of Modern India (1957-1857)

- **CO 1:** Student will be able to explain our heritage through cultural aspects of ancient India
- **CO 2:** Student will be able to formulate basis of modern India through different concepts like Modernity and Rule of Law
- CO 3: Student will be able to analyze the process of rise of modernization in India.
- **CO 4:** Student will be able to analyze social background of Indian Nationalism.

Name of Course: Project work

CO 1: Students get information about Forts.

- **CO 2:** Students get information about Caves.
- **CO 3:** Student to understand local history.
- **CO 4:** Students get information about historical coins.

Name of Course: Field of History

- **CO1:** Know about the meaning and object Archaeology and material science A brief History of Indian.
- **CO 2:** Apply the theory of Historicism as a professional skills in various fields of intellect.
- **CO 3:** Acquire basic knowledge of history in various carriers i.e. museum, historical, tourism conservation and preservation
- **CO 4:** Understand about the Historical Tourism and It's importance in grasping historical facts

Name of Course: Landmark of the History of Modern World

- **CO 1:** Understand about the New Imperialism of world countries.
- **CO 2:** Grasp about the French Revolution in France.
- **CO 3:** Grasp about the Industrial Revolution in England.
- **CO 4:** Grasp about the second World war.

Name of Course: Glimpses of the History of Marathwada (up to 1948 A. D.)

- **CO 1:** Understand political History of Marathwada: A brief survey.
- **CO 2:** Understand Art and Architecture, Temple, Architecture Forts in Marathwada.
- **CO 3:** Socio –Economical and cultural History of under the Nizam state in in Marathwada.
- **CO 4:** Understand Hyderabad freedom struggle role of all India scheduled cast federation in Hyderabad freedom struggle.

Name of Course: Project Work

- **CO 1:** Students get information about Forts.
- CO 2: Students acquire knowledge about Historical monuments
- **CO 3:** Students get information about historical coins.
- CO 4: Students understand local history.

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Course Outcomes: Department of Sociology

BA. First Year

Name of Course: Introduction to Sociology

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

Name of Course: Indian Social Institutions

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

Name of Course: Basic Concepts in Sociology

- **CO 1:** The course is intended to introduce the students to a sociological way of thinking.
- **CO 2:** Italso provides a foundation for the other more detailed and specialized course in sociology.
- **CO 3:** The course provides competitive atmosphere for the students.

Name of Course: Transformation in Social Institution

- **CO 1:** Students have understood the transformation in social institution.
- **CO 2:** Anacquaintance with changes in Institutions.
- **CO 3:** Institutions changes guide them in their future planning.

Name of Course: Indian Society

- **CO 1:** They are made familiar with the Indian Society.
- **CO 2:** Its linkages and continuity with past and present.
- **CO 3:** This paper provides comprehensive understanding of Indian Society.
- **CO 4:** To provides comprehensive understanding of Indian Society.

Course Outcomes: Department of Sociology B A. Second Year

Name of Course: Cinematic Sociology

- **CO 1:** Student understand the importance of Cinema's impact on Society.
- **CO 2:** Students will investigate question through a filmic analysis of sociological issues. will consider both narrative and documentary films and use them to engage in a sociological exploration of identity, interaction, inequality and institutions,
- **CO 3:** Students explore the familiar path of cinema to connect to larger theoretical grounds.
- CO 4: To familiarize students with important theories in the Cinematic Sociology.

Name of Course: Sociology of Mass Media

- **CO 1:** An appreciation of mediatized character of social existence and its history.
- **CO 2:** An acquaintance with concepts and various theoretical strands in sociology of media.
- **CO 3:** An understanding of social, political and cultural processes that underpin the operations of our mediatized ecosystem and their effects.
- **CO 4:** To introduce the students to certain major themes of outlining the interconnections between media and society.

Course Outcomes: Department of Sociology B A. Third Year

Name of Course: Sociological Traditions

- **CO 1:** To provide the students with the understanding of historical, socioeconomic and intellectual forces in the rise of sociological theory.
- **CO 2:** To provide the students with the basic understanding of emergence of sociological thought and to know about pioneer sociologists with their contributions to sociology.
- CO 3: Know aboout pioneer sociologist and their contribution to sociology

Name of Course: Introduction to Research Methodology

- **CO 1:** To introduce the Research Methodology for better understanding of application of social sciences.
- **CO 2:** To equip the students with the procedures tools and techniques of social research.
- **CO 3:** To equip students with procedures tools and techniques of social research.

Name of Course: Social Problems in India

- **CO1:** To identify and analyze some of emerging social problems from sociological perspective.
- **CO 2:** sensitize the students about social problems of contemporary India and to discuss the measures on it.
- **CO 3:** Indentify and analyze some emerging social problems.

Name of Course: Sociological Theories

- **CO 1:** To understand basic theoretical approach and to develop sociological thinking.
- **CO 2:** To know the theoretical contribution made by prominent sociologist of their time.
- **CO 3:** To Make aware the students the disorganization occurring due to rapid changes in Indian society.

Name of Course: Social Research Methods

CO 1: To understand primary technique and use of social research

- **CO 2:** The course can serve as a helping hand to students to understand primary technique and the use of social research.
- **CO 3:** The course is designed in the view of increasing use of computers and statistical tools in social research.

Name of Course: Social Disorganization in Contemporary India

- **CO 1:** To elaborate on changes that took place since modernization and liberalization an know causes and impact of social disorganization.
- **CO 2:** To Make aware the students the disorganization occurring due to rapid changes in Indian society.



Course Outcomes: Department of Economics B A. First Year

Name of Course: Micro Economics

- **CO 1:** Student will understand the meaning and scope of the micro economics.
- **CO 2:** They will come to know the concept of Demand and Supply.
- **CO 3:** Students will understand various market structure like perfect competition and monopoly.

Name of Course: Indian Economy

- **CO 1:** Student will understand the structure of Indian Economy.
- **CO 2:** Understanding the problems in Indian Economy and the solutions on the same.
- **CO 3:** Understanding the objectives, structure, achievements and failures of five year plan.

Name of Course: Price Theory

- **CO 1:** Understanding the different market equilibrium of firm and industry.
- **CO 2:** Students will understand the factor finding.
- **CO 3:** Understanding the analysis of cost and revenue.

Name of Course: Money, Banking and Finance

- CO 1: Understanding the meaning and function of money, banking structure in India.
- CO 2: Students will come to know new concepts in the banking like ATM and

E-banking.

CO 3: Understanding the monitory policy of RBI.

Course Outcomes: Department of Economics B A. Second Year

Name of Course: Macro Economics

- **CO 1:** Students will be aware of basic theories in
- **CO 2:** Student will understand the various concept of National income and also know about the majoring the national income.
- **CO 3:** Students understand the theory of trade cycle.

Name of Course: Economics of Development

- **CO 1:** Students will know about the theories of development.
- **CO 2:** Student will understand the various concept of growth model.
- **CO 3:** Students understand the theory of trade cycle.
- **CO 4:** Students understand the role of agriculture industry and service sector in economic development.

Name of Course: Public Finance

- **CO 1:** Students will know about the various concepts in public finance.
- **CO 2:** Student will understand the concept of public revenue and public expenditure.
- **CO 3:** Students understand the budget functioning and types of budget.

Name of Course: Statistical Methods

- **CO 1:** Students will know about the meaning, nature and scope of statistical methods.
- **CO 2:** Student will be able to solve various problems Mean, Mode and Medium.
- **CO 3:** Students will be able to understand and solve the problems in Index Number.
- **CO 4:** To train the students to use the techniques of statistical analysis which are commonly applied to economics problems.

Course Outcomes: Department of Economics B A. Third Year

Name of Course: International Economics

- **CO 1:** Students will understand the theories of trade.
- **CO 2:** Student will understand the importance of trade and gains from trade.
- **CO 3:** Students understand the role of balance of payment in International Economics.
- **CO 4:** To provide 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.

Name of Course: Agricultural Economics

- **CO 1:** Students will know the Importance of Agricultural Economics.
- **CO 2:** Student will understand the various Technologies in Agricultural.
- **CO 3:** Students understand the role of agriculture in Economics Development since Fifty Year.
- **CO 4:** To familiarize students with policy issue that are relevant to Indian agriculture.

Name of Course: History of Economic Thought

- **CO 1:** Students will know the Mercantilism and Physiocracy.
- **CO 2:** Student will understand the various Theories of Classical Thinkers.
- **CO 3:** Students understand the Thought of Marshal.
- **CO 4:** To understand the basic economic ideas of various economic thinker of the world.

Name of Course: Project Work

- **CO 1:** To introduce the students about project writing skills as per the study of researchmethodology technique.
- CO 2: Student will understand the various concepts in Project Work.

Name of Course: Research Methodology

- **CO 1:** Indian economy is less developed economy because of people is not enough research activities.
- CO 2: This paper develops research oriented mind of the students.
- **CO 3:** If student develop its research it gets jobs in research activities right from local to global institutions.
- **CO 4:** To provide information about social sciences research to the students of economics.

Paper-XIV: Industrial Economics

- **CO 1:** It introduces industrial structure of the economy and progress of industrialization.
- **CO 2:** It aware about the scope of new entrepreneur to enter in industrial establishment.
- **CO 3:** To provide knowledge on the basic issues such as concepts an organization of a firm, productivity, efficiency, capacity utilization.

Paper-XV: Indian Economic Thinkers

- **CO1:** The paper introduces about the research and work of Indian economic thinkers.
- **CO 2:** It promotes students to study of them and work for the self as well as economy's development.
- CO 3: To introduce Indian economic thinkers

Paper-XVI: Project Work

- **CO1:** It enhanced the research oriented analytical view of student which is beneficial to get job and start business with the practical study of Economics.
- **CO 2:** To introduce the students about project writing skills as per the study of research methodology technique.

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COURSE OUTCOMES (CO): DEPARTMENT OF POLITICAL SCIENCE

B. A. First Year

Paper-I and III : Basic Concepts in Political Science

- **CO 1:** Students will understand and explain the basic concepts in Political Science.
- **CO 2:** Students will be able to criticize present political system by using the political ideas.
- **CO 3:** Students will know different political system and understand the importance of democracy.

CO 4: Developed the student's personality as a responsible citizen.

Paper-II and IV: Government and Politics of Maharashtra

- **CO 1:** Student will get information about the reformation of state and about Sanyukta Maharashtra Movement.
- **CO 2:** Student will understand the rules, regulations, structure and nature of Maharashtra Government & Political System.
- **CO 3:** Student will understand various constitutional rights and duties of the Citizen of India.
- **CO 4:** Student will understand the structure and system of the Local Self Governance of Maharashtra.
- **CO 5:** Student will get acquainted with the different social, political, peasant, cooperative and feminist movement.

COURSE OUTCOMES (CO): DEPARTMENT OF POLITICAL SCIENCE

B. A. Second Year

Paper-V and VII: Government and Politics of India

- **CO 1:** Student will understand the structure, nature and system of the Government and Politics of India.
- **CO 2:** Student will understand the basic structure and various features of the Indian Constitution.
- **CO 3:** Student will understand various provisions in the Indian constitution abut fundamental rights, duties of the citizens and directive principles of the state policy.
- **CO 4:** Student will become aware of secularism, liberty, fraternity, equality, justice and brotherhood.
- **CO 5:** Student will understand the relation between center and state government in India.

Paper-VI and VIII: International Relations

- **CO 1:** Student will be able to understand and explain the concepts in international politics.
- **CO 2:** The awareness will be created among the students about the changing nature of the international relations.
- **CO 3:** Student will integrate with international current issues and become sensitive and increase his analytical ability.
- **CO 4:** Student will get information about the international and regional organizations and will become aware about the international politics.

CO 5: To introduce international relations among the countries of the world.

COURSE OUTCOMES (CO): DEPARTMENT OF POLITICAL SCIENCE

B. A. Third Year

Paper-IX and XIII:Indian Political Thinkers

- **CO 1:** Student will get the information about the work and thoughts of Indian Political Thinkers.
- **CO 2:** Student will be able to express their thoughts and ideas regarding the contents.
- **CO 3:** Student will get inculcated by the thoughts of political thinkers.
- **CO 4:** To inculcate the concepts, ideas and theories that developed in India.

Paper-X and XIV: Western Political Thinkers

- **CO 1:** Student will understand the contribution in Political Science of the western thinkers.
- **CO 2:** Student will be familiarized with basic concepts generated by the western political thinkers.
- **CO 3:** Student will get inculcated by the thoughts of western political thinkers.
- **CO 4:** Student will compare and contrast between Indian and Western Political Thinkers.
- **CO 5:** To introduce the concepts, ideas and theories that developed in Western countries.

Paper-XI and XV: Political Ideology

- **CO 1:** Student will be able to understand and explain the political ideologies and ideas which are broadly considered as political creeds usually termed "Political Ideology.
- CO 2: Student will compare and contrast between various Political ideologies.
- **CO 3:** Student will understand the different aspects of traditional and contemporary Ideologies.
- **CO 4:** To introduce the role of different political ideologies and their impact in politics.

Paper-XII and XVI: Project Work

- **CO 1:** Students will study at their own by selecting topic related to contemporary Social and political issues.
- **CO 2:** Student will be able to understand the basic concepts of Research Methodology.

- **CO 3:** The awareness will be created among the students about the latest and scientific techniques of research.
- **CO 4:** Student will be able to write a project report in scientific manner.

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COURSE OUTCOMES (CO): DEPARTMENT OF GEOGRAHY

B. A. First Year

Paper-I - Physical Geography

CO 1: Students will know the basic concept in physical geography.

- **CO 2:** Understand earth's tectonic and structural evolution.
- **CO 3:** Gain knowledge about earth's interior and various theories regarding earth.
- **CO 4:** Acquire knowledge about types of folds and faults and earthquakes, volcanoes and rocks classification.

Paper-II : Human Geography

- **CO 1:** Gain knowledge about major themes of human Geography.
- **CO 2:** Acquire knowledge on the history and evolution of humans.
- CO 3: Learn about the various races and racial groups of the world
- **CO 4:** Learn the rural house types, census categories of rural settlements and idea of social segregation.

Paper-IV : Geography of Landforms

- **CO 1:** Understand the functioning of Earth systems in real time and analyze how the natural and anthropogenic operating factors affects the development of landforms.
- **CO 2:** Overview the landform formation process.
- CO 3: Assess the roles of structure, stage and time in shaping the landforms.
- **CO 4:** To acquaint the students with the utility and applications of geomorphology in different area.

Paper-V : Geography of Maharashtra

- **CO 1:** To acquaint students with Geography of our State.
- **CO 2:** To make students aware of the magnitude of problems and prospects in Maharashtra.
- **CO 3:** To help students understand the inter relationship between the subject and the society.
- **CO 4:** To help students understand the recent trends in regional studies.

Paper-III and VI : Practical Geography

- **CO 1:** Students will know how to reduce and enlarge the maps.
- **CO 2:** Students will understand the representation of landforms by contours.
- CO 3: Students will know signs and symbols used in SOI Maps.

CO 4: Students will acquire the Knowledge of Toposheet (SOI Maps) Reading and Interpretation.

COURSE OUTCOMES (CO): DEPARTMENT OF GEOGRAHY

B. A. Second Year

Paper-VII : Climatology

- **CO 1:** Understand the elements of weather and climate and its impacts at different scales.
- **CO 2:** Comprehend the climatic aspects and its bearing on the planet Earth.
- **CO 3:** Learn the interaction between the atmosphere and the earth's surface.
- **CO 4:** Understand the importance of the atmospheric pressure and winds.
- **CO 5:** Analyze the dynamics of the Earth's atmosphere and global climate. assessing the role of man in global climate change.

Paper-VIII : Introduction of GIS

- **CO 1:** Understand various components and principles of GIS.
- **CO 2:** Construct the thematic maps using different digital layers.
- **CO 3:** Apply GIS in various geographical studies.

Paper-XI & XII : Practical Geography

- CO 1: Students will know the various instruments used for the climatic phenomena
- **CO 2:** Students will be able to use climatic data for the Cartographic techniques.
- **CO 3:** Students will achieve the knowledge of Various sign and symbols used in daily weather repos
- **CO 4:** Students will interpret the Indian Daily weather reports.
- **CO 5:** Students will know about the cartography and its importance in the study of Geography.

Paper-X : Oceanography

- **CO 1:** Understand the major concepts in oceanography
- **CO 2:** Describe the ocean bottom floor.
- **CO 3:** Acquire knowledge about temperature and salinity of oceanic water.

CO 4: Understand about ocean currents and marine deposits.

Paper-XI : Geography of Population

- **CO 1:** Learn the role of demography and population studies as a distinct field of human geography
- **CO 2:** Identify and understand the population in terms of their quality and spatial distribution pattern.
- **CO 3:** Comprehend the contemporary issues facing the global community.

COURSE OUTCOMES (CO): DEPARTMENT OF GEOGRAHY

B. A. Third Year

Paper- XI : Physical Geography of India (old pattern)

- **CO 1:** Students will be able to understand land diversities, according to shape, size, physical landscape of India.
- **CO 2:** To understand the drainage systems of India.
- **CO 3:** To acquaint students about various soil types, their distribution and Characteristics present in India.
- **CO 4:** To know the Natural Vegetation, forest types and their Distribution in India.

Paper – XII: Geography of Environment (old pattern)

- **CO 1:** Students will be able to know abiotic and biotic physical factors of ecology.
- **CO 2:** To know the structure of ecosystem, different nutrient cycles energy flow in an ecosystem.
- **CO 3:** To acquaint students about problems of ecosystem like global warming, Deforestation, acid rainfall etc.

Paper –XIII: Industrial Geography of Maharashtra (old pattern)

- **CO 1:** Students will be able to know elements and factors responsible for localization industries in Maharashtra.
- CO 2: To understand Impact of industries on economic development of Maharashtra.
- **CO 3:** Students should know role of globalization in formation of industrial sectors, and industrial policy in Maharashtra.

Paper – XV : Geography of Natural Calamities (old pattern)

- **CO 1:** Students will be able to know different types of calamities such as earthquake, and volcano and it's causes and effect.
- CO 2: Students will understand causes and effects of drought in drought-prone-

areas of India.

CO 3: To know the biological Hazards such as global warming, green House effects, ozone deflation, and pollution.

Paper – XVI: Geography Practical (old pattern)

- CO 1: Students will a understand the different techniques of forest survey.
- **CO 2:** To train the students in different mathematical principal employed in forest survey.

Paper – XVII: Biogeography (old pattern)

- **CO 1:** To understand the habitat and plant animal association and their biome types.
- CO 2: To know Distribution of forests, successions in newly formed landforms.
- CO 3: To acquaint students about National Forest Policy of India.

Paper –XVIII: Geography Practical (old pattern)

- **CO 1:** Students should understand basic principle of survey.
- **CO 2:** Students will learn the practical applicability of Statistical Geography.

Paper – XIX: Project Work

- **CO 1:** Students will know the application of knowledge in studying geography.
- **CO 2:** Students will understand the different environmental cross cutting issues which needs urgent attention.

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COURSE OUTCOMES (CO): Thoughts of Mahatma Phule and Dr. Babasaheb Ambedkar B. A. First Year

Paper – I: Mahatma Phule and his Works

- CO 1: To give information to the students about Mahatma Phule and his work.
- **CO 2:** To understand the impact of the British rule and Western Thought on Mahatma Phule.
- **CO 3:** To give knowledge of Phule's Ideas & his work and inform to the students about the Past Period and Indian Philosophy.

Paper – II: Dr. Babasaheb Ambedkar and his Works

- CO 1: To inform the students about Dr. B.R. Ambedkar and his works.
- **CO 2:** To inform the students about the impact of Various ideas on Dr. B. R. Ambedkar on Indian society.
- **CO 3:** To give the information to the student about various movement of Dr. B.R. Ambedkar.

Paper – III: Mahatma Phule's Thoughts on Agriculture

- **CO 1:** To inform the Students about the thoughts of Phule's on Agriculture.
- CO 2: To acquaint student about the ideas of Phule's for the Farmer's empowerment.
- CO 3: To provide stimulation to the students to bring development in Agriculture

Paper – IV: Educational Thoughts of Dr. Babasaheb Ambedkar

- **CO 1:** To acquaint students about B. R. Ambedkar's Education policy.
- **CO 2:** To stimulate students about study of ideas of Ambedkar and his Policy.

COURSE OUTCOMES (CO): Thoughts of Mahatma Phule and Dr. Babasaheb Ambedkar B. A. Second Year

Paper – V: Social Thoughts of Mahatma Phule

- **CO 1:** To provide information to students about the social condition of 19th century.
- CO 2: The students will also be known about Mahatma Phule and his social ideas.
- **CO 3:** To study the alternative structure for society which is given by Phule.

Paper – VI: Social Thoughts of Dr. B.R Ambedkar.

- **CO 1:** To inform students about Dr. B.R. Ambedkar's conceptualframework of caste and his thoughts of sociological theory Caste, Class, Politics and Casteism.
- **CO 2:** Students will come know about Dr. B.R. Ambedkar's approach to Social Values and Institutions of Social and Religious.

Paper – VII: Religious Ideas of Mahatma Phule.

- **CO 1:** Students will know about the changes which were taken place in Maharashtra in 19" century.
- CO 2: To provide knowledge regarding customs, traditions and various religion.
- **CO 3:** To orient student's about folk vision on religion.
- **CO 4:** To analytically orient student to understand Phule'S attempt to create counter culture/religion.

Paper – VIII: Dr. B. R. Ambedkar and Untouchability

- **CO 1:** To provides Dr. Ambedkar's ideas regarding untouchability as a curse for Indian development.
- **CO 2:** To study economic social and political development untouchability.
- **CO 3:** To know the reasons attributed untouchability as stated by Dr. Ambedkar.

COURSE OUTCOMES (CO): Thoughts of Mahatma Phule and Dr. Babasaheb Ambedkar B. A. Third Year

Paper – IX: Mahatma Phule's views on Economic Exploitation

- **CO 1:** To acquaint students about the religious conditions and exploitation of in the name of religion in 19" century in Maharashtra.
- **CO 2:** To study Phule's views regarding economy exploitation occurred due social structure during 19th century.

Paper – X: Political Ideas of Dr. B. R. Ambedkar

- **CO 1:** To orient students about Dr. B.R. Ambedkar's ideas related to the political conditions of shudras.
- **CO 2:** To study of Dr. B.R. Ambedkar's ideas on the democracy, Nationalism, Communalism etc.
- CO 3: To inculcate Dr. B.R. Ambedkar's views on political upliftment of shudras.

Paper – XI: Whipcord of Farmers

- **CO 1:** To understand social and economic condition of farmer since ancient time.
- **CO 2:** Students will learn about causes of deteriorating condition of farmers.

Paper – XII: The Annihilation of Cast

- CO 1: To knowledge about the worse condition of the social structure
- **CO 2:** To acquaint students about scientific views which are expressed by Dr. B. R. Ambedkar for social and economic development of lower cast people.
- **CO 3:** To study the path provided by Dr. Ambekar to eradicate evil of caste system in India.

Paper – XIII: Economic ideas of Mahatma Phule

- CO 1: Students study the economic changes which were taken place in colonial period.
- **CO 2:** To study views expressed by Phule on economic development of people which are placed at the base of social ladder.
- **CO 3:** To study the new model of economic development for downtrodden people of society.

Paper – XIV: Public Welfare Ideas of Dr. B. R. Ambedkar

- CO 1: To acquaint students about views of Dr. B. R. Ambedkar's on Public Welfare.
- **CO 2:** To study the social model provided by Dr. B. R. Ambedkar for consistent public Welfare.

Paper – XV: Mahatma Phule's 'Third Diamonds'

- **CO 1:** To know the new ideas which are spread by Phule through this play.
- **CO 2:** Help to students to know about ill tradition and its worse effects.

Paper – XVI: Who were the Shudras?

- **CO 1:** To give information about past history of shudras that led to their social exploitation.
- **CO 2:** To know the social structure of ancient India.
- **CO 3:** To inform students about the so called religious base for justification of social and economic lower status of shudras.

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Course Outcomes: Department of Chemistry

B. Sc. First Year

Name of Course : Paper I- Inorganic Chemistry

- **CO1:** Students will able to understand structure of atoms, various atomic properties like ionization potential, atomic size, electron affinity, electro negativity etc. in the groups across the periods.
- **CO2:** S-block and P-block elements in the periodic table.

Name of Course: Paper II Organic Chemistry

- **CO1**: Students will able to understand, general and basic ideas associated to structure, bonding, stereochemistry and reactivity of organic molecules.
- CO2: Fundamental of mechanism of organic reactions.
- **CO3:** General idea and chemical reactivity of alkane, alkenes and alkyl and aryl halides.
- **CO4:** Aromaticity and electrophilic reactions of benzene.

Name of Course: Paper II Organic Chemistry

- **CO1:** Students understand mathematical parameters like logarithm, derivative, integration, probability, graph representation.
- **CO2:** Understanding the surface phenomenon's like Adsorption, mechanism of adsorption, factors affecting adsorption, difference between adsorption and absorption, types of adsorption, it's importants etc.
- **CO3:** Deduction of Gas Laws: Boyles Law, Charles Law, Grahams Law of diffusion, Avogadro's hypothesis, deviation from ideal behavior, Van der waals equation of state.
- **CO4:** Difference between solids, liquids and gases state. Classification, Structure of nematic and cholestric phases.
- **CO5:** Understanding laws of crystallography and X- ray diffraction by crystals, derivation of Bragg equation.
- **CO6:** Definition of colloids, classification, properties and applications of colloids.

Name of Course: Paper IV Physical Chemistry

- **CO1:** Students understand mathematical parameters like logarithm, derivative, integration, Probability, graph representation.
- **CO2:** Understanding the surface phenomenon's like Adsorption, mechanism of adsorption, factors affecting adsorption, difference between adsorption and absorption, types of adsorption, it's important etc.
- **CO3:** Deduction of Gas Laws: Boyles Law, Charles Law, Grahams Law of diffusion, Avogadro's hypothesis, deviation from ideal behavior, Van der waals equation of state.
- **CO4:** Types of catalyst and order of reaction.
- **CO5:** Difference between solids, liquids and gases state. Classification, Structure of nematic and cholesterol phases.

Name of Course: Paper V Inorganic Chemistry

- **CO1:** Students will able to understand chemistry of noble gases, meaning of ionic and covalent bonds, formation of covalent and ionic bonds, VSEPR theory, hydrogen bonding, MO theory
- **CO2:** Basic concepts in nuclear chemistry and theory of volumetric analysis.

Name of Course: Paper III & VI Lab Course

- **CO1:** Acquaintance with glassware, handling of chemicals, safety measures, laboratory protocol.
- **CO2:** Preparation of solution and it's standardization.
- **CO3:** Understanding of determination of equivalent weight of Mg and rate of reaction, Viscosity, Surface tension of liquid. Verification of Lambert-beer's law.
- **CO4:** Estimation of organic compounds, qualitative and quantitative analysis.
- **CO5:** Inorganic qualitative analysis.

Course Outcomes: Department of Chemistry

B. Sc. Second Year

Name of Course: Paper VII Organic Chemistry

- **CO1:** Students will able to understand synthesis of alcohols, reactions of ethylene glycol and glycerol, Preparation and electrophilic aromatic substitution reactions of phenol.
- CO2: Name reactions exhibited by aldehydes and ketones with mechanism.
- **CO3:** Synthesis and chemical reactions of carboxylic acids, decarboxylation of malic.
- **CO4:** Tartaric and Citric acids, Reactions of compounds of nitrogen.

Name of Course: Paper VIII Physical Chemistry

- **CO1:** Understanding terms: System, Surrounding, Types of system, intensive and extensive properties.
- **CO2:** Thermodynamic Process, reversible and irreversible process, concept of maximum work(W_{max}).
- **CO3:** Law of Thermodynamics: Statement, Definition of internal energy and enthalpy. Heat capacity, heat capacities at constant volume pressure and their relationship.
- **CO4:** Calculation of W, q, du and dH for the expansion of ideal gases under isothermal and adiabatic condition for reversible.

Name of Course: Paper X Inorganic Chemistry1

- **CO1:** Students will able to understand, Features, electronic configuration and general properties of first transition series elements like colour, oxidation state etc.
- **CO2:** Werner's co-ordination theory, nomenclature of coordinate compounds, formation of complexes based on VBT.
- **CO3:** Chemistry of Lanthanides and actinides.
- CO4: Theories of acids and bases.

Name of Course: Paper XI Physical Chemistry

- **CO1:** Types of Conductance, variation of equivalent and specific conductance with dilution.
- CO2: Kohlrausch's law, Ostwald's dilution law.
- **CO3:** Transport Number: Definition, Determination by Hittorfs method and moving boundary method, Types of Titration.
- **CO4:** Types of Reversible Electrodes, NernstEquation, Types of electrode, ElectroChemical Series and it's significance.
- CO5: Buffer-Acidic and Basic Buffers, Mechanism of Buffer Action. Types of corrosion.

Name of Course: Paper IX & XII Lab Course

- **CO1:** Study the Gravimetric Estimation of Zn, Mn, Ni, Ba and Al.
- **CO2:** Understanding the Complexometric.
- **CO3:** Titration of Zn, Ni, Cu and Pb by using indicator.
- **CO4:** To study the instruments of conductometer, pH-meter, colorimeter, Polarimeter and refractive meter.
- **CO5:** To prepare Organic Derivatives likeAcetyl, Benzoyl, Hydrolysis, Bromo, Reduction and Osazone derivatives.

Course Outcomes: Department of Chemistry

B. Sc. Third Year

Name of Course: Paper XIII Physical Chemistry

CO1: Study Black body radiation, Planck's radiation law, Photoelectric effect, Compton effect, De Broglie Hypothesis.

- **CO2:** Heisenberg's uncertainty principles, Harmiltonian operator, Schrodinger wave equation and its importance.
- **CO3:** Understanding the concept : Electromagnetic radiation, regions of the spectrum, basic features of different spectrometers, statement of the BornOppenheimer approximation, Rotational spectrum and numerical problems.
- **CO4:** Study laws of photochemistry, GrothusDrapper law, Stark-Einstein law, Jablonsiki diagram. Quantum yield and it's types. Understanding the Nano-materials and synthesis methods.

Name of Course: Paper XIV Organic Chemistry

- **CO1:** Detailed study of NMR spectroscopy, Structure determination of organic compounds using NMR, IR and UV techniques.
- **CO2:** Chemical reactions of organometallic compounds like G.R., organozinc and organolithium compounds.
- **CO3:** Synthetic applications of active methylene groups: ethyl acetoacetate and diethyl malonate.
- **CO4:** Chemistry of fats, oils and detergents.

Name of Course: Paper XVI Inorganic Chemistry

- **CO1:** Students will able to understand: Crystal field theory and it's basic concepts, splitting of d-orbitals in octahedral, tetrahedral and square planar complexes, factors affecting CFT.
- **CO2:** Types of electronic transitions, Selection rules for d-d transition, energy level diagrams.
- **CO3:** Nomenclature and classification of organ metallic compounds, preparationand properties.
- **CO4:** Essential and trace elements in biological processes, biological role of Na+ and K+ nitrogen fixation.
- **CO5:** Classification of chromatographic techniques, ascending, descending Techniques, TLC application.

Name of Course: Paper XVII Organic Chemistry

- **CO1:** Synthesis of heterocyclic compounds, electrophillic and nucleophillic reactions of heterocyclic compounds. Comparison of basicity of pyridine, pipyridine and pyrrole.
- **CO2:** Introduction and classification of carbohydrates, open and ring structure of glucose, mechanism of mutarotation and polysaccharides.CO3: Classification and

synthesis of synthetic polymers, properties of polymers, introduction to synthetic rubber and it's uses.

CO3: Color and constitution of dyes, synthesis of dyes, classification, synthesis of drugs, properties of ideal drug.

Name of Course: Paper XV & XVIII Lab Course

- **CO1:** Semi-micro qualitative analysis, organic and inorganic quantitative analysis.
- **CO2:** Separation of Ca and Ni from binary mix. and estimation of Ni gravimetrically.

CO3: Estimation of Cl in given sample of bleaching powder.

CO4: Estimation of Vit. C, ascorbic acid, carbonyl group.

CO5: Organic preparation and it's purity by TLC.

Course Outcomes: Department of Chemistry

Course Outcome (CO) for M. Sc. I

Name of Course: Analytical Chemistry I

- **CO 1:** To Understand basic concepts of analytical techniques used in detection.
- **CO 2:** To Learn solvents distillation techniques to purify organic solvents.
- **CO 3:** To Understand organic purification techniques such as Thin- Layer chromatography, Partition Chromatography, Column chromatography, Ion-Exchange Chromatography.
- **CO 4:** To learn advanced purification and detection techniques such as gas chromatography and HPLC.

Name of Course: Inorganic Chemistry I

- **CO 1:** Students will be able to identify the many kinds of chemical bonds that exist in inorganic compounds.
- **CO 2:** To recognize the characteristics of pi acid ligands and how they interact with metal ligand complexes.
- **CO 3:** Learn about the structural characteristics and thermodynamic effects of partially filled shells.
- **CO 4:** Learn about the spectrum characteristics of inorganic complexes, such as the types of spectra and selection criteria.
- **CO 5:** Understanding the biochemistry of metals like iron.

Name of Course: Organic Chemistry I

CO 1: Completely understand the role of reaction intermediates in organic processes.

- **CO 2:** Recognize the type of bonding present in organic molecules.
- CO 3: Understanding aromatic, non-aromatic, and anti-aromatic substances
- **CO 4:** Learn about the many methods utilized to ascertain the reaction mechanism.
- **CO 5:** Recognize the many kinds and workings of organic chemistry elimination processes.

Name of Course: Physical Chemistry I

- **CO 1:** Understanding the generalized forces and coordinates, work, and thermodynamic potentials as well as the rules of thermodynamics.
- **CO 2:** Understanding of the significance and function of thermodynamic system descriptions.
- **CO 3:** To study statistical thermodynamics techniques, comprehension of the terms temperature, chemical potential, phase space, and phase integral.
- **CO 4:** Examining numerous phenomena involving ion-solvent interactions and ion-ion interactions using the Debye-Huckel theory.

Name of Course: Research Methodology

- **CO 1:** Understand the basic concepts of research methodology
- **CO 2:** Know recent trends in chemical research.
- CO 3: Acquire the fundamental knowledge of various characterization techniques.
- **CO 4:** Apply of characterization tecifi; iques viz.; XRD, SEM, TEM, UV,]li,v NMR and mass spectrometry in research

Name of Course: Inorganic Chemistry-2

- **CO 1:** To understand how to perform symmetry operation to chemical molecules.
- **CO 2:** To identify the symmetry element based on structure of molecules.
- **CO 3:** To apply the knowledge of concept of symmetry element and operations and centre, axis and planes symmetries possessed by an object / orbitals / molecule.
- **CO 4:** To identify & classify of point group of molecules.
- **CO 5:** To apply knowledge of group theory to understand properties of molccules, character of matrix, product of symmetry operations, reducible and irreducible representations.

Name of Course: Organic Chemistry-2

- **CO 1:** Understand the concept of stereochemistry.
- **CO 2:** Know the stereochemical notations.
- **CO 3:** Know the difference between stereospecific and stereoselective reactions.
- **CO 4:** Study the stereochemistry of some Chiral molecules like Biphenyls, allenes and spiranes.

CO 5: Acquire the knowledge of various methods of resolution.

Name of Course: Paper I Analytical Chemistry I (Lab Course)

- **CO 1:** To understand the difference between qualitative and quanfitfltive analy:
- **CO 2:** To understand the concept of qualitative and quantitative chemical anul'y'sis and the chemical reactions and constituents .
- **CO 3:** To understand the dssigx { and development of experimental setup and procedure, for volumetric and gravimetric analysis of chemical compound.
- **CO 4:** To understand importance of accuracy and precision in measurement of chemical analysis

Course Name: Inorganic Chemistry Laboratory Course-1

- CO 1: To understand the difference between qualitative and quantitative analysis
- **CO 2:** To understand the concept of qualitative and quantitative chemical analysis and their chemical reactions and constituents .
- **CO 3:** To understand the design and development of experimental setup and procedure, for volumetric and gravimetric analysis of chemical compound.
- **CO 4:** To identify the constituents of chemicals qualitatively and quantitatively.
- **CO 5:** To understand importance of accuracy and precision in measurement of chemical analysis.

Course Name: Organic Chemistry Laboratory Course-1

- CO 1: Understand the separation and purification techniques
- CO 2: Understand various step involved in identification of organic compounds
- **CO 3:** Understand the handling of equipment required for the analysis of organic compounds.
- **CO 4:** Understand the stichometry of the reaction
- **CO 5:** To check the purity of compound using TLC

Course Name: Physical Chemistry Laboratory Course-1

- **CO 1:** To analyze sample by various instrumental techniques.
- **CO 2:** To handling of electronic equipment.
- CO 3: To understand laboratory skills, precaution, accuracy and precision.
- **CO 4:** To design experimental procedure for analysis important chemicals & samples.
- **CO 5:** To understand the physical properties of chemicals.

Course Outcomes: Department of Chemistry

Course Outcome (CO) for M. Sc. II

Course Name: Analytical Chemistry-3

- **CO 1:** To understand basic principle of different chromatographic Techniques for separation of constituents of mixtures -
- **CO 2:** To understand theory, instrumentation, working procedure and application as well as limitation of TLC |
- **CO 3:** To understand theory, instrumentation, working procedure and application as well as limitations of liquid- liquid partition chromatography.
- **CO 4:** To understand theory, instrumentation, working procedure and application as well as limitations of column chromatograph.
- **CO 5:** To understand theory, instrumentation, working procedure and application as well as limitations of gel pearmeation chromatography.

Course Name: Inorganic Chemistry-3

- **CO 1:** To define and classify metal carbonyls
- CO 2: To design procedure to synthesize mononuclear and binuclear metal carbonyl
- CO 3: To understand the properties and structure metal carbonyl.
- **CO 4:** To apply the concept of effective atomic number for prediction of stability of metal carbonyls.

Course Name: Organic Chemistry-3

- **CO 1:** Understand various reactions involved in addition to C-C and C-O double bond
- **CO 2:** Acquire the stereochemical aspects in addition reaction.
- **CO 3:** Demonstrate/apply the concepts involved in elimination reaction.
- **CO 4:** Understand mechanism of various named reactions.

Course Name: Physical Chemistry-3

- **CO 1:** To understand the fundamental principles of quantum mechanics.
- **CO 2:** To solve the Schrodinger equations calculate wave function and energy levels.
- **CO 3:** To understand the postulates of quantum mechanics.
- **CO 4:** To understand the Huckel Molecular Theory of conjugated system and its applications.

Course Name: Inorganic Chemistry-4

- **CO 1:** To describe the generation of spectroscopic term symbols , ground state term & total term symbols, significance of spin multiplicities.
- CO 2: To use of microstates for representation electron representations
- **CO 3:** To sketch term energy level diagram.
- **CO 4:** To understand the designation of spin multiplicities to ligand field excited states of high and low spin complex.
- **CO 5:** To interpret A,E, T symmetric label for electronic configurations.

Course Name: Organic Chemistry-4

- CO 6: Understand aromatic electrophilic substitution reactions
- CO 7: Acquire the knowledge of directing nature of functional groups
- CO 8: Know directing nature of attacking electrophiles on various aromatics
- **CO 9:** Understand requirement for aromatic nucleophilic substitution reactions
- **CO 10:** Describe the basic concepts in molecular rearrangement

Course Name: Field Project

CO 1: Get experiential learning while field work

Course Name: Inorganic Chemistry Laboratory Course

- **CO 2:** Design experimental procedure for synthesis of metal complexes , calculation of compounds conversion factors and characterization of synthesized coordination complexes.
- CO 3: To understand, which skills are required in chemical laboratory.
- **CO 4:** To understand importance of accuracy and precision in chemical analysis.
- **CO 5:** To design the experimental procedure for separation and estimation of metals from mixture solution.

Course Name: Organic Chemistry Laboratory Course

- **CO 1:** To Perform/demonstrate the techniques involved in organic binary mixture. separation specially solid- liquid mixture.
- **CO 2:** To perform distillation techniques for purification of organic compounds.
- **CO 3:** To use/ apply the technique of separation, crystallization derivatization and function group detection.
- **CO 4:** To use the methods for the preparation of useful compounds using named reaction.

Course Name: Physical Chemistry Laboratory Course

- **CO 1:** On completion of this course, the students will be able:
- CO 2: To analyse sample by various instrumental technique
- **CO 3:** To handling of electronic equipment.
- CO 4: To understand laboratory skills, precaution, accuracy and precision.





Course Outcomes: Department of Physics

B. Sc. First Year

Name of Course: Mechanics, Properties of Matter and Sound

- **CO1:** Understand the concepts of mechanics, acoustics and the properties of matter.
- **CO2:** Understand the basic ideas of elasticity.
- **CO3:** Understand and apply the basic concepts of viscosity and surface tension to Physical systems.
- **CO4:** Understand application of acoustics in noise and music, musical scale, sonar and ultrasonic.

Name of Course: Heat and Thermodynamics

- **CO1:** Understand and analyze the basic concepts of thermal conductivity
- CO2: Understand concepts of Real gases and Transport phenomenon.
- **CO3:** Understand the thermodynamics processes and Heat engine.

CO4: Understand the basic ideas of entropy, and second law of thermodynamics and its applications.

Name of Course: Practical

CO1: A working knowledge of fundamental physics and basic mechanics principles. CO2: The ability to identify, formulates, and solve physics problems.CO3: The ability to formulate, conduct, analyzes and interprets experiments inphysics.

Name of Course: Optics

CO1: Acquire the basic concept of optics and its applications.

- **CO2:** Explain how image formation takes place in lenses.
- **CO3:** Understand the operations of many modern optical devices.
- **CO4:** Understand the optical phenomenon such as interference and diffraction.

Name of Course: Electricity and Magnetism

CO1: Develop an understanding on the concepts of Electricity and magnetism.

- **CO2:** To understand the knowledge of various mathematical operations required for electrostatics and magnetostatics.
- CO3: Explain the fundamental concepts and operations of vector analysis.
- **CO4:** To increase the ability to perform calculations of various mathematical expressions and laws.
- **CO5:** To develop ability among the students to identify, remember and grasp the meanings, definitions and laws of electricity and magnetism.

Course Outcomes: Department of Physics

B. Sc. Second Year

Name of Course: Mathematical, Statistical Physics and Relativity

- **CO1:** Understand differential equations i.e. ordinary differential equations with constant coefficients, first order ODE's with variable coefficients, second order ODE's partial differential equation.
- **CO2:** Understand the basic principles of statistical physics, classical statistics and its applications.
- **CO3:** Understand the basic principles of quantum statistics and its application.
- **CO4:** Understand the fundamental ideas of Special relativity.

Name of Course: Modern and Nuclear Physics

- **CO1:** Understand the basic concepts of photo electric effect and their applications in daily life
- **CO2:** Understand the basic concepts of X-ray and their applications in research and industry
- CO3: Understand the basic aspects of nuclear Physics.
- **CO4:** Describe the principle and working of particle accelerators

Name of Course: Practical

- **CO1:** A working knowledge of fundamental physics and basic mechanics principles.
- **CO2:** The ability to identify, formulates, and solve physics problems.
- CO3: The ability to formulate, conduct, analyzes and interprets experiments in physics.

CO4: The ability to use modern physics techniques and tools, including mathematical techniques, graphs and laboratory instrumentation.

Name of Course: General Electronics

- **CO1:** Apply and illustrate the principles of semiconductor diode and transistor.
- **CO2:** Understand the working and designing of transistor biasing and Op Amp and its applications.
- **CO3:** Understand the basic operation Oscillators and Multivibrators.

Name of Course : Solid State Physics

CO1: Understand the basic aspects of crystallography in solid state physics.

CO2: Understand the basic ideas of bonding in materials.

CO3: Understand the basic concepts of thermal properties of solids.

CO4: Understand the basics of Transport properties.

Name of Course: Practical

CO1: A working knowledge of fundamental physics and basic mechanics principles

CO2: The ability to identify, formulates, and solve physics problems.

- CO3: The ability to formulate, conduct, analyzes and interprets experiments in physics.
- **CO4:** The ability to use modern physics techniques and tools, including mathematical techniques, graphs and laboratory instrumentation.

Name of Course: Practical

CO1: A working knowledge of fundamental physics and basic mechanics principles.

CO2: The ability to identify, formulates, and solve physics problems.

CO3: The ability to formulate, conduct, analyzes and interprets experiments in physics.

Name of Course: Classical and Quantum Mechanics

- **CO1:** Understand the mechanics of system of particles.
- CO2: To study Origin of Quantum Mechanics.
- **CO3:** Learn more about Physical interpretation of wave function.
- **CO4:** Outline the basic Schrodinger's equation in spherical polar co-ordinate system, Compare the different Operators in Quantum Mechanics.

Name of Course: Electrodynamics

CO1: Understand the basic concepts of electrostatics.

CO2: Understand the time varying fields PSO1 U C

CO3: Understand and analyze the properties of electromagnetic waves.

CO4: Understand the mechanism of Interaction of Electromagnetic waves in matter.

Name of Course: Practical

- **CO1:** A working knowledge of fundamental physics and basic mechanics principles.
- **CO2:** The ability to identify, formulates, and solve physics problems.
- CO3: The ability to formulate, conduct, analyzes and interprets experiments in physics.
- **CO4:** The ability to use modern physics techniques and tools, including mathematical techniques, graphs and laboratory instrumentation.

Name of Course: Atomic, Molecular Physics and LASER

- **CO1:** Understand the basic of atomic model.
- CO2: Understand many electron atoms and interaction of spins i.e. LS and J.J. coupling
- **CO3:** Understand rotational, vibrational, electronic and Raman spectra of molecules and their applications.

Name of Course: Non-conventional energy sources and Optical fiber

- **CO1:** Understand the need of energy conversion and the various methods of energy storage.
- **CO2:** Explain the field applications of solar energy.
- **CO3:** Demonstrate an understanding of optical fiber communication link, structure, propagation and transmission properties of an optical fiber.
- **CO4:** To understand the construction and characteristics of optical fiber cable.

Name of Course : Practical

CO1: A working knowledge of fundamental physics and basic mechanics principles.

CO2: The ability to identify, formulates, and solve physics problems.

CO3: The ability to formulate, conduct, analyzes and interprets experiments in physics.

CO4: The ability to use modern physics techniques and tools, including mathematical techniques, graphs and laboratory instrumentation.

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Course Outcomes: Department of Zoology B. Sc. First Year

Name of Course: Protozoa to Annelida

- **CO1:** Came to knowing the basic concept ofbiosystematics and procedure in taxonomy.
- **CO2:** Identified the taxonomic status of the entirenon-chordates up to annelids and discuss the evolutionary model of the group.
- CO3: Described the general biology of fewselected non-chordates useful to mankind.
- **CO4:** Know about some of the important and common protozoans, helminthes of parasitic nature causing diseases in human beings.

Name of Course: Cell biology Course Code

- **CO1:** Understood the structure of cells and cell organelles in relation to the functional aspectsand understanding of the working principle sand applications of microscopes.
- CO2: Described the composition of prokaryotic and eukaryotic cells.
- **CO3:** Understood the structure and functions of chromosome; mitotic and meiotic cell divisions and their significance.
- **CO4:** Understood the properties and treatment of cancer cells.
- **CO5:** Acquired knowledge of principles and working mechanisms of microscopes.

Name of Course: Arthropoda to Protochordata

CO1: Understood the importance of metamerism in annelids.

CO2: Understood the diversity and classification and functional aspects of different systems of phylum Arthropoda, Mollusca and Echinodermata.

Name of Course: Genetics I

- **CO1:** Understood the theories of classical genetic sand blood group inheritance in man.
- **CO2:** Described the genetic variation through linkage and crossing over, chromosomal aberrations and sex determination.
- **CO3:** Understood the genetic defects and in born errors of metabolism and genetic counselling and role of inbreeding and out breeding.
- **CO4:** Understood the molecular structure of genetic materials and understood the mechanism of gene expression and regulation character formation.

Course Outcomes: Department of Zoology B. Sc. Second Year

Name of Course: Vertebrate Zoology

- **CO1:** Identified the taxonomic status of the entire chordates and discussed the evolutionary model of the group.
- **CO2:** Imparted the knowledge on ecology of some important fishes, amphibians reptiles, birds and mammals.
- CO3: Impart knowledge in comparative anatomy and development systems of chordates.
- CO4: Make able to discuss some and very important phenomena in Chordates.

Name of Course: Genetics II

- **CO1:** To study the structure of nucleic acids.**CO2:** To understand the gene expression and regulation in Prokaryotes & Eukaryotes.
- **CO3:** To gain better knowledge in both Prokaryotes & Eukaryotes about the Gene Mutation, Repair Mechanisms, Nuclear Genome Organization, Genes and gene numbers.
- CO4: Comprehensive and detailed analysis offline structure of the gene.
- **CO5:** Analyze the role of transposable elements in prokaryotes and eukaryotes.
- **CO6:** Insight into the manipulation of genetic material for a wide variety.

Name of Course: Animal physiology

- CO1: Students gain fundamental knowledge of animal physiology
- **CO2:** Students will gain skill to execute the roles of a biology teacher or medical lab technicians with training as they have basic fundamentals
- **CO3:** Students are taught the detailed concepts of digestion respiration excretion the functioning of nerves and muscles.
- **CO4:** Understood about the composition of food and mechanism of digestion absorption and assimilation.
- **CO5:** Attained knowledge of respiration and excretion and understood the mechanism of transport of gages and urine formation.

Name of Course: Biochemistry & Endocrinology

- **CO1:** This paper gives an idea about the glands which works inside the body and secretes a chemical called hormone.
- **CO2:** Comprehended the energy source, chemical bonds and the principles of thermo dynamics.
- **CO3:** Understood the importance of acid base balance.
- **CO4:** Attained the knowledge of macromolecule such as carbohydrates, protein and fat, their types and significance.
- **CO5:** Understood the knowledge of cholesterol and its biological significance.

Course Outcomes: Department of Zoology B. Sc. Third Year

Name of Course : Ecology

CO1: Learn basic concepts.
CO2: Learn Auto Ecology and Population Ecology.
CO3: Learn Dynamics of Population.
CO4: Learn Ecology of Communities.
CO5: Learn Functional and Structural Features of Communities

Name of Course: Parasitology and Helminthes I

- **CO1:** Describe the common parasitic disease sand life-threatening conditions caused by helminths and protozoa as regard to theology and life cycle of parasites of medical importance.
- **CO2:** Describe the common diseases caused by helminths and protozoa as regards pathogenesis, clinical features, differential diagnosis and complications.
- **CO3:** Point out the methods of recovery of parasites and their culture methods as well as immunological and molecular methods used for diagnosis of parasitic infections.

Name of Course: Evolution

- **CO1:** Define Geological Time Scale and describe zoogeographical Realms.
- **CO2:** Describe the barriers, dispersals and their impact on animal Distribution.
- **CO3:** Describe the adaptive features of both primary and secondary aquatic vertebrates.
- **CO4:** Describe the adaptive features of desert reptile and mammals.
- **CO5:** Write down the Chemical basis of origin of life and experiments for supporting that idea.

Name of Course: Parasitology and Helminthes II

- **CO1:** Identify, describe and contrast unicellular parasites and parasitic worms Utilise.
- **CO2:** knowledge in the application of parasite control and treatment methodologies
- **CO3:** Describe specific human and non-human parasitic diseases.
- **CO4:** observe live parasitic specimens.

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PRINCIPAL Venkatesh Mahajan Senior College, Osmanabad 413501

Course Outcomes: Department of Botany B. Sc. First Year

Name of Course: I Diversity of Cryptogams - 1

- **CO1:** The students will be able to understand the Structure and reproduction of certain selected algae, fungi.
- **CO2:** Learn about the importance of the plant diversity.
- CO3: Student will know the economic values of this lower group of plant community.

Name of Course: Morphology of Angiosperms

CO1: The Students will understand various Angiosperm plant habits.

- CO2: Learn about vegetative and reproductive structural features of Angiosperms.
- **CO3:** Understand various modifications and its purpose in plant parts.

Name of Course : Diversity of Cryptogams- II

- **CO1:** The students will learn about the structure and reproduction of certain selected species of and bryophytes, pteridophytes and Gymnosperms.
- **CO2:** Learn few representatives of fossil forms.

Name of Course: Histology, Anatomy and Embryology

- **CO1:** The students will learn about the basic concepts in anatomy.
- **CO2:** Understand the various components of stem and wood during its secondary growth.
- **CO3:** Be enlightened about the mechanism of Pollination and basic structure of the embryo.

Name of Course: Taxonomy of Angiosperms

CO1: Comprehend the concepts of plant taxonomy.

CO2: Learn about various Angiosperm families and its economic value.

Name of Course: Plant Ecology

- **CO1:** The students will understand the basic concepts of general geology, ecology and phytogeography.
- **CO2:** Learn about the analyze and basic principles of Ecology.
- **CO3:** Understand the importance of ecology and Conservation.

Name of Course: Gymnosperms and Utilization of plants

CO1: Know the characters of Gymnosperms.

- **CO2:** The students will understand the use of the plant resources to produce valuable products.
- **CO3:** Be enlightened about the opportunities for income and employment generation.
- **CO4:** Be able to develop the ability to think and create useful plant products.

Name of Course: Plant Physiology

- **CO1:** The Students will learn about absorption, translocation and utilization of water and other minerals.
- CO2: Comprehend the changes during growth process (germination to abscission).
- **CO3**: Understand the energy flow and various metabolic cycles with their integration.
- **CO4**: Get an overall perception about various physiological processes occurring in plants.

Course Outcomes: Department of Botany B. Third Year

Name of Course : Cell Biology and Molecular Biology

CO1: The students will be able to learn about then basics of cell and its inclusions.

- **CO2:** By the end of this course students will be able to understand the structure of cells in relation to the functional aspects.
- CO3: To understand the difference between prokaryotic and eukaryotic cells.

Name of Course : Biotechnology

CO1: Know the techniques in plant biotechnologies.

CO2: Understand the scope and importance of plant biotechnologies.

CO3: Know the control measures of plant diseases.

Name of Course: Genetics and Biotechnology

- **CO1:** Understand the basic concepts of mendelian genetics, its variations and applications.
- **CO2:** Have a basic understanding of the plant genetic transformation methods.
- **CO3:** The students will understand the basic Concepts of genome organization in plants.
- **CO4:** Be fully aware of the basics and applications of plant biotechnology.

Name of Course: Bioinformatics

- CO1: The students will get an understanding about the diversity of plants
- CO2: They will learn the potentialities of Bioinformatics for human welfare.
- **CO3:** They will be enlightened about the role of Bioinformatics in restoration of forest vegetation ecological balancing of nature.

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Course Outcomes: Department of Mathematics B. Sc. First Year

Name of Course: Differential Calculus

- **CO1:** Understand the geometrical interpretation of derivative of a function.
- **CO2:** Find the derivatives of hyperbolic functions and implicit functions.
- **CO3:** Find the nth derivative of standard functions and solve problems on the same.
- **CO4:** Find the value of nth derivative at a particular point.
- CO5: State and prove mean value theorems.

Name of Course: Differential Equations

- **CO1:** Find the order and degree of a differential equation and recognize the difference between general, particular and singular solutions.
- **CO2:** Identify the exact differential equation.
- **CO3:** Apply various methods to solve a linear differential equations with constant coefficients.
- **CO4:** Reduce the linear differential equations with variable coefficients to linear differential equations with constant coefficients and solve it.

Name of Course: Integral Calculus

- **CO1:** Understand the meaning of integration as a limit of a sum.
- **CO2:** Derive reduction formulae and use them to solve particular integrals Integrate the rational functions.
- **CO3:** Apply integration to find the length of a curve between two points.

Name of Course: Geometry

- CO1: Recognize and find the equation of and plane satisfying given conditions
- **CO2:** Find the equation of the plane in a given system.
- **CO3:** Find the distances between two geometric objects like a point and a plane, a line and a lane etc.
- **CO4:** Find the angle between two lines and two planes.
- **CO5:** Find the equation of a straight line satisfying the given conditions.

Name of Course: Number Theory

CO1: Solve numerical using division Algorithm.

- **CO2:** Find the greatest common divisor of sufficiently large numbers using Euclidean algorithm.
- CO3: Recognize a solvability and obtain all the solutions of a Diophantine equation.
- **CO4:** State and prove the fundamental theorem of arithmetic.
- **CO5:** Understand the use of congruence theory and solve problems on Chinese remainder theorem.

Name of Course: Integral Transforms

- **CO1:** Define Beta and Gamma functions and represent them in different forms.
- **CO2:** Apply properties of Laplace transforms to evaluate Laplace transforms of standard functions.

Name of Course: Mechanics I

- **CO1:** Find the resultant of any number of forces acting on a particle.
- **CO2:** Find the resolved parts of forces acting on a particle and solve numerical on the same.
- **CO3:** State the condition of equilibrium of two forces acting on a particle.
- **CO4:** State the necessary and sufficient condition for any number of forces to in Equilibrium.

Name of Course: Numerical Methods

- **CO1:** Obtain the approximate solution of a linear and transcendental equation up to a desired accuracy
- **CO2:** Understand the differences and apply interpolation formulae to solve problems.
- **CO3:** Apply approximate linear or non-linear function that fits a given data.

Name of Course: Partial Differential Equations

- **CO1:** Form a partial differential equation by e liminating arbitrary constants and arbitrary function.
- **CO2:** Define, recognize and solve Lagrange's partial differential equation.
- **CO3:** Understand five standard forms of nonlinear partial differential equation and use Charpit's method and Jacobi's method to solve a non linear partial differential equation.
- **CO4:** Solve linear and non linear partial differential equations of homogeneous type.

Name of Course: Mechanics II

- **CO1:** Understand the difference between kinematics and kinetics of a particle. Find the Cartesian components, tangential and normal components and radial and transverse components of velocity and acceleration.
- **CO2:** Understand the laws of conservation of momentum and energy, work done in conservation and non conservative field of force.
- **CO3:** To apply the knowledge of motion in non-resisting and resisting medium of projectile in practical situations.

Name of Course: Real Analysis I

- **CO1:** Understand the basic notion sets and its elements and able to decide whether an element is in a given set or not, also find the least upper bound for a given set, if it exists.
- CO2: Perform various operations on sets .
- CO3: Define real valued functions, one to one correspondence between two sets.

Name of Course: Abstract Algebra I

- CO1: Define sets, mappings and integers and understand the properties of them.
- **CO2:** Define groups and provide examples of the groups.
- **CO3:** State and prove some standard results derived from the definition of group.
- **CO4:** Define subgroups and understand the criteria to be satisfied by the subgroups.

Name of Course: Ordinary Differential Equations I

- CO1: Define complex numbers and understand its algebra and geometric representation.
- **CO2:** Define functions, polynomials, complex series, exponential functions and determinants and state their properties.
- **CO3:** State and prove existence and uniqueness theorem for the solution of first order homogeneous and non homo-geneous differential equation.
- **CO4:** Define linear differential equation of higher order.

Name of Course: Real Analysis II

- **CO1:** Understand the of distance between two abstract notions like distance between two sequences, prove a given space isometric space, extend the continuity of a function to a general metric space, formulate continuity in terms of open and closed sets.
- **CO2:** Understand and recognize the connectedness, completeness and compactness of a given metric space , check the continuity on these metric spaces.
- **CO3:** Understand the concept of Riemann integration, recognize the Riemann integrable functions and evaluate the integration of such functions, prove the fundamental theorems of integral calculus.

Name of Course: Abstract Algebra II

CO1: Define and give some important examples of vector spaces and subspaces. **CO2:** Prove elementary deductions from the definition of vector space.

Name of Course: Ordinary Differential Equations II

CO1: Define initial value problem for homogeneous differential equation.

- CO2: Solve initial value problem.
- CO3: Prove linear independence of functions by using Wronskian criterion.
- CO4: Reduce the order of and solve homogeneous linear differential equations.

CO5: Solve non homogeneous equations.

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Course Outcomes: Department of Microbiology B. Sc. First Year

Name of Course: Fundamentals of Microbiology

- **CO1:** To develop a good knowledge of the development of the discipline of Microbiology and the contributions made by prominent scientists in this field.
- **CO2**: To develop a very good understanding of the characteristics of different types of microorganisms, methods to organize/classify these into and basic tools to study the laboratory.
- **CO3:** To explain the useful and harmful activities of the microorganisms and scope of different branches of Microbiology.
- **CO4:** To describe characteristics of bacterial cells, cell organelles and various appendages like capsules, flagella or pili.

Name of Course: Microbial Techniques

- **CO1:** To study the staining techniques for the observation of bacteria and bacterial cell components
- **CO2:** To study the working principle, handling and use of microscopes for the study of microorganisms
- **CO3:** To understand the principles of sterilization and disinfection of culture media, glassware and plastic ware and other objects to be used for microbiological work.

Name of Course: Microbial Chemistry

- **CO1:** To develop a very good understanding of various biomolecules which are required for development and functioning of a bacterial cell.
- **CO2:** To develop the knowledge of how the carbohydrates make the structural and functional components such as energy generation and as storage food molecules for the bacterial cells.
- **CO3:** To make well conversant about multifarious structures and functions of proteins, enzymes, lipids and nucleic acids.

Name of Course: Bacterial Cytology and Virology

CO1: To describe the nutritional requirements of bacteria and other microbes which grow under extreme environments.

- **CO2:** To understand the basic laboratory experiments to isolate, cultivate and differentiate bacteria.
- **CO3:** To study the preservation of bacteria in the laboratory.

Name of Course: Lab Course

- **CO1:** To understand the basic techniques in Microbiology laboratory.
- **CO2:** To study the working principle, handling and use of compound microscope for the study of microorganisms.
- **CO3:** To study the simple and special staining techniques for the observation of bacteria and bacterial cell components.
- **CO4:** To understand the working principles and applications various equipment's in Microbiology laboratory.
- **CO5:** To study the preparation, sterilization and use of various culture media.

Name of Course: Lab Course

CO1: To understand the basic laboratory experiments to isolate and cultivate. **CO2:** To study various biochemical tests used to differentiate bacteria.

Course Outcomes: Department of Microbiology B. Sc. Second Year

Name of Course: Environmental Microbiology

- **CO 1:** This course gives students knowledge about diversity of microbial populations and their important role in environment.
- **CO 2:** To study the immune system, responses, antigen and antibody.
- **CO 3:** To practically study bacteriological examination, water testing and isolation of bacteria from sewage.

Name of Course: Immunology

- **CO 1:** To understand the microbial biodiversity
- **CO 2:** To acquaint with Immunology
- **CO 3:** To understand the morphology, physiology, and significance of extremophilic microbes

Name of Course: Practical Based on Paper VII

- **CO 1:** To practically study bacteriological examination, water testing and isolation of bacteria from sewage.
- **CO 2:** To practically study bacterial pathogen, staining, techniques, hemoglobin examination, isolation and study agricultural test and precipitation.

Name of Course: Practical Based on Paper VIII

- **CO 1:** To practically study bacterial pathogen, staining, techniques, hemoglobin examination, isolation and study agricultural test and precipitation.
- **CO 2:** To practically study bacterial pathogen, staining, techniques, hemoglobin examination, isolation and study agricultural test and precipitation.

Name of Course: Applied Microbiology

- **CO 1:** Comprehend the biodiversity
- **CO 2:** Familiarize with various ecological niche and microbial interactions
- **CO 3:** Recognize the morphology, physiology, and significance of extremophilic Microbes.

Name of Course: Clinical Microbiology

- **CO 1:** To study the principles, need and care of laboratory instruments.
- **CO 2:** To understand theory, principles of chromatographic, electrophoretic, Spectro photometric and radioisotope techniques.
- **CO 3:** Get detail applications of various instrument and techniques in microbial Field.

Name of Course: Practical based on paper XI

- **CO 1:** Practical examination of using different methods through isolation of . microbes from various sources.
- **CO 2:** To study the metabolic pathways of industrially important fermentation
- CO 3: Product.
- **CO 4:** To know the properties, kinetics, and significance of microbial enzymes.

Course Outcomes: Department of Microbiology Course Outcomes for B. Sc. Third Year

Name of Course: Microbial Genetics

- CO 1: Understand functions of gene, bacterial recombination and mutation
- **CO 2:** Determination of growth curve of bacteriophage, practical understanding of replica plating.
- **CO 3:** Elucidate the bioenergetics and microbial metabolic pathways.
- **CO 4:** Cognizant about the metabolic pathways of industrially important fermentation product.

Name of Course: Microbial Metabolism

- CO 1: Study of enzyme and metabolism in microbes.
- **CO 2:** Elucidate the bioenergetics and microbial metabolic pathways.
- **CO 3:** Determination of growth curve of bacteriophage, practical understanding of replica plating

Name of Course: Industrial Microbiology

- **CO 1:** To study industrial processes that use microbes to prepare various products.
- **CO 2:** Study production detection and estimation of different products.
- **CO 3:** Study production detection and estimation of different products.

Coordinator Internal Quality Assurance Cell Venkatesh Mahajan Senior Cellege Osmanabad



Course Outcomes: Department of B.C.A. B.C.A. First Year

Name of Course: T-Computer Fundamental

- **CO1:** To familiarize students with computer environment.
- **CO2:** To familiarize learners with the basics of Operating System and business communication tools.
- **CO3:** To identify parts of computer system.
- **CO4:** To explain functioning of computer components.
- **CO5:** To explain the process of problem solving using computers.
- **CO6:** To design an algorithmic solution for a given problem.

Name of Course: Digital Electronics

- **CO1:** To familiar with concepts of digital electronics.
- **CO2:** To learn number systems and their representation.
- **CO3:** To understand basic logic gates, Boolean algebra and K-maps.
- **CO4:** To study arithmetic circuits, combinational circuits and sequential circuits.
- **CO5:** To study comparative aspects of logic families.

Name of Course: Microprocessor

- **CO1:** To understand basic architecture of 16 bit microprocessors.
- **CO2:** To understand interfacing of 16 bit microprocessor with memory and peripheral chips involving system design.
- **CO3:** To understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessors.
- **CO4:** To understand microprocessor instruction sets, assembly language programming.

CO5: To write programs to run on 8086 microprocessor based systems.

Name of Course: **Programming in C**

- **CO1:** To enable students to learn a programming language.
- **CO2:** To apply problem solving techniques.
- **CO3:** To write programs in C language.
- **CO4:** To read, understand and trace the execution of programs written in C language.
- **CO5:** To write the C code for a given algorithm.

Name of Course: Communication skills

- **CO1:** To demonstrate preparation and research skills for oral presentations.
- **CO2:** To develop proper listening skills.
- **CO3:** To articulate and enunciate words and sentences clearly and fficiently.
- **CO4:** To enhance confidence and clarity in public speaking projects.

Name of Course: Written Communication

- **CO1:** To understand the rules of spelling and grammar.
- **CO2:** To read, analyze text and apply ideas in writing.
- **CO3:** To organize thoughts in a manner that emphasizes flow and paragraph development.
- **CO4:** To acquire proper footnoting and bibliography skills.
- **CO5:** To understand writing techniques and styles based on the communication medium.

Name of Course: Mathematical Foundation

- **CO1:** To distinguish between statement logic and predicate logic.
- **CO2:** To visualize data numerically and/or graphically.
- **CO3:** To evaluate mathematical principles and logic design.
- **CO4:** To apply induction, proof techniques towards solving recurrences.
- **CO5:** To illustrate the basic terminology of functions, relations.

Name of Course: Office Suite Practical

CO1: Demonstrate mechanics and uses of word tables to organize and present data.

- **CO2:** Demonstrate working knowledge of using Word's themes and clip art to create a variety of visual effects.
- **CO3:** Demonstrate working knowledge of Word's advanced formatting techniques and presentation styles.
- **CO4:** Demonstrate applicable knowledge and uses of accepted business style formatting conventions.
- **CO5:** Create and design a spreadsheet for general office use.

Name of Course: Digital Electronics Practical

- **CO1:** Understand and apply use of analog signals to represent digital values in logic families, including characterization of the noise margins.
- **CO2:** Create appropriate truth table from a description of a combinational logic function.
- **CO3:** Create a gate-level implementation of a combinational logic function described by a truth table using and/or/inv gates.
- **CO4:** Evaluate combinational and sequential logic designs using metrics.

Name of Course: Microprocessor- Practical

- **CO1:** Intel 8086 microprocessor architecture and real mode memory addressing.
- **CO2:** Intel microprocessor addressing modes.
- **CO3:** Assembly language programming and debugging.
- **CO4:** Arithmetic calculations using 8086 microprocessor kit.
- **CO5:** Transfer of data and exchange of data between various memory units.

Name of Course: **Programming**

- **CO1:** Understand the fundamentals of C-programming.
- **CO2:** Choose loops and decision making statements to solve the problem.
- **CO3:** Implement different operations on arrays.
- **CO4:** Basic mathematical calculations.

Name of Course: Data Structures:

CO1: Students are able to choose appropriate data structure as applied to specified problem definition.

- **CO2:** Students can handle operations such as searching, insertion, deletion, traversing mechanism etc. on various data structures.
- **CO3:** Students can apply concepts learned in various domains like DBMS, compiler construction etc.
- **CO4:** Students can use linear and non-linear data structures like stacks, queues, linked list etc.

Name of Course: **Operating System**

- **CO1:** To understand functions, structures and history of operating systems. **CO2:** To understand design issues associated with operating systems.
- **CO3:** To understand process management concepts including scheduling, synchronization, and deadlocks.
- **CO4:** To familiarize with multithreading.

Name of Course: Tools & Web Designing -I

- **CO1:** To learn understand the basics of internet and web designing.
- **CO2:** To understand architecture of browser, server, web page, web sites & clients.
- **CO3:** To know about internet domains, protocols, browser and server communication.
- **CO4:** To know the basic knowledge of HTML and DHTML language for web page development.
- **CO5:** To understand concepts of internet programming using JavaScript.

Name of Course: Programming-II

- **CO1:** To understand creation of user defined functions for specific task in C language.
- CO2: To understand about functions and its types and working.
- **CO3:** To understand use of user defined data types such as structures & unions.
- **CO4:** To enable students for dealing with memory using pointers.
- **CO5:** To get information about library functions and storage classes in C language.

Name of Course: Communication Skill -II

CO1: To demonstrate preparation and acquire skills for oral presentations. **CO2:** To develop proper listening skills.

- **CO3:** To articulate and enunciate words and sentences clearly and efficiently.
- **CO4:** To show confidence and clarity in public speaking projects.
- **CO5:** To demonstrate ability to gather information and apply it to persuade or articulate.

Name of Course: Written Communication

- **CO1:** To understand the rules of spelling and grammar.
- **CO2:** To read and analyze text and enable learner to summarize ideas in writing.
- **CO3:** To organize thoughts in a manner that emphasizes flow and paragraph development.
- **CO4:** To learn proper footnoting and bibliography skills.
- **CO5:** To understand different writing techniques and styles based on communication medium being used.

Name of Course: Numerical Methods

- **CO1:** To demonstrate understanding of common numerical methods and their application to obtain approximate solutions to intractable mathematical problems.
- **CO2:** To apply numerical methods to obtain approximate solutions to mathematical problems.
- **CO3:** To derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.
- **CO4:** To analyze and evaluate the accuracy of common numerical methods.

Name of Course: Data Structure (LAB)

- **CO1:** To understand the concepts of dynamic memory management, data types, algorithms, big O notation.
- **CO2:** To understand basic data structures such as arrays, linked lists, stacks and queues.
- **CO3:** To describe hash function and concepts of collision and its resolution methods.

Name of Course: Tools & Web Designing (LAB):

- **CO1:** Explain the history of internet and related internet concepts that are vital in understanding web development.
- **CO2:** Discuss the insights of internet programming and implement complete applications over the web.
- **CO3:** Demonstrate important HTML tags for designing static pages and separate design from content using Cascading Style sheet.

Name of Course: Programming

- **CO1:** Implement programs with pointers and arrays, perform pointer arithmetic, and the use of pre-processor.
- **CO2:** Write programs that perform operations using derived data types.
- **CO3:** Use pointers and user defined data types.
- **CO4:** Use functions used in C language.

Name of Course: Numerical Method

- **CO1:** Identify different mathematical problems and reformulate appropriately for numerical data treatment.
- **CO2:** Choose appropriate numerical methods for treatment of a given problem.
- **CO3:** Explain choice of method by accounting for advantages and limitations.
- **CO4:** Choose an algorithm that implies efficient calculations and implement in a programming language, suited for calculations.
- **CO5:** Estimate reliability of results.

Name of Course: Database Management System

- **CO1:** To understand database system, basic concepts, architecture, features, purpose, advantage of DBMS.
- **CO2:** To learn about component of a DBMS: Users, facilities & structure.
- **CO3:** To learning about data modeling & design.
- **CO4:** To learn about entity-relationship data model.

Name of Course: Mobile Maintenance

- **CO1:** To study basic electronics and microcomputers.
- **CO2:** To enable learners to handle mobile phones with the knowledge of testing batteries and battery charger.
- **CO4:** To identify different chips and crystals on mobile PCB board.

CO5: To understand motherboard and different softwares for mobile repairing.

Name of Course: Principle of Management:

- **CO1:** To understand basic concepts, scope, importance and evaluation of management.
- **CO2:** To handle administrative section by applying work authority and responsibility.
- **CO3:** To learn functions of management such as planning, organizing, staffing and so on.

Course Outcomes: Department of B.C.A. B.C.A. Second Year

Name of Course: Programming in CPP

- **CO1:** To acquire an understanding of basic object oriented concepts and issues involved in effective class design.
- **CO2:** To write C++ programs that use object oriented concepts such as information hiding, constructors, destructors and inheritance.

Name of Course: Personality Development

- **CO1:** To develop and exhibit and accurate sense of self.
- **CO2:** To develop and nurture a deep understanding of personal motivation.
- **CO3:** To develop an understanding of practice of personal and professional responsibility.
- **CO4:** To enhance self-confidence.
- **CO5:** To identify, understand, and apply contemporary theories of leadership to a wide range of situations and interactions.

Name of Course: Statistical Method

CO1: To prepare for competitive examinations.

- **CO2:** To apply statistics in real life.
- **CO3:** To understand and calculate various types of averages and variations.
- **CO4:** To understand application of discrete & continuous probability distributions to various business problems.
- **CO5:** To understand organization, management, and data presentation.

Name of Course: Programming in C++ & aDBMS (LAB)

- **CO1:** Use C++ functions and concepts related to good modular design.
- **CO2:** Apply one-dimensional and two-dimensional arrays.
- **CO3:** Use C++ structures.
- **CO4:** Understand pointers and reference parameters.
- **CO5:** Use text file input/output

Name of Course: Maintenance-I & SM using Excel (LAB)

- **CO1:** To understand the basic internal structure of mobile phones.
- **CO2:** To learn how to connect the mobile chips and battery.
- **CO3:** To explain different types of mobile phones with its IC's.
- **CO4:** To learn applications and security issues of mobile phones.
- **CO5:** To draw the different graphical representation of the raw data in statistical method using excel.

Name of Course: Advance Database Management System

- **CO1:** Student will able to deal with database system using SQL to manipulate data.
- **CO2:** Understanding of physical storage of data.
- **CO3:** Understanding of architecture of database system.
- **CO4:** Learning about transaction processing and concurrency control.

Name of Course: Advance Mobile Repairing

- **CO1:** Student will understand of mobile phone technology.
- **CO2:** Student will be familiarized with microchip and microprocessor technology.
- **CO3:** Student will get practical training of handling various components of mobile phone.
- **CO4:** Learning of circuit diagram of mobile phone with complete software installation.

Name of Course: Software Project Management

- **CO1:** To manage selection and initiation of individual projects and of portfolios of projects in enterprise.
- **CO2:** Implement processes for successful resource, communication, risk and change management.
- **CO3:** To conduct project planning activities that accurately forecast project costs, timelines, and quality.
- **CO4:** To demonstrate effective project execution and control techniques that result in successful projects.

Name of Course: Core Java

CO1: To implement object oriented programming concepts.

- **CO2:** To use and create packages and interfaces in a Java program.
- **CO3:** To use graphical user interface in Java programs.
- **CO4:** To create applets.
- **CO5:** To implement exception handling in Java.

Name of Course: Aptitude and Logical Reasoning

CO1: To prepare for competitive examinations.

- **CO2:** To evaluate critically various real life situations by resorting to analysis of key issues and factors.
- **CO3:** To read in between the lines and understand language structures.
- **CO4:** To demonstrate principles involved in solving mathematical problems and reducing the time taken for performing job functions.

Name of Course: Linear Programming Problem (LPP)

- **CO1:** To know the role of linear programming.
- **CO2:** To understand applications of linear programming.
- **CO3:** To define LPP and formulate the LPP in general and graphical form.
- **CO4:** To understand methods of LPP.

Name of Course: Programming in Java &Adv. DBMS using SQL (LAB)

- **CO1:** Understand structure and model of Java programming language.
- **CO2:** Use the Java programming language for various programming technologies.
- **CO3:** Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements.

CO4: Propose the use of certain technologies by implementing in Java programming language to solve a given problem.

Name of Course: Mobile Maintenance-II & Mini project (LAB)

CO1: Know various features of mobile phones.

- **CO2:** Handle internal part of mobile.
- **CO3:** Handle software's of mobile phones.
- **CO4:** Formulate a real world problem and develop its requirements.

Name of Course: Software Project Management II

CO1: To recognize, trace and resolve IT related crises using project

management software.

- **CO2:** To identify the impact of IT projects on the performance of organizations.
- **CO3:** To manage the phases and infrastructure of IT projects.
- **CO4:** To develop strategies to calculate risk factors involved in IT projects.

Name of Course: Computer Graphics-I

CO1: To learn basic concepts in computer graphics which includes different

input-output devices and graphics file formats.

- **CO2:** To use different functions of graphics for creating objects.
- **CO3:** To be able to move an object from one place to another, rotate, scale, reflect the object easily.
- **CO4:** To generate character / alphabets using various methods.

Name of Course: Core Java-II:

- **CO1:** To understand input/output stream used in java.
- **CO2:** To learn different utilities in java language.
- **CO3:** To have an overview of database access and details for managing information using JDBC API.
- **CO4:** To enable learners to write simple GUI interfaces for a computer program, to interact with users, and understand event-based GUI handling principles.

Name of Course: Data Warehousing:

- **CO1:** To evaluate models of OLAP and data pre-processing.
- **CO2:** To enlist algorithms used in information analysis of data mining techniques.
- **CO3:** To demonstrate the knowledge retrieved through solving problems.

Name of Course: Data Communication & Networks

- **CO1:** To understand types of networks, technologies and applications of networks.
- **CO2:** To understand types of addresses and data handling.
- **CO3:** To understand networking models, protocols and functionality of each layer.
- **CO4:** To learn basics of networking hardware and tools.

Name of Course: Beginners Programming with PHP

CO1: To understand server-side programming works on the web.

CO2: To learn PHP Basic syntax for variable types and calculations.

CO3: To create conditional structures.

CO4: To store data in arrays.

CO5: To use PHP built-in functions for creating custom functions.

Name of Course: Pr. Graphics & Pr. Based on Core Java-II (LAB):

- **CO1:** To study and make an object based on graphical functions.
- **CO2:** To learn drawing of different shapes using various algorithms.
- **CO3:** To handle various movements of an object for animation translate, rotate, scaling and reflection.
- **CO4:** To understand input/output stream in Java.
- **CO5:** To learn utilities in Java language.

Name of Course: Based on DCN & Pr. Based on PHP (LAB)

CO1: To describe standard network models.

CO2: To understand guided transmission media.

CO3: To analyze error detection and error correction codes.

CO4: To understand the concepts behind medium access control sub layer.

CO5: To understand working of server-side programming on the web.

Name of Course: Software Testing and Quality Assurance

- **CO1:** Students will be able to identify benefits and the needs to enforce software quality.
- **CO2:** Students will be able to differentiate between quality control, quality management and quality assurance.
- **CO3:** Students will be able to discuss different software quality factors models.
- **CO4:** Students learn systematic approach to the development, operation, maintenance, and retirement of software.

Name of Course: Computer Graphics-II

- **CO1:** Student will understand three dimensional (3-D) basic concepts.
- **CO2:** Students will be able to perform different operations on an object such as 3D-rotation, scaling and translation.
- **CO3:** Students can clip objects using different methods/algorithms.
- **CO4:** To understand curves and fractals concept.

Name of Course: Java Server Pages (JSP)

- **CO1:** Students will understand Java server pages by its life cycle.
- **CO2:** Students can learn different scripting tags.
- **CO3:** Students can understand different tags helpful to the server pages such as directive tags, action tags and also depth knowledge of Java Beans.
- **CO4:** To handle database access to JSP page.
- **CO5:** To understand JSTL, Core and XML tag library.

Name of Course: T - Data Mining:

CO1: To build basic terminology.

- **CO2:** To display a comprehensive understanding of different data mining tasks and the algorithms most appropriate for addressing them.
- **CO3:** To evaluate models/algorithms with respect to accuracy.
- **CO4:** To demonstrate capacity to perform a self-directed piece of practical work that requires the application of data mining techniques.
- **CO5:** To analyze critically the results of data mining exercise.

Name of Course: Cloud computing:

- **CO1:** Students can learn cloud computing fundamentals with cloud services.
- **CO2:** Students can learn different cloud computing technologies and their applications.
- **CO3:** Students can understand key enabling technologies for virtual private clouds and their applications.
- **CO4:** Students can understand different role of networks in cloud computing.
- **CO5:** Students can learn architecture of cloud and data-intensive technologies along with their characteristics and system architecture for cloud computing.

Name of Course: Advanced Programming with PHP

CO1: To maintain state using cookies, session variables, hidden form fields

and query strings.

- **CO2:** To use PHP to manipulate files.
- **CO3:** To introduce to OOP (Object Oriented Programming) in PHP.
- CO4: To understand use of an object-oriented API to access SQL to SELECT,

INSERT, UPDATE and DELETE data from tables.

Name of Course: Pr. Based on PHP & JSP (LAB)

CO1: To identify and handle the types of errors that can occur while programming with PHP.

- **CO2:** To introduce learners to OOP (Object Oriented Programming) in PHP.
- **CO3:** To use an object-oriented API to access SQL to SELECT, INSERT,

UPDATE and DELETE data from tables.

CO4: To use php MyAdmin utility to administer the MySQL database.

Name of Course: Major Project

CO1: To formulate a real world problem and develop its requirements.

- **CO2:** To develop a design solution for a set of requirements.
- **CO3:** To test and validate conformance of the developed prototype against the original requirements of a problem.
- **CO4:** To work as a responsible member and a leader of a team in developing software solutions.

Course Outcomes: Department of B.C.A. B.C.A. Third Year

Name of Course: Digital Electronics

CO1: To familiar with concepts of digital electronics.

- **CO2:** To learn number systems and their representation.
- **CO3:** To understand basic logic gates, Boolean algebra and K-maps.
- **CO4:** To study comparative aspects of logic families.

Name of Course: Microprocessor

CO1: To understand basic architecture of 16 bit microprocessors.

- **CO2:** To understand interfacing of 16 bit microprocessor with memory and peripheral chips involving system design.
- **CO3:** To understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessors.
- **CO4:** To understand microprocessor instruction sets, assembly language programming.
- **CO5:** To write programs to run on 8086 microprocessor based systems.

Name of Course: **Programming in C –I**

CO1: To enable students to learn a programming language.

CO2: To apply problem solving techniques.

- **CO3:** To write programs in C language.
- **CO4:** To read, understand and trace the execution of programs written in C language.
- **CO5:** To write the C code for a given algorithm.

Name of Course: Communication skills:

CO1: To demonstrate preparation and research skills for oral presentations.

- **CO2:** To develop proper listening skills.
- **CO3:** To articulate and enunciate words and sentences clearly and efficiently.
- **CO4:** To enhance confidence and clarity in public speaking projects.
- **CO5:** To demonstrate ability to gather information and apply it to persuade Or articulate one's own point of view.

Name of Course: Written Communication

CO1: To understand the rules of spelling and grammar.

- **CO2:** To read, analyze text and apply ideas in writing.
- **CO3:** To organize thoughts in a manner that emphasizes flow and paragraph development.
- **CO4:** To acquire proper footnoting and bibliography skills.
- **CO5:** To understand writing techniques and styles based on the communication medium.

Name of Course: - Mathematical Foundation:

CO1: To distinguish between statement logic and predicate logic.

- **CO2:** To visualize data numerically and/or graphically.
- **CO3:** To evaluate mathematical principles and logic design.

Name of Course: Office Suite Practical (LAB):

- **CO1:** Demonstrate mechanics and uses of word tables to organize and present data.
- **CO2:** Demonstrate working knowledge of using Word's themes and clip art to create a variety of visual effects.
- **CO3:** Demonstrate working knowledge of Word's advanced formatting techniques and presentation styles.
- **CO4:** Demonstrate applicable knowledge and uses of accepted business style formatting conventions.
- **CO5:** Create and design a spreadsheet for general office use.

Name of Course: Digital Electronics Practical (LAB)

- **CO1:** Understand and apply use of analog signals to represent digital values in logic families, including characterization of the noise margins.
- **CO2:** Create appropriate truth table from a description of a combinational logic function.
- **CO3:** Create a gate-level implementation of a combinational logic function described by a truth table using and/or/inv gates.
- **CO4:** Evaluate combinational and sequential logic designs using metrics.

Name of Course: Microprocessor-I (8086) Practical (LAB)

- **CO1:** Intel 8086 microprocessor architecture and real mode memory addressing.
- **CO2:** Intel microprocessor addressing modes.
- **CO3:** Assembly language programming and debugging.
- **CO4:** Arithmetic calculations using 8086 microprocessor kit.
- **CO5:** Transfer of data and exchange of data between various memory units.

Name of Course: C Programming-I Practical (LAB)

- **CO1:** Understand the fundamentals of C-programming.
- **CO2:** Choose loops and decision making statements to solve the problem.
- **CO3:** Implement different operations on arrays.
- **CO4:** Basic mathematical calculations.

Name of Course: Data Structures

- **CO1:** Students are able to choose appropriate data structure as applied to specified problem definition.
- **CO2:** Students can handle operations such as searching, insertion, deletion, traversing mechanism etc. on various data structures.
- **CO3:** Students can apply concepts learned in various domains like DBMS, compiler construction etc.
- **CO4:** Students can use linear and non-linear data structures like stacks, queues, linked list etc.

Name of Course: Operating System

- **CO1:** To understand functions, structures and history of operating systems.
- **CO2:** To understand design issues associated with operating systems.
- **CO3:** To understand process management concepts including scheduling, synchronization, and deadlocks.
- **CO4:** To familiarize with multithreading.

Name of Course: Tools & Web Designing -I

- **CO1:** To learn understand the basics of internet and web designing.
- **CO2:** To understand architecture of browser, server, web page, web sites & clients.
- **CO3:** To know about internet domains, protocols, browser and server communication.
- **CO4:** To know the basic knowledge of HTML and DHTML language for web page development.

Name of Course: Programming-II

- **CO1:** To understand creation of user defined functions for specific task in C language.
- CO2: To understand about functions and its types and working.
- **CO3:** To understand use of user defined data types such as structures & unions.
- **CO4:** To enable students for dealing with memory using pointers.
- **CO5:** To get information about library functions and storage classes in C language.

Name of Course: Communication Skill –II

- **CO1:** To demonstrate preparation and acquire skills for oral presentations.
- **CO2:** To develop proper listening skills.
- **CO3:** To articulate and enunciate words and sentences clearly and efficiently.
- **CO4:** To show confidence and clarity in public speaking projects.
- **CO5:** To demonstrate ability to gather information and apply it to persuade or articulate.

Name of Course: Written Communication

- **CO1:** To understand the rules of spelling and grammar.
- **CO2:** To read and analyze text and enable learner to summarize ideas in writing.
- **CO3:** To organize thoughts in a manner that emphasizes flow and paragraph development.
- **CO4:** To learn proper footnoting and bibliography skills.
- **CO5:** To understand different writing techniques and styles based on communication medium being used.

Name of Course: Numerical Methods

- **CO1:** To demonstrate understanding of common numerical methods and their application to obtain approximate solutions to intractable mathematical problems.
- **CO2:** To apply numerical methods to obtain approximate solutions to mathematical problems.
- **CO3:** To derive numerical methods for various mathematical operations and tasks, such as interpolation, differentiation, integration, the solution of linear and nonlinear equations, and the solution of differential equations.
- **CO4:** To analyze and evaluate the accuracy of common numerical methods.

Name of Course: Data Structure (LAB)

- **CO1:** To understand the concepts of dynamic memory management, data types, algorithms, big O notation.
- **CO2:** To understand basic data structures such as arrays, linked lists, stacks and queues.
- **CO3:** To describe hash function and concepts of collision and its resolution methods.

Name of Course: I.T. Tools & Web Designing – I (LAB)

- **CO1:** Explain the history of internet and related internet concepts that are vital in understanding web development.
- **CO2:** Discuss the insights of internet programming and implement complete applications over the web.
- **CO3:** Demonstrate important HTML tags for designing static pages and separate design from content using Cascading Style sheet.

Name of Course: C Programming – II (LAB)

- **CO1:** Implement programs with pointers and arrays, perform pointer arithmetic, and the use of pre-processor.
- **CO2:** Write programs that perform operations using derived data types.
- **CO3:** Use pointers and user defined data types.
- **CO4:** Use functions used in C language.

Name of Course: Numerical Method (LAB)

- **CO1:** Identify different mathematical problems and reformulate appropriately for numerical data treatment.
- **CO2:** Choose appropriate numerical methods for treatment of a given problem.
- **CO3:** Explain choice of method by accounting for advantages and limitations.
- **CO4:** Choose an algorithm that implies efficient calculations and implement in a programming language, suited for calculations.
- **CO5:** Estimate reliability of results.

Name of Course: Database Management System

CO1: To understand database system, basic concepts, architecture, features,

purpose, advantage of DBMS.

- **CO2:** To learn about component of a DBMS: Users, facilities & structure.
- **CO3:** To learning about data modeling & design.
- **CO4:** To learn about entity-relationship data model.
- **CO5:** To understand basics of relational model, normalization, relational algebra.

Name of Course: Mobile Maintenance -I

CO1: To study basic electronics and microcomputers.

- **CO2:** To enable learners to handle mobile phones with the knowledge of testing batteries and battery charger.
- **CO3:** To gain the knowledge of different mobile phones and also able to handle it.
- **CO4:** To identify different chips and crystals on mobile PCB board.
- **CO5:** To understand motherboard and different softwares for mobile repairing.

Name of Course: Principle of Management:

- **CO1:** To understand basic concepts, scope, importance and evaluation of management.
- **CO2:** To handle administrative section by applying work authority and responsibility.
- **CO3:** To learn functions of management such as planning, organizing, staffing and so on.
- **CO4:** To understand human factors in business administration and organization.
- **CO5:** To enable learners to control and coordinate with colleagues.

Name of Course: **Programming in CPP**:

- **CO1:** To acquire an understanding of basic object oriented concepts and issues involved in effective class design.
- **CO2:** To write C++ programs that use object oriented concepts such as information hiding, constructors, destructors and inheritance.

Name of Course: Personality Development:

- **CO1:** To develop and exhibit and accurate sense of self.
- **CO2:** To develop and nurture a deep understanding of personal motivation.
- **CO3:** To develop an understanding of practice of personal and professional responsibility.
- **CO4:** To enhance self-confidence.

Name of Course: Statistical Method:

- **CO1:** To prepare for competitive examinations.
- **CO2:** To apply statistics in real life.
- **CO3:** To understand and calculate various types of averages and variations. distributions to various business problems.
- **CO5:** To understand organization, management, and data presentation.

Name of Course: Programming in C++ & aDBMS (LAB)

CO1: Use C++ functions and concepts related to good modular design. **CO2:** Apply one-dimensional and two-dimensional arrays.

CO3: Use C++ structures.

CO4: Understand pointers and reference parameters.

CO5: Use text file input/output

Name of Course: Mobile Maintenance-I & SM using Excel (LAB)

- **CO1:** To understand the basic internal structure of mobile phones.
- **CO2:** To learn how to connect the mobile chips and battery.
- **CO3:** To explain different types of mobile phones with its IC's.
- **CO4:** To learn applications and security issues of mobile phones.
- **CO5:** To draw the different graphical representation of the raw data in statistical method using excel.

Name of Course: Advance Database Management System

- **CO1:** Student will able to deal with database system using SQL to manipulate data.
- **CO2:** Understanding of physical storage of data.
- **CO3:** Understanding of architecture of database system.
- **CO4:** Learning about transaction processing and concurrency control.

Name of Course: Advance Mobile Repairing

- **CO1:** Student will understand of mobile phone technology.
- **CO2:** Student will be familiarized with microchip and microprocessor technology.
- **CO3:** Student will get practical training of handling various components of mobile phone.
- **CO4:** Learning of circuit diagram of mobile phone with complete software installation.
- **CO5:** Student will be able to find the fault in hardware and software.

Name of Course: Software Project Management

- **CO1:** To manage selection and initiation of individual projects and of portfolios of projects in enterprise.
- **CO2:** Implement processes for successful resource, communication, risk and change management.
- **CO3:** To conduct project planning activities that accurately forecast project costs, timelines, and quality.
- **CO4:** To demonstrate effective project execution and control techniques that result in successful projects.

Name of Course: Core Java

- **CO1:** To implement object oriented programming concepts.
- **CO2:** To use and create packages and interfaces in a Java program.

CO3: To use graphical user interface in Java programs.

- **CO4:** To create applets.
- **CO5:** To implement exception handling in Java.

Name of Course: Aptitude and Logical Reasoning

- **CO1:** To prepare for competitive examinations.
- **CO2:** To evaluate critically various real life situations by resorting to analysis of key issues and factors.
- **CO3:** To read in between the lines and understand language structures.
- **CO4:** To demonstrate principles involved in solving mathematical problems and reducing the time taken for performing job functions.

Name of Course: Linear Programming Problem (LPP):

CO1: To know the role of linear programming.

- CO2: To understand applications of linear programming.
- **CO3:** To define LPP and formulate the LPP in general and graphical form.

CO4: To understand methods of LPP.

CO5: To learn transportation and assignment problems using simple steps.

Name of Course: Programming in Java &Adv. DBMS using SQL (LAB):

- **CO1:** Understand structure and model of Java programming language.
- **CO2:** Use the Java programming language for various programming technologies.
- **CO3:** Evaluate user requirements for software functionality required to decide

whether the Java programming language can meet user requirements.

- **CO4:** Propose the use of certain technologies by implementing in Java programming language to solve a given problem.
- **CO5:** Choose an engineering approach to solve problems, starting from the acquired knowledge of programming and knowledge of operating systems.

Name of Course: T - Mobile Maintenance-II & Mini project (LAB)

CO1: Know various features of mobile phones.

CO2: Handle internal part of mobile.

CO3: Handle software's of mobile phones.

CO4: Formulate a real world problem and develop its requirements.

Name of Course: Software Project Management II:

- **CO1:** To recognize, trace and resolve IT related crises using project management software.
- **CO2:** To identify the impact of IT projects on the performance of organizations.
- **CO3:** To manage the phases and infrastructure of IT projects.
- **CO4:** To develop strategies to calculate risk factors involved in IT projects.
- **CO5:** To use project management software to control the design, implementation, closure, and evaluation of IT projects.

Name of Course: CA502-T - Computer Graphics-I:

- **CO1:** To learn basic concepts in computer graphics which includes different input-output devices and graphics file formats.
- **CO2:** To use different functions of graphics for creating objects.
- **CO3:** To be able to move an object from one place to another, rotate, scale, reflect the object easily.
- **CO4:** To generate character / alphabets using various methods.

Name of Course: Core Java-II:

- **CO1:** To understand input/output stream used in java.
- **CO2:** To learn different utilities in java language.
- **CO3:** To have an overview of database access and details for managing information using JDBC API.
- **CO4:** To enable learners to write simple GUI interfaces for a computer program, to interact with users, and understand event-based GUI handling principles.
- **CO5:** To learn use of Java applets for creating interactive web programs: Fonts, color, graphics, and animation.

Name of Course: Data Warehousing:

- **CO1:** To evaluate models of OLAP and data pre-processing.
- **CO2:** To enlist algorithms used in information analysis of data mining techniques.
- **CO3:** To demonstrate the knowledge retrieved through solving problems.

Name of Course: Data Communication & Networks

- **CO1:** To understand types of networks, technologies and applications of networks.
- **CO2:** To understand types of addresses and data handling.

- **CO3:** To understand networking models, protocols and functionality of each layer.
- **CO4:** To learn basics of networking hardware and tools.
- **CO5:** To understand wired and wireless networks, their types, functionality of layer.
- **CO6:** To understand the importance of network security and cryptography.

Name of Course: T- Beginners Programming with PHP

- **CO1:** To understand server-side programming works on the web.
- **CO2:** To learn PHP Basic syntax for variable types and calculations.
- **CO3:** To create conditional structures.
- **CO4:** To store data in arrays.
- **CO5:** To use PHP built-in functions for creating custom functions.

Name of Course: Pr. Based on Comp. Graphics & Pr. Based on Core Java-II (LAB)

- **CO1:** To study and make an object based on graphical functions.
- **CO2:** To learn drawing of different shapes using various algorithms.
- **CO3:** To handle various movements of an object for animation translate, rotate, scaling and reflection.
- **CO4:** To understand input/output stream in Java.
- **CO5:** To learn utilities in Java language.

Name of Course: Pr. Based on DCN & Pr. Based on PHP (LAB):

- **CO1:** To describe standard network models.
- **CO2:** To understand guided transmission media.
- **CO3:** To analyze error detection and error correction codes.
- **CO4:** To understand the concepts behind medium access control sub layer.

Name of Course: Software Testing and Quality Assurance:

- **CO1:** Students will be able to identify benefits and the needs to enforce software quality.
- **CO2:** Students will be able to differentiate between quality control, quality management and quality assurance.
- **CO3:** Students will be able to discuss different software quality factors models.

Name of Course: Computer Graphics-II

CO1: Student will understand three dimensional (3-D) basic concepts. **CO2:** Students will be able to perform different operations on an object such

as 3D-rotation, scaling and translation.

- **CO3:** Students can clip objects using different methods/algorithms.
- **CO4:** To understand curves and fractals concept.
- **CO5:** To enable students to identify and describe different color models for defining an object.

Name of Course: Java Server Pages (JSP)

- **CO1:** Students will understand Java server pages by its life cycle.
- **CO2:** Students can learn different scripting tags.
- **CO3:** Students can understand different tags helpful to the server pages such as directive tags, action tags and also depth knowledge of Java Beans.
- **CO4:** To handle database access to JSP page.
- CO5: To understand JSTL, Core and XML tag library

Name of Course: T - Data Mining:

- **CO1:** To build basic terminology.
- **CO2:** To display a comprehensive understanding of different data mining tasks and the algorithms most appropriate for addressing them.
- **CO3:** To evaluate models/algorithms with respect to accuracy.
- **CO4:** To demonstrate capacity to perform a self-directed piece of practical work that requires the application of data mining techniques.

Name of Course: Cloud computing:

- **CO1:** Students can learn cloud computing fundamentals with cloud services.
- **CO2:** Students can learn different cloud computing technologies and their applications.
- **CO3:** Students can understand key enabling technologies for virtual private clouds and their applications.
- **CO4:** Students can understand different role of networks in cloud computing.
- **CO5:** Students can learn architecture of cloud and data-intensive technologies along with their characteristics and system architecture for cloud computing.

Name of Course: Advanced Programming with PHP

CO1: To maintain state using cookies, session variables, hidden form fields and query strings.

- **CO2:** To use PHP to manipulate files.
- **CO3:** To identify and handle errors that can occur while programming with PHP.
- **CO4:** To introduce to OOP (Object Oriented Programming) in PHP.
- **CO5:** To understand use of an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.

Name of Course: Based on PHP & JSP (LAB)

- **CO1:** To identify and handle the types of errors that can occur while programming with PHP.
- **CO2:** To introduce learners to OOP (Object Oriented Programming) in PHP.
- **CO3:** To use an object-oriented API to access SQL to SELECT, INSERT, UPDATE and DELETE data from tables.

Name of Course: Major Project:

- **CO1:** To formulate a real world problem and develop its requirements.
- **CO2:** To develop a design solution for a set of requirements.
- **CO3:** To test and validate conformance of the developed prototype against the original requirements of a problem.
- **CO4:** To work as a responsible member and a leader of a team in developing software solutions.

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Course Outcomes: Department of Commerce B.Com First Year

Name of Course: Financial Accounting II (Paper-III)

- **CO1:** To provide knowledge of basic accounting concepts, accounting standards and accounting principles the aim is also to provide the practical accounting knowledge.
- CO2: To enable the students about depreciation and royalty account.
- **CO3:** To make an ability to understand accounts of non-trading concern and branch accounts.
- **CO4:** To enrich students in financial accounting
- **CO5:** To enhance the ability to solve practical sums of departmental accounts and consignment accounting.

Name of Course: Business Mathematics and Statistics II

- **CO1:** To make students learn and understand the concept of Co-relation.
- **CO2:** Student is expected to have knowledge of the types and methods of estimating regression lines.
- CO3: This course provides Knowledge about Index Numbers, its types and uses.
- **CO4:** To understand the procedure of application of Probability.
- **CO5:** This Course provides knowledge & ability among students for using statistical tools with Computer.

Name of Course: Business Organization and Management

- **CO1**: To make students learn and understand the foundation of Indian Business & emerging opportunities in Business.
- CO2: Student is expected to have knowledge of the forms of organization.
- **CO3:** This course provides Knowledge about process of Management & Organization.

CO4: To understand the procedure of Leadership, Motivation & Control. **CO5:** This Course provides knowledge of functional areas of management.

Name of Course: Business Communication (Paper-VI)

- **CO1:** To make students learn and understand Business communication.
- **CO2:** Student is expected to have knowledge about the Business correspondence i.e. letter writing, preparing the resume and job application letter.
- CO3: This course provides Knowledge about report writing.
- **CO4:** To understand the procedure of oral presentation.
- **CO5:** This Course provides knowledge & ability among students for modern forms of communicating.

Name of Course: Optional Group Entrepreneurship Development

- CO1: To make students learn and understand the role of Entrepreneurship in Economic Development.
 CO2: Student is expected to have knowledge of the emerging trends in Entrepreneurship Development
 CO3: This course provides Knowledge about Project identification and Resource Management.
- CO4: To understand the procedure of Entrepreneurship Development Program.
- **CO5:** This Course provides knowledge for students how to
 - Selection, Preparation & what are the requirement for the project.

Name of Course: Office Management

- **CO1:** To make students learn and understand the Modern office & its Functions
- **CO2**: Student is expected to have knowledge about office system and role of manager in system
- CO3: This course provides Knowledge about office services.
- CO4: To understand the procedure of record management and reporting.

CO5: This Course provides knowledge for EDP Environment for effective office management.

Course Outcomes: Department of Commerce B.Com Second Year

Name of Course: Corporate Account-I

- **CO1:** To create awareness about Corporate Accounting in conformity with the provisions of Companies Act and as per Indian Accounting Standards.
- CO2: To make aware about the conceptual aspect of corporate accounting.
- O3: To acquaint about issue and forfeiture of shares with re-issue procedure.
- **CO4:** To make practice the final account of Joint Stock Company.
- **CO5:** To enable students to acquire the knowledge of redemption of debentures and preference shares.
- CO6: To understand the knowledge of profit prior to incorporation.

Name of Course: Cost Account-I

CO1: To create ability of students to understand basic cost
accounting concepts and the classification of cost.
CO2: To provide the knowledge of material handling methods such as LIFO,
FIFO, simple average and weighted average.
CO3: To explain the labor costing methods like incentive scheme,
wage payment, time and piece rate etc.
CO4: Awareness will be received about costing methods and techniques.
CO5: To develop overheads knowledge and its methods of distribution.

Name of Course: I.T. Application in Business I

CO1: To aware about C-Language and relevant software.

- **CO2:** To acquaint the student about importance of operators in C and use of computer for it.
- **CO3**: To enhance the knowledge of control benchmarking and decision making in C.
- **CO4:** To guide students about loop and its type.
- **CO5:** To make practice arrays and strings.
- CO6: To encourage students to learn practical application of C- Language.

Name of Course: GST Account-I

- **CO1:** Creating ability of students to learn tax concepts, procedure and legislation pertaining to GST in India.
- CO2: To make perfection in learning of GST Registration process.
- **CO3:** To understand practical online GST registration process and filling GST returns.
- CO4: To provide knowledge of supply under GST and valuation of supply.
- **CO5:** Ability of student is to be existed to learn input tax credit.
- **CO6:** Understand GST accounting with their documentation and keeping process of records in GST.

Name of Course: Financial Management

- **CO1:** To enhance financial literacy of students.
- **CO2:** To make aware students about financial planning and financial sources.
- **CO3:** To analyses budgeting and learned different methods or techniques of capital structure.
- **CO4:** To acquaint about working capital management of a firm and its importance.
- CO5: To learn how to analyze leverages.

Name of Course: Indian Economy

- **CO1:** To orient the students about the recent trends in Indian Economy.
- **CO2:** To create awareness about economic reforms in India since 1991.
- **CO3:** To inculcate knowledge of various aspects of Indian Economy through practical approach like calculation of GDP, national income etc.
- **CO4:** To provide detail information of causes, effects and government measures to reduce unemployment in India.
- CO5: To acquaint the knowledge of five years plans and budget.

Course Outcomes: Department of Commerce B.Com Third Year

Name of Course: Accounting- and Advanced Financial Accounting-II

- **CO1:** To equip the students with the ability to analyze, Interpret and use financial account in business enterprise.
- **CO2:** To introduce stock market, Electricity Company, insolvency accounts of local government and farm accounting.
- **CO3:** To provide the knowledge of social accounting, departmental accounting, investment accounting, bank final account and accounts of insurance companies.

Name of Course: Management Accounting-I and Management Accounting-II

- **CO1:** To equip the students with the ability to analyze interpret accounting information in managerial decision making.
- CO2: To have a good working knowledge of the subject.
- **CO3:** To understand the application of management accounting techniques.
- CO4: To provide the knowledge of budgeting and responsibility accounting.

Name of Course: Cost Accounting-I and Cost Accounting-II

- **CO1:** To expose the students to the basic concepts and the tools used in cost accounting.
- **CO2:** To provide the knowledge about Single and output costing.
- **CO3:** To explain the different accounting methods such as contract costing, operating costing and process costing.

Name of Course: Indirect Taxes and Direct Taxes-I and Indirect Taxes and Direct Taxes-II

CO1: To expose students to the basic tax concepts, procedure and legislation pertaining to indirect tax.

CO2: To provide the basic of Income tax act 1961.

CO3: To understand practical knowledge of income for salary and business and profession.

CO4: To provide knowledge to student of all direct sources of income tax.

Name of Course: New Auditing Trends-I and New Auditing Trends-II

- **CO1:** To understand about the auditing procedure.
- **CO2:** To enable the students to understand the auditing concepts and new auditing trends.
- **CO3:** To explore the knowledge Cost and Management Audit, Human Resource Audit, Investigation, Trends in Cooperative Audit and Tax Audit are explained throughout the subject work.

Name of Course: Optional Group Banking and Insurance-I and Banking and Insurance-II

- CO1: To familiarize student with banking and practices of banking.
- **CO2:** To equip the students with the knowledge of modern banking.
- **CO3:** To develop employability of student in banking, financial and other economic sector.
- CO4: This course enables the students to know Fundamental of Insurance.

Name of Course: Information and Communication Technology-I and Information and Communication Technology-II

- **CO1**: To familiarize the students with the programming in C environment. **CO2**: To familiarize the student with all the latest new age system prevalent in business Domain.
- **CO2:** To Provide the knowledge of E-banking, Security in e-banking, ERP, BPO and Knowledge Management

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