M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of English

Course Outcomes

B.A. First Year

Semester I & II

Paper I & II–English Compulsory	
CO1	Differentiate various types of genres
CO2	Explain nature and structure of sonnet
CO3	Identify parts of speech appearing in sentences
CO4	Distinguish between open and close class items is clear to students
CO5	Have a good knowledge of tenses

Paper I & III– English Optional: The Structure of English	
CO1	Have thoroughly understood the Received Pronunciation
CO2	Reproduce all forty-four speech sounds
CO3	Good knowledge of syllable, phone, intonation, tone group, etc
CO4	Be well versed in sentence types, elements of clause structure, various phrases, etc
CO5	Comprehend the process of word formation

Paper II & IV – English Optional: Reading Literature	
CO1	Know poetical types especially lyric, sonnet and ode
CO2	Read and interpret novel
CO3	Have knowledge of drama, especially of tragedy and comedy
CO4	Read and interpret Shakespearean sonnets
CO5	Read and interpret Keats' odes

B.A. Second Year

Semester III & IV

Paper III & IV –English Compulsory	
CO1	Distinguish between spoken language and the written
CO2	Understand and acquire English language skills through creative writing
CO3	Use English language appropriately, creatively and imaginatively
CO4	Identify the main ideas and themes depicted in a text
CO5	Have competence in various concepts in grammar and writing skills

Paper V & VII – Optional English: Literature in English 1550 - 1750	
CO1	Have developed and applied the literary knowledge
CO2	Know the nature and structure of epic and mock epic
CO3	Differentiate between various types of literary genres
CO4	Distinguish between good and evil, moral & immoral depicted in literature
CO5	Study literature critically

Paper VI & VIII – Optional English: Literature in English 1750- 1900	
CO1	Have obtained sufficient knowledge of poetical types like ballad and dramatic monologue
CO2	Understand the socio-economical condition and culture of English society in the 19thcentury
CO3	Acquainted with the dramatic techniques of Oscar Wilde by studying his play The Importance of Being Earnest
CO4	Understand Coleridge's ballad The Rime of the Ancient Mariner
CO5	Able to interpret Robert Browning's dramatic monologues

B.A. Third Year

Semester V & VI

Paper IX & XIII–Optional English: Twentieth Century Literature in English	
CO1	Acquaint themselves with twentieth century literary and social background
CO2	Understand elements of drama
CO3	Know the features of prescribed poems by Eliot and Yeats
CO4	Comprehend the features of the novels through the study of Sons and Lovers and Lucky Jim
CO5	Have a sound knowledge of the contemporary world as depicted in the play Look Back in Anger

Paper X & XIV–Optional English: An Introduction to Literary Criticism & Terms	
CO1	Understand various forms of literature and the literary terms
CO2	Know importance of literary criticism to understand literature
CO3	Understand classicism in literature
CO4	Come across perspectives of a critic while analyzing and interpreting a text
CO5	Apply critical theories while understanding a text

Paper XI & XV–Optional English: Indian Writing in English	
CO1	Acquainted with the history of Indian English literature
CO2	Distinguish between various genres in Indian English literature
CO3	Gain knowledge of major authors and their literary contribution in Indian English Literature
CO4	Understand characterization in literary works
CO5	Comprehend colonial and post colonial Indian English Literature

B.Sc. First Year

Semester I & II

Paper I & II–English Compulsory	
CO1	Differentiate various types of genres
CO2	Explain nature and structure of sonnet
CO3	Identify parts of speech appearing in sentences
CO4	Distinguish between open and close class items is clear to students
CO5	Have a good knowledge of tenses

B.Sc. Second Year

Semester III & IV

Paper III & IV –English Compulsory	
CO1	Distinguish between spoken language and the written
CO2	Understand and acquire English language skills through creative writing
CO3	Use English language appropriately, creatively and imaginatively
CO4	Identify the main ideas and themes depicted in a text
CO5	Have competence in various concepts in grammar and writing skills

B.Com. First Year

Semester I & II

Paper I & II–English Compulsory	
CO1	Understand importance of English Grammar and its use
CO2	Use different kinds of sentences
CO3	Use speech sounds in speech and writing
CO4	Frame sentences in different tenses
CO5	Differentiate between varied parts of speech

B.Com. Second Year

Semester III & IV

Paper III & IV –English Compulsory	
CO1	Draft official letter
CO2	Prepare agenda and minutes of a meeting
CO3	Comprehend interview skills
CO4	Able to write resume
CO5	Be proficient in report writing

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Hindi

Course Outcomes

B.A., B.Sc., B.Com First Year

Semester I & II

Paper I- सामान्य हिंदी	
CO1	माधव सोनटक्के द्वारा संपादित रचना 'कथा-संसार' के माध्यम से छात्रों को हिंदी कहानियों की समृद्ध परंपरा से परिचित कराना।
CO2	हिंदी कहानियों के माध्यम से छात्रों को अपने समसामायिक यथार्थ से रुबरू कराते हुए उनकी संवेदनाओं को विकसित करना।
CO3	छात्रों में मानवीय मूल्यों के प्रति आस्था जगाना।
CO4	हिंदी भाषा तथा देवनागरी लिपि की विकस-यात्रा से छात्रों को परिचित कराना।
CO5	हिंदी वर्तनी का मानक रूप तथा पारिभाषिक शब्दावली की रचना-प्रक्रिया से छात्रों को परिचित करना।

Paper II- सामान्य हिंदी	
CO1	माधव सोनटक्के द्वारा संपादित रचना 'कथा-संसार' के माध्यम से छात्रों को हिंदी कहानियों की समृद्ध परंपरा से परिचित कराना।
CO2	हिंदी कहानियों के माध्यम से छात्रों को अपने समसामायिक यथार्थ से रुबरू कराते हुए उनकी संवेदनाओं को विकसित करना।
CO3	छात्रों में मानवीय मूल्यों के प्रति आस्था जगाना।
CO4	छात्रों में व्यवहारिक लेखन-कौशल विकसित करना।
CO5	कम्प्यूटर में हिंदी का प्रयोग तथा उसकी उपयोगिता से छात्रों को परिचित कराना।

B.A., B.Sc. Second Year

Semester III & IV

Paper III- सामान्य हिंदी	
CO1	प्रो. जयमोहन एम. एस. द्वारा संपादित रचना 'गद्य के विविध आयाम' के माध्यम से छात्रों को गद्य-विधाओं का स्वरूप एवं उसकी रचना प्रक्रिया से परिचित कराना।
CO2	छात्रों में साहित्य आस्वादन तथा अभिरुचि का परिसंस्कार करना।
CO3	'गद्य के विविध आयाम' के माध्यम से छात्रों में संवेदना का विकास करना।
CO4	छात्रों में जीवन-मूल्यों के प्रति आस्था जगाना।
CO5	वैश्वीकरण के परिप्रेक्ष्य में हिंदी भाषा के बढ़ते महत्व से छात्रों को परिचित कराना।
CO6	भाषा शिक्षण की प्रक्रिया के माध्यम से छात्रों में भाषा कौशल विकसित करना।
CO7	छात्रों में व्यवहारिक लेखन कौशल विकसित करना।

Paper IV- सामान्य हिंदी	
CO1	प्रो. जयमोहन एम. एस. द्वारा संपादित रचना 'गद्य के विविध आयाम' के माध्यम से छात्रों को गद्य-विधाओं का स्वरूप एवं उसकी रचना प्रक्रिया से परिचित कराना।
CO2	छात्रों में साहित्य आस्वादन तथा अभिरुचि का परिसंस्कार करना।
CO3	'गद्य के विविध आयाम' के माध्यम से छात्रों में संवेदना का विकास करना।
CO4	छात्रों में जीवन-मूल्यों के प्रति आस्था जगाना।
CO5	जनसंचार माध्यमों के विविध रूपों से छात्रों को परिचित कराना।
CO6	छात्रों में व्यवहारिक लेखन कौशल विकसित करना।
CO7	छात्रों में अशुद्धि-शोधन की क्षमता विकसित करना।

B.Com. Second Year

Semester III & IV

Paper III- सामान्य हिंदी	
CO1	भाषा का स्वरूप तथा उसकी विशेषताओं के संदर्भ में जानकारी देते हुए वैश्वीकरण के परिप्रेक्ष्य में हिंदी भाषा के बढ़ते महत्व से छात्रों को परिचित कराना।
CO2	भाषा शिक्षण की प्रक्रिया के माध्यम से छात्रों में भाषा कौशल विकसित करना।
CO3	छात्रों में व्यावसायिक लेखन कौशल विकसित करना।
CO4	निबंध का स्वरूप तथा उसकी रचना-प्रक्रिया को समझाते हुए छात्रों में निबंध

Paper IV- सामान्य हिंदी	
CO1	छात्रों को वाणिज्य व्यवसाय के भाषा कौशल से परिचित कराना।
CO2	छात्रों में वाणिज्य व्यवसायिक लेखन कौशल विकसित करना।
CO3	बैंकिंग क्षेत्रों में हिंदी के बढ़ते प्रयोग एवं महत्व से छात्रों को परिचित कराना।
CO4	वाणिज्य व्यवसाय में मीडिया की महत्वपूर्ण भूमिका से छात्रों को परिचित कराना।
CO5	अनुवाद का स्वरूप एवं उसकी रचना-प्रक्रिया को समझाते हुए छात्रों में व्यवसायिक अनुवाद लेखन कौशल विकसित करना।

B.A. First Year

Semester I & II

Paper I -उपन्यास साहित्य	
CO1	उपन्यास का स्वरूप, रचना प्रक्रिया तथा हिंदी उपन्यास की विकास-यात्रा से छात्रों को परिचित कराना।
CO2	स्वातंत्र्योत्तर हिंदी उपन्यासों के माध्यम से छात्रों को अपनी समसामायिक स्थितियों से अवगत कराते हुए उनमें शाश्वत मानवीय मूल्यों के प्रति आस्था जगाना।
CO3	ऐतिहासिक पृष्ठभूमि पर आधारित यशपाल द्वारा लिखित 'अमिता' उपन्यास के माध्यम से छात्रों को युद्ध के दुष्परिणामों से रूबरू कराते हुए विश्वशांति के महत्व को समझाना।
CO4	मन्नू भंडारी जी के उपन्यास 'आपका बंटी' के माध्यम से छात्रों को दाम्पत्य जीवन की त्रासदी का बालमनोविज्ञान पर होने वाले परिणामों से अवगत कराते हुए टूटती हुई परिवार व्यवस्था को बचाए रखने के लिए जागृत करना।

Paper II - नाटक साहित्य	
CO1	नाटक का स्वरूप, तत्व, रचना-प्रक्रिया तथा हिंदी नाटक एवं रंगमंच की समृद्ध परंपरा से छात्रों को परिचित कराना।
CO2	डॉ. रामकुमार वर्मा द्वारा लिखित 'विजय पर्व' नाटक के माध्यम से अहिंसा तथा विश्वशांति के महत्व को समझाना।
CO3	सुशील कुमार सिंह द्वारा लिखित 'अलख आजादी की' नाटक के माध्यम से छात्रों को भारत के चार सौ वर्षों के आर्थिक परतंत्रता के इतिहास से रूबरू कराते हुए उनमें आर्थिक स्वतंत्रता तथा स्वदेश प्रेम की भावना जागृत करना।
CO4	विष्णु प्रभाकर द्वारा लिखित 'होरी' इस नाटयरूपांतरण के माध्यम से छात्रों को किसानों की दुर्दशा एवं त्रासदी के लिए जिम्मेदार घटकों के निराकरण के लिए जागृत करना।
CO5	हिंदी नाटकों के माध्यम से छात्रों की संवेदनाओं को विकसित करना।
CO6	छात्रों में नाट्यास्वादन तथा नाट्यालोचन क्षमता का विकास करना।

Paper III- हिंदी गद्य साहित्य	
CO1	हिंदी कहानी तथा व्यंग्य साहित्य का स्वरूप एवं रचना-प्रक्रिया से छात्रों को परिचित करा कर उनके संवेदना जगत को विस्तार देना।
CO2	डॉ. माधव सोनटक्के द्वारा संपादित रचना 'कथा यात्रा' के माध्यम से छात्रों को हिंदी कहानियों की समृद्ध परंपरा तथा अपनी समसामायिक स्थितियों से परिचित कराना।
CO3	हरिशंकर परसाई जी की व्यंग्य रचना 'काग भगोड़ा' के माध्यम से अपनी समसामायिक स्थितियों की विसंगतियों एवं विडंबनाओं को उजागर कर छात्रों मे सामाजिक परिवर्तन की भावना जागृत करना।
CO4	छात्रों में साहित्यास्वादन तथा मूल्यांकन क्षमता का विकास करना।
CO5	छात्रों को कहानी तथा व्यंग्य लेखन के लिए प्रेरित करना।

Paper IV- एकांकी साहित्य	
CO1	एकांकी का स्वरूप, तत्व, रचना-प्रक्रिया तथा हिंदी एकांकी की समृद्ध परंपरा से छात्रों को परिचित कराना।
CO2	हिंदी एकांकी साहित्य के माध्यम से छात्रों के संवेदना जगत को विस्तार देना।
CO3	श्रीमती. माया सिंह द्वारा संपादित रचना 'एकांकी नये पुराने' के माध्यम से छात्रों को अपनी समसामायिक स्थितियों से परिचित कराना।
CO4	डॉ. माधव सोनटक्के द्वारा संपादित रचना 'प्रतिनिधि महिला एकांकी' के माध्यम से नारी जीवन की समस्याओं को उजागर कर छात्रों में स्त्री-पुरुष समानता तथा स्वतंत्रता की भावना जागृत करना।
CO5	छात्रों में नाट्यास्वादन, नाट्यालोचन तथा नाट्याभिनय क्षमता का विकास करना।

B.A. Second Year

Semester III & IV

Paper V- कथेत्तर गद्य साहित्य	
CO1	कथेत्तर गद्य साहित्य की समृद्ध परंपरा से छात्रों को परिचित कराना।
CO2	संस्मरण का स्वरूप तथा उसकी रचना-प्रक्रिया से छात्रों को रूबरू कराना।
CO3	डॉ. ई. रा. स्वामी द्वारा संपादित रचना 'गद्य गौरव' में समाविष्ट संस्मरणों के माध्यम से छात्रों को साहित्यकारों के संघर्षमय तथा प्रेरणादायी जीवन से रूबरू कराना।
CO4	डॉ. आलोक गुप्त द्वारा संपादित रचना 'गद्य प्रभा' के माध्यम से छात्रों को अपनी समसामायिक स्थितियों तथा भारतीय सांस्कृतिक वैविध्य से परिचित कराना।
CO5	छात्रों में जीवन मूल्यों के प्रति आस्था जगाना।
CO6	छात्रों में साहित्यास्वादन तथा मूल्यांकन क्षमता का विकास करना।

Paper VI- प्रयोजनमूलक हिंदी- I	
CO1	हिंदी भाषा का स्वरूप, विभिन्न रूप, क्रमिक विकास तथा उसके अंतर्राष्ट्रीय परिदृश्य से छात्रों को परिचित कराना।
CO2	छात्रों को मानक भाषा के रूप में हिंदी की विकास यात्रा से परिचित कराना।
CO3	देवनागरी लिपि का स्वरूप तथा उसकी विकास यात्रा से छात्रों को रूबरू कराना।
CO4	प्रयोजनमूलक हिंदी के प्रयोग क्षेत्र एवं प्रयुक्तियों से छात्रों को परिचित कराना।

Paper VII- आधुनिक हिंदी कविता	
CO1	आधुनिक हिंदी कविता के विभिन्न काव्य आंदोलनों से छात्रों को परिचित कराना।
CO2	लंबी कविता का स्वरूप तथा उसकी रचना-प्रक्रिया से छात्रों को रूबरू कराना।
CO3	छात्रों को गोविंद प्रसाद द्वारा संपादित रचना 'चुनी हुई हिंदी कविताएँ' के माध्यम से अपनी समसामायिक स्थितियों से रूबरू कराना।
CO4	पौराणिक कथा-वस्तु को आधार बनाकर नागार्जुन द्वारा लिखे गये खंड काव्य 'भूमिजा' की प्रतिकात्मकता तथा उसके आधुनिक संदर्भ से छात्रों को परिचित कराना।
CO5	छात्रों में जीवन मूल्यों के प्रति आस्था जगाना।

Paper VIII- प्रयोजनमूलक हिंदी- II	
CO1	हिंदी भाषा के विविध रूपों का छात्रों को परिचय देना।
CO2	छात्रों को राजभाषा हिंदी की अवधारणा, संवैधानिक प्रावधान तथा उसके प्रचार-प्रसार में महत्वपूर्ण संस्थाओं एवं व्यक्तियों के योगदान से परिचित कराना।
CO3	छात्रों में प्रयोजनमूलक हिंदी के लेखन कौशल विकसित करना।
CO4	पारिभाषिक शब्दावली तथा उसकी रचना-प्रक्रिया से छात्रों को परिचित कराना।
CO5	छात्रों को प्रयोजनमूलक अनुवाद का स्वरूप तथा उसकी रचना-प्रक्रिया से परिचित

B.A. Third Year

Semester V & VI

Paper IX- प्रादेशिक साहित्य	
CO1	प्रादेशिक साहित्य से छात्रों को परिचित कराना।
CO2	डॉ. माधव सोनटक्के द्वारा संपादित रचना 'मराठी प्रतिनिधि कहानियाँ' के माध्यम से अपने आँचलिक तथा समसामायिक स्थितियों से छात्रों को रूबरू कराना।
CO3	मराठी में लिखित दलित आत्मकथा साहित्य की समृद्ध परंपरा से छात्रों को परिचित कराकर सामाजिक समता प्रस्थापित करना।
CO4	छात्रों में मराठी से हिंदी और हिंदी से मराठी में अनुवाद करने की क्षमता विकसित करना।

Paper X– आदि तथा मध्यकालीन हिंदी साहित्य का इतिहास	
CO1	हिंदी साहित्येतिहास लेखन स्रोत एवं परंपरा से छात्रों को परिचित कराना।
CO2	आदि तथा मध्यकालीन समसामायिक स्थितियों को समझाना।
CO3	आदि तथा मध्यकाल में सशक्त लेखन करने वाले प्रमुख प्रतिनिधि रचनाकारों के साहित्यिक योगदान पर प्रकाश डालना।
CO4	शाश्वत मानवीय मूल्यों को लेकर पूर्व मध्यकालीन (भक्तिकाल) साहित्य की प्रासंगिकता से छात्रों को रूबरू कराना।

Paper XI- साहित्यशास्त्र-I	
CO1	साहित्य के स्वरूप तथा साहित्य की रचना-प्रक्रिया से छात्रों को परिचित कराना।
CO2	छात्रों में साहित्य के तत्व, प्रयोजन, हेतु, शब्दशक्ति, रस का स्वरूप, रस निष्पत्ति, रस भेद आदि से परिचित कराकर उनमें साहित्य रसास्वादन तथा साहित्य लेखन क्षमता विकसित करना।
CO3	साहित्य-सृजन के लिए छात्रों को प्रेरित करना।

Paper XIII– मध्यकालीन काव्य	
CO1	मध्यकालीन समसामायिक परिवेश को समझना।
CO2	मध्यकालीन काव्य का स्वरूप तथा प्रतिनिधि कवियों की काव्यगत विशेषताओं से छात्रों को परिचित कराना।
CO3	शाश्वत मानवीय मूल्यों को लेकर लिखे गये मध्यकालीन काव्य की प्रासंगिकता से छात्रों को रूबरू कराना।
CO4	मध्यकालीन काव्य के माध्यम से 'एक भारत श्रेष्ठ भारत' की संकल्पना को स्पष् करते हुए छात्रों में राष्ट्रीय एकात्मता की भावना जागृत करना।
CO5	मध्यकालीन काव्य भाषा (जनभाषा) की विशेषताओं से छात्रों को परिचित कराना।

Paper XIV– आधुनिक हिंदी साहित्य का इतिहास	
CO1	आधुनिक काल के समसामायिक परिवेश को समझाना।
CO2	आधुनिक हिंदी साहित्य की समृद्ध परंपरा से छात्रों को परिचित कराना।
CO3	आधुनिक हिंदी साहित्य की विभिन्न विधाओं में (पद्य तथा गद्य) सशक्त लेखन करने वाले प्रतिनिधि रचनाकारों के साहित्यिक योगदान से छात्रों को रूबरू कराना।
CO4	मनुष्य जीवन की वंचना को दूर करने के लिए संकल्पबद्ध विभिन्न विमर्शों के सौंदर्यशास्त्र से छात्रों को परिचित कराना।
CO5	आधुनिक हिंदी साहित्य का इतिहास के माध्यम से हिंदी भाषा की विकास-यात्रा पर प्रकाश डालना।
CO6	साहित्येतिहास लेखन के प्रति छात्रों में रुचि उत्पन्न करना।

Paper XIV– साहित्यशास्त्र-II	
CO1	साहित्य की विभिन्न विधाओं का स्वरूप एवं उसकी रचना-प्रक्रिया से छात्रों को परिचित कराना।
CO2	अलंकार तथा छंद के स्वरूप तथा उसके प्रमुख भेदों से छात्रों को परिचित करा कर उनमें साहित्यिक रसास्वादन क्षमता विकसित कराना।
CO3	छात्रों में आलोचनात्मक दृष्टिकोण विकसित करना छात्रों में आलोचनात्मक दृष्टिकोण विकसित करना।
CO4	छात्रों को साहित्य की विभिन्न विधाओं में सृजन करने के लिए प्रेरित करना।

Paper XII एवं XVI- प्रक्लप-लेखन	
CO1	छात्रों की जिज्ञासावृत्ति को जागृत कर उसे विस्तार देना।
CO2	छात्रों की अनुसंधानात्मक तथा साहित्यालोचन क्षमता को विकसित करना।
CO3	साहित्य रसास्वादन तथा अभिरुचि परिसंस्कार को परिष्कृत करना।
CO4	छात्रों को भाषा, साहित्य, साहित्येतिहास आदि से संबंधित विषयों पर लेखन के

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Department of Marathi

Course Outcomes

B.A. First Year

Semester I & II

Paper I & II S.L. – Gadya Padya aani Upyoujit Marathi	
CO1	विद्यार्थ्यांना महानुभाव संप्रदाय, वारकरी संप्रदायाचा परिचय होतो.
CO2	आधुनिक कवी, लेखकांचा परिचय होतो.
CO3	पाठातील व कवितेतील आशयाच्या माध्यमातून विधार्थ्यांमध्ये सामाजिक मानवी मुल्य रुजतात.
CO4	विद्यार्थ्यांमध्ये मराठी साहित्य आणि मराठी भाषेविषयी आवड निर्माण होते.
CO5	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथालये व ग्रंथ याविषयी माहिती मिळते.
CO6	विद्यार्थ्यांना नीटपणे लिहिता, वाचता यावे, उच्चार स्पष्ट करता यावे, वाक्यरचना व्यवस्थित करता यावी यासाठी लेखन विषयक नियम समजतात.
CO7	विद्यार्थ्यामध्ये पत्रलेखन, संवाद लेखन, अहवाल लेखन, जाहिरात लेखन या कौशल्यांचा विकास होतो.
CO8	विद्यार्थ्यांना मराठी भाषेतील विविध प्रवाहाचा परिचय करुन देता येतो.
CO9	मराठी मधील लेखक कवीचा परिचय करुन देता येतो.
CO10	मराठी भाषेची आवड निर्माण करता येते.
CO11	विद्यार्थ्यांमध्ये साहित्याचा आस्वाद घेण्याची क्षमता निर्माण होते.
CO12	विविध प्रमारमाध्यमांची ओळख होते.
CO13	माहिती तंत्रज्ञानाचा परिचय होतो.
CO14	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथांचा परिचय होतो.

Paper I & III– Marathi Optional: Kavyatma Sahitya & Kathamta Sahitya	
CO1	कविता या वांगमय प्रकाराचा अभ्यास करता येतो.
CO2	मानवी मन समजून घेता येते.
CO3	आनंद, प्रबोधन आणि बोध कवितेतून मिळतो.
CO4	वैश्विक बंधुभाव जागृत होतो
CO5	माणूस हा गोष्टी वेल्हाळ प्राणी आहे. कथेद्वारे माणसाचा पूर्व इतिहास समजावून घेता येतो.
CO6	कथात्मक साहित्यातून सामाजिक व सांस्कृतिक पर्यावरण समजता येते.
CO7	मानवी जीवनाचे सर्वांगिण आकलन होण्यास कथात्मक साहित्य उपयोगी पडते.

Paper II & IV – Marathi Optional: Natyatma Sahitya & Mudrit Madyamansathi Lekhan Kaushalya	
CO1	मराठीमधील एकांकिकांचा अभ्यास करुन घेता येतो.
CO2	इंग्रजीतून मराठीमध्ये आलेला नाटयछटा या वांग्मय प्रकाराचा परियच करुन घेता येतो.
CO3	एकाकिका या वांग्मय प्रकाराचे स्वरुप समजून घेता येते.
CO4	मुद्रित माध्यमातील लेखन कौशल्ये समजुन घेता येते.
CO5	वृत्तपत्रातील वेगवगळया घटकांचा अभ्यास होतो.
CO6	वृत्तपत्रातून छापून येणा-या बातम्या, स्तंभ लेखन अग्रलेखांचे स्वरूप समजून घेता येते.

B.A. Second Year

Semester III & IV

Paper III & IV S.L – Gadya Padya aani Upyoujit Marathi	
CO1	विद्यार्थ्यांना महानुभाव संप्रदाय, वारकरी संप्रदायाचा परिचय होतो.
CO2	आधुनिक कवी, लेखकांचा परिचय होतो.
CO3	पाठातील व कवितेतील आशयाच्या माध्यमातून विधार्थ्यांमध्ये सामाजिक मानवी मुल्य रुजतात.
CO4	विद्यार्थ्यांमध्ये मराठी साहित्य आणि मराठी भाषेविषयी आवड निर्माण होते.
CO5	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथालये व ग्रंथ याविषयी माहिती मिळते.
CO6	विद्यार्थ्यांना नीटपणे लिहिता, वाचता यावे, उच्चार स्पष्ट करता यावे, वाक्यरचना व्यवस्थित करता यावी यासाठी लेखन विषयक नियम समजतात.
CO7	विद्यार्थ्यामध्ये पत्रलेखन, संवाद लेखन, अहवाल लेखन, जाहिरात लेखन या कौशल्यांचा विकास होतो.
CO8	विद्यार्थ्यांना मराठी भाषेतील विविध प्रवाहाचा परिचय करुन देता येतो.
CO9	विविध प्रमारमाध्यमांची ओळख होते.
CO10	माहिती तंत्रज्ञानाचा परिचय होतो.
CO11	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथांचा परिचय होतो.

Paper V & VII – Optional Marathi: Adhunik Marathi Wangmayacha Iithas (1818-1920)	
CO1	मराठी वांग्मयाचा इतिहासाचा परिचय करुन घेता येते.
CO2	१८२० ते १९२० या कालखंडातील वांग्मय निर्मीतीच्या प्रेरणांचा शोध घेता येतो.
CO3	परिवर्तनवादी विचारांची ओळख करुन देता येते.
CO4	१८०० ते ९९२० या कालखंडातील सामाजिक व सांस्कृतिक पार्श्वभूमी समजून घेता येते.
CO5	नाटय वाडमयाची परंपरा समजून घेता येते.
CO6	नाटकाच्या माध्यमातून १८०० ते १९२० या कालखंडातील सामाजिक परिस्थीती समजते.
CO7	१८०० ते १९२० या कालखंडातील कविता या वाडमय प्रकाराचा अभ्यास करता येतो.
CO8	आत्मचरित्र अभ्यासातून सामाजिक परिस्थिती समजून घेता येते.

Paper VI & VIII – Optional Marathi: Drukshravya Madyamansathi Lekhan Kaushlya &Sahitya Prakarantar aani Sahityache Madyamantar	
CO1	इलेक्ट्रॉनिक मिडीयाचा अभ्यास होतो.
CO2	दूरचित्रवाणी विषयक लेखन कौशल्याचा अभ्यास होतो.
CO3	नभोवाणीवरील भाषण व सभेतील भाषण यातील फरकाचा अभ्यास होतो.

CO4	नभोवाणीवरील जाहिरात लेखनाचे तंत्र समजते.
CO5	दृक- श्राव्य स्वरूपात कार्यक्रमाची निर्मिती कशी होते, याची माहिती होते
CO6	साहित्य प्रकारांतरची संकल्पना स्पष्ट होते
CO7	माध्यमांचे महत्त्व स्पष्ट करुन त्याचा साहित्याशी असणारा अनुबंध उलगडून दाखविला जातो.
CO8	माध्यमांसाठी विविध लेखन प्रकाराचा परिचय करुन देता येतो.
CO9	माध्यमांसाठी लेखन प्रकाराचे महत्व व आवश्यकता यांचा परिचय होतो.
CO10	माध्यम लेखनात साहित्याचे महत्त्व विशद केले जाते.

B.A. Third Year
Semester V & VI

Paper IX & XIII–Optional Marathi: Bhartiya Sahitya Vichar & Pashyatya Sahityvichar	
CO1	विद्यार्थ्यांना साहित्याच्या स्वरुपाची ओळख क्रून दिली जाते.
CO2	विद्यार्थ्यांना साहित्याचे प्रयोजन समजावू देता येतात.
CO3	विद्यार्थ्यांना साहित्याची निर्मिती प्रक्रिया सांगता येते
CO4	विद्यार्थ्यांना रस विचाराचा अभ्यस करता येतो.
CO5	संस्कृत अभ्यासाकांनी मांडलेल्या काव्याच्या संदर्भातील व्याख्या समजावून घेता येता.
CO6	विद्यार्थ्यांना पाश्चात्य साहित्याच्या स्वरुपाची ओळख करून देता येते.
CO7	विद्यार्थ्यांना पाश्चात्य साहित्याचे प्रयोजने समजून घेता येतात.
CO8	विद्यार्थ्यांना पाश्चात्य साहित्य निर्मिती प्रक्रिया सांगता येते.
CO9	विद्यार्थ्यांना पाश्चात्य रसांविचाराचा अभ्यास करता येतो.
CO10	पाश्चात्य अभ्यासाकांनी मांडलेल्या काव्याच्या संदर्थातील व्याख्या समजूनन घेता येतात.

Paper X & XIV–Optional Marathi: Bhashavidyan & Vyakaran va Nibandha Lekhan	
CO1	भाषा एक संकेतप्रणाली आहे ते समजते.
CO2	भाषा ध्वनीनी बनली आहे ते समजते
CO3	भाषा आणि भाषण यातील फरक समजतो.
CO4	भाषा कुलाची संकल्पना समजते.
CO5	भाषेसंदर्भातील विविध सिद्धांत ममजतात
CO6	भाषा आणि वोलीतला फरक कळतो
CO7	इतर भाषेतून मराठीत आलेले शब्द कळतात
CO8	व्याकरणाचे नियम समजतात
CO9	दर्जेदार निबंध कसा लिहावा ते समजते

Paper XI & XV–Optional Marathi: Madyaugin Marathi Wangmayacha Itihas (Prarabha te 1600) & Madyaugin Marathi Wangmayacha Itihas (1601 te 1818)	
CO1	मध्ययुगीन मराठी वांग्मयाचा इतिहासाचा परिचय करुन घेता येतो
CO2	प्रारंभ ते १६०० या कालखंडातील वांग्मयाच्या रचनेचा परिचय करुन घेता येतो
CO3	प्रारंभ ते १६०० या कालखंडातील वांग्मय निर्मिताच्या प्रेरणांचा शोध घेता येतो
CO4	प्रारंभ ते १६०० या कालखंडातील सांस्कृतिक पार्श्वभूमीचा उलगडा करता येतो
CO5	मध्ययुगीन साहित्य, भाषा व संस्कृतीचा परिचय करून घेता येतो
CO6	मध्ययुगीन मराठी भाषेतील विविध प्रवाहांचा अभ्यास करता येतो
CO7	१६०१ ने १८१८ या कालखंडालील मराठी भाषेचे स्वरूप लक्षात घेता येते
CO8	१६०१ ते ९८९८ या कालखंडातील प्रमुख संप्रदाय व ग्रथनिर्मितीचा अनुबंध लावता येतो

B.Sc. First Year

Semester I & II

Paper I & II–Marathi S.L. - Gadya Padya aani Upyoujit Marathi	
CO1	विद्यार्थ्यांना महानुभाव संप्रदाय, वारकरी संप्रदायाचा परिचय होतो.
CO2	आधुनिक कवी, लेखकांचा परिचय होतो.
CO3	पाठातील व कवितेतील आशयाच्या माध्यमातून विधार्थ्यांमध्ये सामाजिक मानवी मुल्य रुजतात.
CO4	विद्यार्थ्यांमध्ये मराठी साहित्य आणि मराठी भाषेविषयी आवड निर्माण होते.
CO5	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथालये व ग्रंथ याविषयी माहिती मिळते.
CO6	विद्यार्थ्यांना नीटपणे लिहिता, वाचता यावे, उच्चार स्पष्ट करता यावे, वाक्यरचना व्यवस्थित करता यावी यासाठी लेखन विषयक नियम समजतात.
CO7	विद्यार्थ्यामध्ये पत्रलेखन, संवाद लेखन, अहवाल लेखन, जाहिरात लेखन या कौशल्यांचा विकास होतो.
CO8	विद्यार्थ्यांना मराठी भाषेतील विविध प्रवाहाचा परिचय करुन देता येतो.
CO9	मराठी मधील लेखक कवीचा परिचय करुन देता येतो.
CO10	मराठी भाषेची आवड निर्माण करता येते.
CO11	विद्यार्थ्यांमध्ये साहित्याचा आस्वाद घेण्याची क्षमता निर्माण होते.
CO12	विविध प्रमारमाध्यमांची ओळख होते.
CO13	माहिती तंत्रज्ञानाचा परिचय होतो.
CO14	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथांचा परिचय होतो.

B.Sc. Second Year

Semester III & IV

Paper III & IV –Marathi S.L. - Gadya Padya aani Upyoujit Marathi	
CO1	विद्यार्थ्यांना महानुभाव संप्रदाय, वारकरी संप्रदायाचा परिचय होतो.
CO2	आधुनिक कवी, लेखकांचा परिचय होतो.
CO3	पाठातील व कवितेतील आशयाच्या माध्यमातून विधार्थ्यांमध्ये सामाजिक मानवी मुल्य रुजतात.
CO4	विद्यार्थ्यांमध्ये मराठी साहित्य आणि मराठी भाषेविषयी आवड निर्माण होते.
CO5	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथालये व ग्रंथ याविषयी माहिती मिळते.
CO6	विद्यार्थ्यांना नीटपणे लिहिता, वाचता यावे, उच्चार स्पष्ट करता यावे, वाक्यरचना व्यवस्थित करता यावी यासाठी लेखन विषयक नियम समजतात.
CO7	विद्यार्थ्यामध्ये पत्रलेखन, संवाद लेखन, अहवाल लेखन, जाहिरात लेखन या कौशल्यांचा विकास होतो.
CO8	विद्यार्थ्यांना मराठी भाषेतील विविध प्रवाहाचा परिचय करुन देता येतो.
CO9	मराठी मधील लेखक कवीचा परिचय करुन देता येतो.
CO10	मराठी भाषेची आवड निर्माण करता येते.
CO11	विद्यार्थ्यांमध्ये साहित्याचा आस्वाद घेण्याची क्षमता निर्माण होते.
CO12	विविध प्रमारमाध्यमांची ओळख होते.
CO13	माहिती तंत्रज्ञानाचा परिचय होतो.
CO14	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथांचा परिचय होतो.

B.Com. First Year

Semester I & II

Paper I & II–Marathi Marathi S.L. –Vanijya vyavhar Vyavsay aani Marathi Bhasha & Vavsaik Marathi aani Vanijya Vyapar	
CO1	विद्यार्थ्यांना महानुभाव संप्रदाय, वारकरी संप्रदायाचा परिचय होतो.
CO2	आधुनिक कवी, लेखकांचा परिचय होतो.
CO3	पाठातील व कवितेतील आशयाच्या माध्यमातून विधार्थ्यांमध्ये सामाजिक मानवी मुल्य रुजतात.
CO4	विद्यार्थ्यांमध्ये मराठी साहित्य आणि मराठी भाषेविषयी आवड निर्माण होते.
CO5	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथालये व ग्रंथ याविषयी माहिती मिळते.
CO6	विद्यार्थ्यांना नीटपणे लिहिता, वाचता यावे, उच्चार स्पष्ट करता यावे, वाक्यरचना व्यवस्थित करता यावी यासाठी लेखन विषयक नियम समजतात.
CO7	विद्यार्थ्यामध्ये पत्रलेखन, संवाद लेखन, अहवाल लेखन, जाहिरात लेखन या कौशल्यांचा विकास होतो.
CO8	विद्यार्थ्यांना मराठी भाषेतील विविध प्रवाहाचा परिचय करुन देता येतो.
CO9	मराठी मधील लेखक कवीचा परिचय करुन देता येतो.
CO10	मराठी भाषेची आवड निर्माण करता येते.
CO11	विद्यार्थ्यांमध्ये साहित्याचा आस्वाद घेण्याची क्षमता निर्माण होते.
CO12	विविध प्रमारमाध्यमांची ओळख होते.
CO13	माहिती तंत्रज्ञानाचा परिचय होतो.
CO14	वाचन संस्कृती जोपासण्यासाठी विद्यार्थ्यांना ग्रंथांचा परिचय होतो.

B.Com. Second Year

Semester III & IV

Paper III & IV –Marathi S.L. – Marathi Bhasha aani Vanijya vyavhar & Vavsaik Marathi aani Vanijya Vyapar	
CO1	मराठी भाषेची वाणिज्य विषयक उपयुक्तता निर्माण करता येते.
CO2	विद्यार्थ्यांमध्ये भाषेचा व्यावहारिक वापर करण्याची क्षमता निर्माण होते.
CO3	विविध प्रमारमाध्यमांची ओळख होते.
CO4	माहिती तंत्रज्ञानाचा परिचय होतो.
CO5	भाषा जोपासण्यासाठी विद्यार्थ्यांना संकल्पना व पारिभाषिक शब्दांचा परिचय होतो.

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Botany

Course Outcomes

B.Sc. First Year

Diversity of Cryptogams-I
CO1: Introduction about basic plant group like Algae and Fungi.
CO2: To equip the students with all life science fundamental practical skills.
CO3: Make aware about the economic and medicinal value of cryptogrammic plant.

Morphology of Angiosperms
CO1: Introduction about basic structure of plants.
CO2: To develop practical knowledge of Angiosperm plants

Diversity of Cryptogams-II
CO1: To understand the various category of plants with morphological features of Bryophytesand Pteridophytes.
CO2: Analyze the peculiar characteristics features of plant groups in relation with its internalcharacteristics.
CO3: Make aware of economic and medicinal value of cryptogrammic plant.

Histology, Anatomy and Embryology
CO1: To get detail knowledge of internal structure of plant parts
CO2: To use this knowledge in Wood Industry, Forensic science.
CO3: To understand development of seed and seed certification.

B.Sc. Second Year

Taxonomy of Angiosperm
CO1: Familiarize with basic terminology, plant systematic and its different classification.
CO2: To identify Angiosperm plants and their use.

Plant Ecology
CO1: Knowledge of anatomical characterization of plant for the understanding ecologicaladaptation.
CO2: Study its eco-friendly conservation and sustainable utilization.
CO3: Students cop up with the ecosystem mechanism, analyzing plants ecosystem.

Gymnosperms and Utilization of plants
CO1: To make aware about the economic and medicinal value of Gymnosperms and Angiosperms.
CO2: To understand some important terminology in industrial economically important higherplant groups species.

Plant Physiology
CO1: To understand plant physiology, different life process, streams like Plant genetics andPlant biotechnology.
CO2: To use the knowledge for advance study in plant sciences.

B.Sc. Third Year

Cell and Molecular Biology
CO1: To create the innovative approaches to aware the students in basic terminology of plantcell
CO2: To get the detailed knowledge of cell at molecular level.
CO3: To apply this information for development of humankind

Diversity of Angiosperms-I
CO1: Create awareness about the plant resources
CO2: To classify plants on the basis of various morphological aspects
CO3: Participate in laboratory experiments for understanding the basic principles of lifesciences and helpful for gaining primary information.

Genetics and Biotechnology
CO1: To Study basic terms in Mendelian and Non mendelian genetics
CO2: To focus on Biotechnological importance for improvement and satisfaction of all need ofhuman kinds
CO3: To give basic information regarding the plant biotechnology and its application in agriculture, Horticulture, medicinal and industrial crops.

Diversity of Angiosperms-II
CO1: To study its eco-friendly conservation and sustainable utilization of plants
CO2: Knowledge about flora in the area.

M.S.P. Mandal`s

R. B. Attal Arts, Science and Commerce College,

Department of Zoology

Course Outcomes

First Year

Semester I

Paper I : Protozoa to Annelida	
CO1	Identify animals by observation
CO2	Describe unique characters of Protozoa, Porifera, Coelenterate, Helminthes and Annelids
CO3	Explain life functions of Protozoa, Porifera, Coelenterate, Helminthes and Annelids
CO4	Describe ecological role of phylum Protozoa, Porifera, Coelenterate, Helminthes and Annelida
CO5	Identify diversity from Protozoa, Porifera, Coelenterate, Helminthes and Annelids

Paper II: Cell Biology	
CO1	Describe in detail the structure of cell
CO2	Describe function and the composition of the plasma membrane
CO3	Explain principles of the cell theory
CO4	Differentiate between prokaryotes and eukaryotes
CO5	Understand importance of the nucleus and its components

Semester II

Paper IV: Arthropoda to Echinodermata and Hemichordata	
CO1	Identify animals by observation
CO2	Describe unique characters of Arthropods, Mollusks, Echinoderms & Hemichordates
CO3	Explain life functions of Arthropods, Mollusks, Echinoderms and Hemichordates
CO4	Explain ecological role of phylum from Arthropoda to Hemichordata

Paper V: Genetics I	
CO1	Describe chemical basis of heredity
CO2	Explain role of genetics in evolution
CO3	Evaluate conclusions that are based on genetic data
CO4	Find the results of genetic experimentation in animals

B.Sc II Year

Semester III

Paper VII: Vertebrate Zoology	
CO1	Describe unique characters of urochordates, cephalochordates and fishes
CO2	Recognize life functions of urochordates to fishes
CO3	Explain ecological role of different groups of chordates
CO4	Explain the diversity of chordates and describe unique characters of amphibians, r reptiles, aves and mammals
CO5	Describe life functions of amphibians, reptiles, Aves and Mmammals

Paper VIII: Genetics II	
CO1	Explain in detail gene expression and its behavior in transformation
CO2	Describe the role of genetics in evolution
CO3	Evaluate conclusions that are based on genetic data in population genetics
CO4	Describe genetic diseases and disorders
CO5	Explain the techniques that are used in genetic engineering

SEMESTER IV

Paper XI: Animal Physiology	
CO1	Describe in detail the physiology at cellular and system levels
CO2	Explain the role of different bio-molecules
CO3	Explain how mammalian body get nutrition from different bio-molecules
CO4	Describe the functions of different systems
CO5	Describe the physiology of respiratory, renal, endocrine and reproductive systems to define normal and abnormal functions

Paper XII: Biochemistry and Endocrinology	
CO1	Describe in detail the metabolism of carbohydrates, proteins, fats
CO2	Explain the fundamental biochemical principles
CO3	Describe basic laboratory techniques in biochemistry
CO4	Describe the structure and function of endocrine glands
CO5	Explain the role of hormones

B.Sc III Year

Semester V

Paper XV: Ecology	
CO1	Describe abiotic and biotic factors that affect, the distribution, dispersal, and behavior of organisms
CO2	Identify factors that affect biological diversity and the functioning of ecological systems
CO3	Use an ecological vocabulary in arguments and explanations of ecological phenomena
CO4	Apply concepts and theories from biology to ecological examples
CO5	Analyze and interpret ecological information, research and data

Paper XVI (D): Parasitic protozoa & Helminthes I	
CO1	Study of life cycles of Protozoan parasitic disease, its control, treatment and prophylaxis
CO2	Explain the methods used for diagnosis and treatment of Helminth diseases.
CO3	Distinguish the methods used for protection of parasitic infectious diseases.

Semester VI

Paper XIX: Evolution	
CO1	Describe evolutionary history of man
CO2	Describe origin of species on earth
CO3	Have an enhanced knowledge and appreciation of evolutionary biology and behavior
CO4	Perform, analyze and report on experiments and observations in whole-organism biology
CO5	Gain information regarding animal classification and systematic, animal structure and function relationships, evolution between and within major animal groups, human evolution and animal reproduction and development

Paper XX (D): Parasitic Protozoa & Helminthes II	
CO1	Study of life cycles of Helminthes parasitic disease, its control, treatment and prophylaxis
CO2	Explain the methods used for diagnosis and treatment of Helminth diseases.
CO3	Distinguish the methods used for protection of parasitic infectious diseases.

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Mathematics

Course Outcomes

B.Sc. First Year

Semester I & II

Paper MAT 101 Differential Calculus	
CO1	Solve problems on limits continuity and successive differentiation of Functions
CO2	Determine partial derivative of function more than one variable
CO3	Describe Rolle's Theorem, Lagrange's and Cauchy's mean value theorem
CO4	Describe partial differentiation and able to calculate partial derivatives of higher order.
CO5	Determine gradient, divergence and curl and directional derivatives

Paper MAT 102 Differential Equations	
CO1	Determine solution of first order linear differential equation
CO2	Determine solution of exact differential equation
CO3	Find the solution of ordinary differential equation with more than two variables.
CO4	Determine solution of linear homogeneous differential equation
CO5	Describe partial differential equation and derivative of partial differential eq^n

Paper MAT 201 Integral Calculus	
CO1	Solve Basic Integral Calculus problems
CO2	Find integration of algebraic rational functions
CO3	Apply fundamental theorem of integral calculus
CO4	Calculate the length of arc of a curve.
CO5	Apply the theorems of Gauss, Green's and Stoke's theorem

Paper MAT 202 Geometry	
CO1	Identify and use different type of equations of plane
CO2	Determine equations of the system of planes and the length of perpendicular to a plane
CO3	Determine equation of right line and the angle between the plane and line
CO4	Determine equation of sphere and its intersection with the plane
CO5	Describe the tangent lines and tangent planes to central conicoid.

B.Sc. Second Year

Semester III & IV

Paper MAT 301 Number Theory	
CO1	Describe division algorithm and solve the problem on it
CO2	Determine GCD and LCM by using Euclidean algorithm
CO3	Describe method of solving linear Diophantine equation
CO4	Determine solution of linear congruence
CO5	Describe the Euler's generalization of Fermat's theorem and Euler's phi function

Paper MAT 302 Integral Transforms	
CO1	Define beta and gamma functions and derive their properties and apply them in evaluating integrals
CO2	Determine Laplace transform for various functions, properties of Laplace transforms
CO3	Determine inverse Laplace transform, properties of inverse Laplace Transform
CO4	Determine Fourier transform, properties of Fourier transform, Fourier sine and cosine transforms
CO5	Apply Laplace transform to find solutions of ordinary and partial differential equations

Paper MAT 303 Mechanics - I	
CO1	Describe different types of forces, triangle law of forces, Parallelogram of forces, resultant of forces, sine rule and cosine rule
CO2	Explain resultant of several coplanar forces, equation of the line of action of the resultant, equilibrium of a rigid body under 3 coplanar forces

CO3	Explain Lammi's theorem and polygon of forces
CO4	Explain vector moment of a force and vector moment of couple
CO5	Describe basic concepts of centre of gravity and its applications

Paper MAT 401 Numerical Analysis	
CO1	Explain Bisection Method, Method of False Position, Newton-Raphson Method
CO2	Describe Finite Differences, Newton's Formula for Interpolation, Lagrange's Interpolation Formula, Divided Differences
CO3	Describe Least Square Curve Fitting Procedures, Fitting a straight line, Chebyshev polynomial, Power series
CO4	Calculate Solution of Linear system of equations, Eigen values and Eigen Vectors
CO5	Find the solution of ordinary differential equation of by Euler, Taylor and Runge-Kutta method

Paper MAT 402 Partial Differential Equations	
CO1	Define partial differential equations and Geometrical interpretation of the Lagrange's linear partial differential equation
CO2	Find different types of solutions like complete integral, Singular integral and general integral
CO3	Determine the solution of partial differential equations using Charpit's Method
CO4	Classify partial differential equations to special types
CO5	Describe Monge's Method, Method of transformation

Paper MAT 403 Mechanics - II	
CO1	Find velocity and acceleration in terms of vector derivatives, curvature, Angular speed and angular velocity
CO2	Describe Radial and Transverse components of velocity and acceleration, areal speed and velocity
CO3	Explain Newton's Law of motion, angular momentum, work, energy, vector point function, Field of force
CO4	Describe motion under gravity, projectile, Motion of projectile, Parabola of safety
CO5	Describe areal velocity of central orbit, Pedal's equation

B.Sc. Third Year

Semester V & VI

Paper MAT 501 Real Analysis - I	
CO1	Describe sets, functions, real valued functions, countable sets, Least upper Bound axiom and greatest lower bound axiom.
CO2	Define different types of sequence and series with examples
CO3	Describe limit superior, limit inferior and Cauchy sequence
CO4	Describe absolute and conditional convergence of the series
CO5	Explain Jacobian of implicit function and necessary and sufficient condition for a Jacobian to vanish

Paper MAT 502 Abstract Algebra - I	
CO1	Explain elementary concepts of sets, functions and integrals
CO2	Describe group, subgroup, counting principle, Normal subgroup, Quotient groups, Homomorphism
CO3	Define homomorphism, automorphism, kernel of a homomorphism, isomorphism.
CO4	Define rings , zero divisors of a ring , integral domain , field with examples
CO5	Describe ideals, quotient rings and polynomial rings

Paper MAT 504 Ordinary Differential Equation - I	
CO1	Define Basic concepts of ordinary differential equation
CO2	Describe linear equation of first order and the general linear equation of first order
CO3	Solve problems associated with differential equation
CO4	Find the second order homogeneous equation and initial value problems for second order equations
CO5	Define linear dependence and independence with examples and solve the examples using formula for Wronskian

Paper MAT 601 Real Analysis - II	
CO1	Define Basic concepts of metric spaces and limits in metric spaces
CO2	Explain open sets and closed sets with examples. Prove the related theorems
CO3	Describe connectedness, completeness and compactness with the examples
CO4	Verify the function to be Riemann integral. Prove the properties of Riemann integral.
CO5	Define Fourier series with examples

Paper MAT 602 Abstract Algebra - II	
CO1	Define Basic concepts of vector space and subspaces
CO2	Describe linear independences with examples
CO3	Give examples of bases for vector spaces.
CO4	Solve examples on inner product spaces, Schwarz inequality and orthonormal set
CO5	Define modules and submodules and homomorphism of modules

Paper MAT 604 Ordinary Differential Equation - II	
CO1	Solve initial value problems for homogeneous differential equations
CO2	Explain reduction of the order of a homogeneous equation, nonhomogeneous equations.
CO3	Find homogeneous equation with analytic coefficients, the Legendre equation
CO4	Define the Euler equation, second order equations with singular points
CO5	Explain the general case of second order equations with regular singular points

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Chemistry

Course Outcomes

B.Sc. First Year

Semester I & II

Paper No. I (Inorganic Chemistry)	
CO1	Predict atomic structure and explain various quantum numbers
CO2	Explain standardized names and symbols to represent atoms, molecules, ions and chemical reactions
CO3	Explain trends of periodic properties of elements in periodic table
CO4	Predict biological role of Alkali and Alkaline earth metals

Paper No. II (Organic Chemistry)	
CO1	Explain various effects, and properties of organic compounds, nature of bond
CO2	Discuss nature of bond breaking and mechanical phenomenon
CO3	Explain concept of isomerism and types of stereochemical configuration
CO4	Discuss mechanistic pathways of simple organic reaction

Paper No. III (Lab Course-I)	
CO1	Prepare and standardize various solutions
CO2	Determine basicity of given organic acid
CO3	Determine viscosity of given liquid
CO4	Identify acidic and basic radicals in given mixture
CO5	Identify types of organic compounds by chemical analysis method

Paper No. IV (Physical Chemistry)	
CO1	Calculates Logarithmic relations, curve sketching, linear graphs and calculation of slopes, differentiation of functions like kx ex, xn, sin x, log x; maxima and minima, partial differentiation
CO2	Explains about Gas Laws, Boyles Law, Charles Law, Grahams Law of diffusion, Avogadro's hypothesis, deviation from ideal behavior, van der Waals equation of state
CO3	Understand the term Catalysis: Definition, types, and characteristics of catalysis, homogeneous, heterogeneous catalysis - Enzyme catalysis and its application
CO4	Derived and solve the numerical problems based on zero order, first order, second order, Pseudo order, half-life
CO5	Illustrate the concept of Liquid State, Solid State, Types of solids, Amorphous, crystalline and difference between them, Miller Indices
CO6	Explains difference between solids, liquids and gases. Explains and derived Laws of crystallography
CO7	Understand the basic concept of colloids, classification of colloids, preparation and properties of sols, emulsions and gels and their general applications

Paper No. V (Inorganic Chemistry)	
CO1	Demonstrate preparation, physical and chemical properties, structural properties, Applications of various elements
CO2	Differentiate chemical bonding, hybridization and molecular geometry on the basis of VBT
CO3	Differentiate types of indicators and correlate with appropriate titration method
CO4	Explain various aspects of radioactivity

Paper No. VI (Lab Course-II)	
CO1	Identify nature /functional group /Derivative /physical constant of different compound
CO2	Prepare phenol by bromination
CO3	Estimate basicity molecular weight for acid example Oxalic acid acetic acid
CO4	Identify types of organic compounds by chemical analysis method

B.Sc. Second Year

Semester III & IV

Paper No. VII (Organic Chemistry)	
CO1	Explain different types of alcohol and its identification in simple organic compounds
CO2	Differentiate alcohol and phenols in simple and complex organic molecules
CO3	Explain the structure of carbonyl compounds and type of various name reaction involving carbonyl group
CO4	Analyze effect of substituent on acidity of carboxylic acid
CO5	Analyze effect of basicity in various simple heterocycles

Paper No. VIII (Physical Chemistry)	
CO1	Distinguish isothermal, adiabatic, isochoric and other thermodynamic processes
CO2	Correlate law of mass action, equilibrium constant with free energy
CO3	Solve numerical problems related to efficiency, work done, heat change

Paper No. IX (Lab Course -III)	
CO1	Determine concentration values of sample solutions using instrumentation
CO2	Analyze quantitatively, specific elements by complex metrically and gravimetric methods
CO3	Determine critical solution temperatures of heterogeneous phases
CO4	Evaluate and interpret heat of neutralization reactions

Paper No. X (Inorganic Chemistry)	
CO1	Present in depth knowledge of abundance, position, preparation, properties and chemical behavior of various d and f block elements from the periodic table
CO2	Identify co-ordination compounds and its applications
CO3	Differentiate aqueous and non-aqueous solvents

Paper No. XI (Physical Chemistry)	
CO1	Explain different types of conductometric titrations
CO2	Solve mathematical problems on electro-chemistry
CO3	Explain phase diagrams of one component systems
CO4	Explain phase diagrams of two component systems
CO5	Classify electrochemical and electrolytic cells

Paper No. XII (Lab Course-IV)	
CO1	Determine the molar refractive index of given sample by refractometer
CO2	Prepare organic derivatives and determine physical constants
CO3	Estimate ester, amide and other organic molecule entities
CO4	Preparation of derivative of different compound
CO5	Organic estimation of nitro group by reduction
CO6	Estimate amide by hydrolysis

B.Sc. Third Year

Semester V & VI

Paper No. XIII (Physical Chemistry)	
CO1	Understands about Black body radiation, Planck's radiation law, photoelectric effect, physical interpretation of the wave function, postulates of quantum mechanics
CO2	Develops the idea of Spectroscopy. Basic features of different spectrometers
CO3	Know Photochemistry and explain Laws of photochemistry, Grothus-Drapper law, Stark-Einstein law. Qualitative description of fluorescence, phosphorescence, non-radiative processes and Jablonski diagram
CO4	Explains Physical properties and molecular structure by Guoy balance method, Applications of optical activity, dipole moment and magnetic property for determination of structure of molecule
CO5	Explain the nano-materials and Methods of Synthesis of High energy ball milling, PVD, CVD and Micro emulsion. Synthesis using micro-organisms and plant extract

Paper No. XIV (Organic Chemistry)	
CO1	Find out types of sets of protons in organic compound, their chemical shift value, Splitting Pattern and Coupling Constant
CO2	Solve simple NMR problems with given data
CO3	Classify various organometallic compounds, Synthesis of various organometallic compounds and their application in organic transformation
CO4	Identify and classify various active Methylene compounds and their application in Organic Synthesis

Paper No. XV (Lab Course -V)	
CO1	Separate and identify organic components
CO2	Perform Semi-micro-Qualitative analysis of inorganic mixture
CO3	Study the gravimetric and volumetric analysis of ores and alloy
CO4	Analyze binary mixture with removal of barium and Nickel
Paper No. XVI (Inorganic Chemistry)	

CO1	Explain nature of metal-ligand bonding and illustrate splitting of d Orbitals
CO2	Demonstrate mechanism of sodium potassium cycle
CO3	Describe essential and trace elements and their role in biological system
CO4	Categorize chromatographic techniques with reference to adsorbents and other components.

Paper No. XVII (Organic Chemistry)	
CO1	Explain effect of Aromaticity on strength of basicity of heterocyclic compound
CO2	Classify carbohydrates and its utility in day-to-day life
CO3	Explain synthesis of paracetamol
CO4	Explain properties of good Drugs

Paper No. XVIII (Lab Course-VI)	
CO1	Identify organic mixture0s by chemical analysis method
CO2	Analyze inorganic radicals by chemical analysis method
CO3	Identify and separate given mixtures by gravimetric and volumetric method
CO4	Analyze percent composition of acid mixture by Conductometric method
CO5	Identify empirical formula by Potentiometric method

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Chemistry

Course Outcomes

M. Sc. Chemistry First Year

Semester I & II

CHE-101 (Analytical Chemistry)	
CO1	Familiarizes the students with the advanced methods and theories in Analytical Chemistry
CO2	Helps the students to understand the various instrumental methods in analytical chemistry
CO3	Understand chromatography technique & development of the chromatogram
CO4	Distinguish basic concept of analytical chemistry
CO5	Understand Basic separation technique
CO6	Understand thin layer chromatography liquid chromatography Gel chromatography, Gas Chromatography
CO7	Explain HPLC principal, preparation of column practical procedure

CHE-102 (Inorganic Chemistry)	
CO1	Recognize symmetry elements in a molecule; State the point group a molecule
CO2	Carry out linear combinations of orbitals to form molecular orbital's; Apply this to polyatomic systems
CO3	Understand the role of symmetry in electronic spectroscopy, selection rules
CO4	Apply orbital symmetry to chemical reactions
CO5	Understand Stereochemistry and bonding in main group compound and metal ligand bonding.
CO6	Explain the role of metals in biological systems.

CHE-103 (Organic Chemistry)	
CO1	Explain nature of bonding in various organic molecule and the effect of conformation on reactivity
CO2	Discuss various types of substitution reaction, intermediates in organic reaction and reaction mechanism
CO3	Explain Phase transfer catalyst and ambient Nucleophile with examples.
CO4	Explain various concept of stereochemistry

CHE-104- Physical Chemistry	
CO1	Learn Ionic Equilibria, concept of acid and bases, explanation of pH and pOH, concept of buffer solutions
CO2	Apply fundamental thermodynamics on chemical reactions in energy systems. Explain the relations and links between chemical reaction rates and thermodynamic equilibrium constants. Explain reaction rate dependencies on parameters like temperature, pressure, ionic strength in solution, etc
CO3	Know the classical thermodynamics and various partial molar properties, study of Various thermodynamic laws
CO4	Explain and define about surface and interfacial phenomena, describe and explain and describe different types of colloidal systems and describe interactions between colloidal particles
CO5	Understand the Electrolyte and properties of ions: Activity, conductivity, ionic mobility, ionic Strength, Debye-Huckel theory. Electrochemical properties: Electromotive force (emf) and free energy, Nernst equation and its applications, applications of emf measurements

CHE-205 (Spectroscopy Method of Analysis)	
CO1	Explain the introduction of spectral method of analysis
CO2	Know structure of molecules by microwave spectroscopy
CO3	Understand basic principle of ESCA & instrumentation
CO4	Know basic principle of Ultraviolet spectroscopy & also know electronic transition.
CO6	Understand basic knowledge of infrared spectroscopy

CHE-206 (Inorganic Chemistry)	
CO1	Understand structure and properties of inorganic compounds
CO2	Acquire the knowledge of electronic spectroscopy of coordination compounds
CO3	Introduce the concepts of magneto chemistry among the students for analyzing the properties of complexes
CO4	Analyze the optical/electronic spectra of coordination compounds
CO5	Know the prepations, properties and bonding in metal carbonyls
CO6	Explain what are dinitrogen and dioxygen compounds

CHE-207 (Organic Chemistry)	
CO1	Explain general mechanistic consideration of rearrangement reactions
CO2	Discuss mechanism of elimination reactions
CO3	Explain mechanism of metal hydride reduction of saturated and unsaturated Carbonyl Compound in ester and Nitrile
CO4	Discuss Ortho and Para ratio

CHE-208 (Physical Chemistry)	
CO1	Know the foundation of quantum chemistry and Explain on difference between classical and quantum mechanics
CO2	Know treatment of particle in a one-dimensional box based on Quantum mechanics
CO3	Explanation on particles in three-dimension box, harmonic oscillators and numerical
CO4	Define the importance of Phase Diagrams in the field of materials science, Explains the basic definitions and terms in a phase diagram. Basic concept and defines phase, equilibrium, component, degree of freedom and phase rule concepts
CO5	Define the crystal lattice and unit cell, Derive Bragg's equation and explain the different laws of crystallography. Lattices, lattice parameters, and symmetry: The seven crystal systems. Diffraction Intensity: Scattering from atoms, from the contents of a unit cell; structure factor function
CO6	Know Types of photochemical reactions and photophysical process Know about quenching and chemiluminescence

CHE-209 Lab Course (General & Analytical)	
CO1	Determine the value of an oil sample by saponification
CO2	Determine of active chlorine in the given sample of bleaching powder
CO3	Determine of aspirin content in the given tablet
CO4	Analyze the phosphoric acid cola beverage by PH meter

CHE-210 Laboratory Course (Inorganic Chemistry)	
CO1	Describe Semi micro-Qualitative inorganic analysis
CO2	Separation and estimation of metal ion from binary mixture
CO3	Synthesis characterization and estimation of metal ion from, metal complex
CO4	Know to prepare of paper chromatography and determination of RF value

CHE-211 Laboratory Course (Organic Chemistry)	
CO1	Describe single stage preparations of compounds
CO2	Analyze binary mixtures
CO3	Describe method of preparation of P-nitro bromobenzene from Bromobenzene

CHE-212- Laboratory Course (Physical Chemistry)	
CO1	Prepare solutions of desired concentration and volume
CO2	Acquire training of practical on different physical chemistry experiments
CO3	Understand Experimental concept based on conductivity measurements, viscosity, chemical kinetics, polarimetry, refractometry, and potentiometric
CO4	Know how to maintain laboratory safety and cleanliness
CO5	Easily Construct phase diagram for three component system

M. Sc. Chemistry II

Semester III & IV

CHE-313 Structural Elucidation by Spectral Methods	
CO1	Know basic idea of NMR spectroscopy
CO2	Understand ^{13}C nuclear Magnetic Resonance spectroscopy
CO3	Know the application of UV, IR, ^{1}H NMR, ^{13}C NMR and Mass spectroscopy
CO4	Explain basic principle of Mossbauer spectroscopy
CO5	Understands electron spin Resonance spectroscopy basic idea of spectrum

CHEO-314 Organic Synthesis	
CO1	Explain reaction intermediates and preparation and uses of organometallic reagents
CO2	Explain mechanism of different reactions
CO3	Explain concept of oxidation and various oxidative reagents
CO4	Discuss uses organic reagents

CHEO-315- Asymmetric Synthesis and Bio-organic Chemistry	
CO1	Explain the Principles behind asymmetric reactions and methods for the synthesis of optically active compounds
CO2	Explain asymmetric synthesis and its rules
CO3	Explain the general methods used in asymmetric synthesis
CO4	Describe the asymmetric synthesis using the chiral auxiliary component
CO5	Describe the asymmetric synthesis using the chiral auxiliary component
CO6	Define chiral catalysts and their using in asymmetric synthesis
CO7	Understand asymmetric the carbon-carbon bond formation
CO8	Develop interest in Asymmetric synthesis of natural products
CO9	Acquire the basic knowledge of chemistry and the kinetics of enzymes

CHEO-316 (Photochemistry, Free Radicals & Pericyclic Reactions)	
CO1	Explain pericyclic reaction and feature of pericyclic reaction
CO2	Explain different electro cyclic reaction such as 4n and 4n+2 system
CO3	Enhance the basic knowledge of cycloaddition reaction
CO4	Describe photo chemistry of transition such as cis trans isomerism
CO5	Explain intermolecular abstraction of hydrogen.
CO6	Understand route of synthesis for carbon-carbon multiple bonds.
CO7	Explain the basic idea of free radical reaction.
CO8	Explain detection of free radical, radical chain, name reaction such as Sandmeyer reaction, Hunsicker reaction, Mcmurry reaction and Birch reduction

CHEO-417 (Organic Synthesis: Retrosynthetic Approach)	
CO1	Explain basic chemo-, regio-, and stereoselective concepts and apply these in synthesis, as well as construct reactions pathways of complex organic compounds using retrosynthetic analysis
CO2	Apply synthesis methodology to perform advanced organic synthesis
CO3	Propose a multi-step synthesis for a complex organic molecule
CO4	Learn various organic reactions and reagents used in them as tools applied in the art of organic synthesis. To learn retrosynthetic approach towards organic synthesis

CHEO-419 Chemistry of Natural products	
CO1	Understand classification of terpenoid and Carotenoid
CO2	Understand occurrences, isolation of Terpenoid and Carotenoid
CO3	Explain stereochemistry of different molecules such as Citral, Menthol and Geraniol
CO4	Understand general method of structural elucidation degradation classification of nitrogen containing heterocycles ring
CO5	Know stereochemistry and synthesis of nicotine atropine, Quinine Morphine
CO6	Understand stereochemistry, isolation, structure determination, and synthesis of Bile acids Androsterone, Testosterone, Progesterone
CO7	Understand Synthesis of cyanidin chloride, cyanin, Flavones and Flavanol

CHEO-420- Medicinal Chemistry	
CO1	Acquire knowledge of synthesis of various drugs
CO2	Understands the mechanism of action of different classes of medicinal compounds.
CO3	Know structural activity relationship of different class of medicinal compounds.
CO4	Acquire knowledge about the chemotherapy for cancer and microbial diseases and different anti-viral agents
CO5	Understand the drug metabolism pathways and side effect and therapeutic value of medicinal compounds
CO6	Know the mode of action of different anti-fungal, anti-bacterial and anti-viral drugs
CO7	Understand correlating pharmacology of a disease and its relief or cure
CO8	Know relationship between SAR and QSAR
CO9	Learn to interpret and plan synthetic procedures for the preparation of anti-inflammatory, anti-hypertensive, anesthetic, antibiotic and antidiabetic drugs
CO10	Understand analysis of purity of drugs

CHEO-421 Laboratory Course (Organic Qualitative Analysis of Ternary Mixtures)	
CO1	Learn Qualitative analysis of ternary mixture
CO2	Understand separation technique for ternary mixture
CO3	Understand and analyses individual analysis of separated compound from ternary mixture

CHEO-422 Laboratory Course (Organic Multistep Preparations)	
CO1	Know the preparations involving two step reactions
CO2	Know the two-stage synthesis including condensation, cyclocondensation and rearrangements
CO3	Know the separation and purification techniques of the product

CHEO-423- Laboratory Course (Green Synthesis and Structure Elucidation)	
CO1	Learn the basic principles of green and sustainable chemistry
CO2	Acquire Practical training on preparation involving multistep synthetic Sequences by the green protocol
CO3	Acquire Hands-on training on microwave assisted organic synthesis
CO4	Acquire Hands-on training on Ultrasonic Sonicator assisted organic Synthesis (Green protocol)
CO5	Learn alternative solvent media and energy sources for chemical processes.
CO6	Acquire skill for interpretation of FTIR, UV-Visible, ^{1}H and ^{13}C NMR spectra

CHEO-424 Project work (Organic Chemistry)	
CO1	Perform literature survey with experimental detail
CO2	Describe step wise mechanism of synthesis of assigned compound
CO3	Understand spectral analysis of IR, NMR spectra

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Physics

Course Outcomes

B.Sc. First Year

Semester I

Paper I : Mechanics, Properties of Matter	
CO1	Identify fundamental principles in mechanics.
CO2	Illustrate Newton's laws of gravitation and Kepler's laws of planetary motion. Explain viscosity of Fluid, law of energy conservation and applications of Bernoulli's theorems with examples.
CO3	Apply the physical principles of moment of inertia in terms of the mass distribution from the rotational axis to various symmetricalbodies.
CO4	Analyse the properties and applications of elasticity withexperiments.
CO5	Justify the quantitative problem-solving skills in all the topicscovered.
CO6	Develop an intuition towards problems solving and design realisticapplications in the physical world.

Paper II: Heat & Thermodynamics	
CO1	Recall the concepts of Thermodynamics.
CO2	Discuss the behaviour of real gases.
CO3	Compute the thermodynamic quantities associated with differenttypes of processes.
CO4	Explain the working of heat engine, different types of thermometers. Compare types of heat engines and their working; temperaturescales.
CO5	Determine work done, efficiency of heat engines and coefficient of performance of refrigerators, temperatures using different scales and principles of thermometers.

Semester II

Paper IV: Geometrical and Physical Optics	
CO1	Describe and determine concept of cardinal point and different eye pieces
CO2	Explain interference phenomenon of light and its relevant experiments
CO3	Explain concept of diffraction of light and grating d its related Experiments
CO4	Describe polarization of light and its related Experiments

Paper V: Electricity and Magnetism	
CO1	Recall the concepts associated with stationary charges.
CO2	Discuss the atomic view of polarization of matter. Explain thecorrelation in electricity and magnetism.
CO3	Compute the boundary conditions and calculate quantities like current, voltage, power, phase, impedance, etc in DC and AC circuits.
CO4	Classify the phase relations in AC circuits.
CO5	Compare the growth and decay of current in DC circuits.
CO6	Write the phase relations between different parameters (like current, voltage, power and impedance) in simple electronic circuits comprising of resistors, inductors and capacitors.

B.Sc. Second Year

Semester III

Paper VII: Mathematical Methods in Physics	
CO1	Recall the knowledge of calculus, vectors, vector calculus.
CO2	Illustrate methods of solving partial differential equations with theexamples of important partial differential equations in Physics.
CO3	Apply the various methods for solving differential equations in various physical problems such as in quantum mechanics, which theywill learn in future courses in detail.
CO4	Explain the Fourier analysis of periodic functions and reconstructphysical problems such as vibrating strings etc.
CO5	Determine transformation equations and construct various coordinate systems. Compare cartesian, spherical and cylindrical coordinate systems.
CO6	Formulate the special functions, such as the Hermite polynomials,the Legendre polynomials and Bessel functions and their differential equations.

Paper VIII: Modern and Nuclear Physics	
CO1	Explain Photoelectric Effect and its applications in various processes
CO2	Describe X- Ray radiation and its spectra
CO3	Explain theoretical aspect of Atomic mass, nuclear fission and Energy released in nucleus
CO4	Describe Particle accelerator, Cyclotron and Deuterons
CO5	Define and describe basic properties of the nucleus.
CO6	Explain the concept of radioactivity. Classify different radiation detectors and nuclear models.
CO7	Solve problems related to nuclear and particle physics.
CO8	Explain nuclear reaction dynamics, nuclear reactors and accelerators.
CO9	Compare nuclear energy with other energy sources.
CO10	Specify applications of accelerators and detectors. Compile knowledge of elementary particles to understand nuclear phenomena.

Semester IV

Paper XI: General Electronics	
CO1	Describe semiconductors, Zener diode, Transistor and give its application
CO2	Explain Amplifier, RC coupling and Transistor biasing and discuss its applications
CO3	Describe theoretical and practical aspects of Oscillator and Multi-vibrator
CO4	Elaborate modulation, FM Modulation and AM wave

Paper XII: Solid State Physics	
CO1	List seven crystal systems.
CO2	Explain free electron theory and band theory.
CO3	Calculate lattice parameter from given XRD pattern.
CO4	Identify the structure of materials.
CO5	Evaluate the density of the state equation in 3D.
CO6	Specify the importance of magnetic materials.

B.Sc. Third Year

Semester V

Paper XV: Classical and Quantum Mechanics XV	
CO1	Describe methods of solving equations of motions.
CO2	Explain the necessity of considering constraints.
CO3	Apply different techniques to find solutions to problems inMechanics.
CO4	Compare and contrast Newtonian, Lagrangian and Hamiltonianapproaches.
CO5	Determine the constraint equations and decide the generalizedcoordinates to be used.
CO6	Hypothesize rotating frames of references.
CO7	Recall and explain the phenomena like black body radiation, photoelectric effect, Compton effect, diffraction of photons/electronsfrom one/two slits, pair production etc.
CO8	Explain the quantum statistics and differentiate between classical andquantum statistics.

Paper XVI : Classical Electrodynamics	
CO1	Define electric fields, electric potential, displacement vector, electricPolarization.
CO2	Articulate concepts of evaluating electric fields due to line charge, surface charge and volume charge using Coulomb's law and Gauss's law. Explain mechanism of polarization in dielectrics.
CO3	Demonstrate special techniques to calculate potential due to some charge distribution.
CO4	Explain motion of charged particles in the electromagnetic field. Deduce Biot Savart's law from Ampere's law.
CO5	Compare magnetic properties of material on the basis of total spin of electrons in atoms.
CO6	Compile Maxwell's set of equations and develop electromagnetic plane wave equations.

Semester VI

Paper XIX: Atomic and Molecular Physics	
CO1	Recall and recognize the gradual development of the Atomic theoryand distinguish between various atomic models.
CO2	Explain the effect of magnetic field on atomic spectra.
CO3	Solve the problems in Atomic theory.
CO4	Relate atomic theory to analyze spectra.
CO5	Evaluate spectroscopic data to identify elements using atomicspectra.
CO6	Develop mathematical treatment for the Bohr atom, Zeeman effectand Raman spectra.

Paper XX: Non-conventional energy sources and Optical fiber	
CO1	Explain the concept of technologies of non-conventional sources of energy
CO2	Describe various renewable energy technology
CO3	Discuss non-conventional energy sources: Biomass, wind energy, tidal energy Ocean. geothermal energy and solar energy
CO4	Elaborate the concept of solar energy and its applications in various fields
CO5	Describe structures of optical fibers
CO6	Describe fiber fabrication techniques and testing of optical fiber cables

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Economics

Course Outcomes

B.A. First Year

Semester I & II

Paper I : Micro Economics	
CO1	Discuss basic concepts of Economics
CO2	Discuss basic aspects of Demand and Supply Theories
CO3	Analyze consumer's behavior
CO4	Discuss basic aspects of consumer's equilibrium
CO5	Analyze and explain market equilibrium

Paper II : Indian Economy	
CO1	Discuss broad features of the Indian Economy
CO2	Identify major issues related to population and population policy
CO3	Define natural resources in India
CO4	Describe nature and types of unemployment and concept of poverty
CO5	Explain new economic reforms and concept of globalization

Paper III: Price Theory	
CO1	Discuss concept of Production function
CO2	Analyze cost and Revenue
CO3	Classify market in various types
CO4	Evaluate theories of distribution
CO5	Understand meaning and related concepts of factor pricing

Paper IV: Money Banking and Finance	
CO1	Explain basic aspect about money
CO2	Evaluate principle of Commercial Banks and Banking Structure in India
CO3	Discuss New Concepts in banking sector
CO4	Discuss functions of Reserve Bank of India
CO5	Define the term money market and capital market

B. A. Second Year
Semester III & IV

Paper V: Macro Economic	
CO1	Discuss basic aspects of macro-Economics
CO2	Describe concept of National Income
CO3	Explain theory of money and identify the index number
CO4	Explain theories of employment
CO5	Explain Keynesian theory of employment and Nature of trade cycle

Paper VI : Economics of Development	
CO1	Discuss concept of economic development and growth
CO2	Analyze theories of Adam Smith and Malthus
CO3	Give factors in development process
CO4	Get aware about Models of Economic Growth
CO5	Explain role of sector approach in Economic Development

Paper VII : Public Finance	
CO1	Discuss nature, scope and importance of public finance
CO2	Explain Public Revenue
CO3	Comprehend public expenditure
CO4	Describe concept, source, causes and effects and importance of public debt
CO5	Explain meaning, objective and components of Union Budget

Paper VIII: Statistical Methods	
CO1	Analyze collection of data – Primary and Secondary data
CO2	Describe types of series – simple, Discrete and continuous series
CO3	Discuss Arithmetic mean – its merits and demerits, mode and median
CO4	Evaluate Range, mean deviation and standard deviation
CO5	Explain variance and Co-efficient of variation

B.A. Third Year
Semester V & VI

Paper IX : International Economics	
CO1	Explain basic concept of international economics
CO2	Describe Gains from trade
CO3	Discuss types of tariffs and quotas
CO4	Evaluate concept and components of balance of payment
CO5	Discuss Demerits and limitations of devaluation

Paper X : Agriculture Economics	
CO1	Discuss the role and importance of Agriculture
CO2	Describe various technologies used in Agriculture
CO3	Explain Government Agriculture Policies
CO4	Acquire knowledge of Indian agricultural development from last 50 years

Paper XI: History of Economic Thought	
CO1	Explain concept of Mercantilism
CO2	Sketch out Adam Smith division of labour and theory of value
CO3	Comprehend Tomas R. Malthus – theory of population
CO4	Describe Karl Marks theory of dynamics of social change, theory of surplus value
CO5	Explain concept of aggregate economy and the role of fiscal policy

Paper XIII :Research Methodology	
CO1	Discuss meaning, nature, scope and objectives of social science research
CO2	Describe Facts – features Primary data collection
CO3	Discuss motivating factors of social research
CO4	Comprehend meaning and need of research design

Paper XIV: Industrial Economics	
CO1	Discuss importance and role of Industries in Economic and social development
CO2	Know industrial organization, ownership structure
CO3	Analyze location and dispersion of industries
CO4	Explain composition of industrial sector

Paper XIV: Indian Economic Thinker	
CO1	To introduce of economic development of thoughts
CO2	To explain of economic theories
CO3	To understand Indian economic view

Paper XII & XVI : Project Work	
CO1	To search the problem
CO2	To solve the problems scientifically
CO3	To recommend on the basis of analyzed data.

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of History

Course Outcomes

B.A. First Year

Semester I & II

Paper I: Shivaji and His Times (1630 to 1707 A.D.)	
CO1	Explain formation of welfare state during the Maratha rule
CO2	Discuss industrial agricultural aspects of Chhatrapati Shivaji 'regime
CO3	Explain administrative aspects of the Swarajya
CO4	Elaborate inspiration behind the establishment of Swarajya
CO5	Explain reasons behind Chhatrapati Shivaji's early conflicts with the regional lords and the outsiders
CO6	Discuss Maratha war of independence.(1689 to 1707A.D.)

Paper II: History of Modern Maharashtra (1818 to 1905 A.D.)	
CO1	Discuss history of modern Maharashtra
CO2	Evaluate renaissance and social reform movement in Maharashtra
CO3	Explain early political awakening of freedom struggle in Maharashtra
CO4	Discuss British administration in Bombay presidency
CO5	Identify social institutions of 19^{th} Century

Paper III: History of Marathas (1707 A.D. TO 1818 A.D.)	
CO1	Discuss importance of the Maratha history in 18^{th} century
CO2	Asses circumstances under which rise of the Peshwa took place
CO3	Explain political scenario of the Maratha power in the 18^{th} century
CO4	Evaluate policies adopted by early Peshwas
CO5	Explain circumstances of the Maratha power at battle of Panipat
CO6	Explain reasons of political disintegration of the Maratha
CO7	Discuss nature of Anglo-Maratha relations

Paper IV: 20th Century Maharashtra (1905 A.D. – 1960 A.D.)	
CO1	Explain salient features of 20 the century Maharashtra
CO2	Evaluate consolidation of British power in Maharashtra
CO3	Analyze social religious, consciousness in Maharashtra
CO4	Discuss freedom struggle in Hyderabad state specially in Marathwada region
CO5	Differentiate the Dalit movement and non Brahmin movement
CO6	Explain salient features of 20 the century Maharashtra

B.A. Second Year

Semester III & IV

Paper V: History of early India (up to 300 B.C.)	
CO1	Describe Prehistory and Proto-history
CO2	Classify urbanization in the Genetic Basin
CO3	Classification of Buddhism and Jainism
CO4	Acquire knowledge about Sanskrit, Pali literature
CO5	Identify Early Indian Maps

Paper VI: History of Delhi Sultanat (1200A.D. to 1526 A.D.)	
CO1	Students of history will learn about the foundation, expansion and consolidation of the Sultanate of Delhi and also to the downfall of the Delhi Sultanate.
CO2	will learn towards the emergence of provincial dynasties & Consolidation of regional identities like, Bahamanis, Vijayanagar and Bengal.
CO3	They also acquire the knowledge about the Changing scenarios of the urban and rural societies after consolidation of the rule of the Sultanate of Delhi.
CO4	They can learn about the activities of Delhi Sultanate i.e., revenue systems monetization, market regulations, growth of urban centres, trade and commerce, Indian Ocean trade etc.

Paper VII: History of early India (300 B.C.TO 650 B.C.)	
CO1	Describe the rise of Maurya Empire and administration along with details of life of people in that period.
CO2	Categorize the impact Indo-Greek kingdoms in Ancient India.
CO3	Classify and compares between Guptas and other kingdoms of the period and analyses the debate of the Golden Age
CO4	Identify the growth of Indian feudalism during and after Harshawardhan period.
CO5	Appraise the nature of south Indian political power.

Paper VIII: History of Mugal India (1526A.D.TO 1757 A.D.)	
CO1	Students of history will learn about the foundation, expansion and consolidation of the Sultanate of Delhi and also to the downfall of the Delhi Sultanate.
CO2	will learn towards the emergence of provincial dynasties & Consolidation of regional identities like, Bahamanis, Vijayanagar and Bengal.
CO3	They also acquire the knowledge about the Changing scenarios of the urban and rural societies after consolidation of the rule of the Sultanate of Delhi.
CO4	They can learn about the activities of Delhi Sultanate i.e., revenue systems monetization, market regulations, growth of urban centers, trade and commerce, Indian Ocean trade etc.

B.A. Third Year

Semester V & VI

Paper IX: Historiography	
CO1	Write articles on historical topics, Writings History and Techniques of historical Writing
CO2	Developed their ability to access critically historical analysis and argument past and present
CO3	Gained an understanding of the development of the academic study of history
CO4	Throughout the world since the later eighteenth century
CO5	Explain recent and contemporary debates in the theory and practices of historical writings

Paper X : History of National Movement (A.D. 1885-1947)	
CO1	Explain early political awakening in Indian freedom struggle
CO2	Discuss origin and development of Indian national congress
CO3	Explain various phases of the national movement
CO4	Identify difference between moderates, extremists and revolutionaries
CO5	Comprehend socio-religious scenario and the social reformation
CO6	Discuss freedom movement under the Mahatma Gandhi's leadership
CO7	Explain Revolutionary movement in India
CO8	Discuss evolutionary process of constitutional developments

Paper XI : Women Struggle in Modern India	
CO1	Discuss women contribution in Indian freedom struggle
CO2	Explain actual condition of women in Colonial period
CO3	Discuss past and present existing social, political, religious and economic condition of women in modern India
CO4	Explain various superstitions, wrong traditions related to women in modern Indian history
CO5	Discuss women contribution in Indian freedom struggle

Paper XII : Fields of History	
CO1	Explain advance and assist Archaeological research
CO2	Discuss participation in archaeology throughout society, identifying and addressing barriers to inclusivity
CO3	Explain various career opportunities in the field of Museology, and tourism
CO4	Identify various types of career opportunities in the field of Tourism, Archaeology Museology etc
CO5	Explain advance and assist Archaeological research

Paper XIII: Fields of History	
CO1	Explain advance and assist Archaeological research
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CO3	Explain various career opportunities in the field of Museology, and tourism
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CO5	Explain advance and assist Archaeological research

Paper XIV: Landmarks in the History of Modern World	
CO1	Discuss rise of Modern World
CO2	Classify growth of capitalism
CO3	Identify world maps –Oceanic Explorations, Europe in 1815, important stages of World War, and important centres of International trade
CO4	Explain rise and development of Democracy in modern world
CO5	Discuss freedom struggle in America, French, Russia, China, India and other part of the world

Paper XV: Glimpses of the history of Marathwada	
CO1	Discuss salient features of history of Marathwada
CO2	Analyze contribution of Marathwada in Hyderabad Freedom Struggle
CO3	Discuss Marathwada freedom struggle with Indian freedom Struggle
CO4	Explain women contribution of Marathwada in freedom struggle
CO5	Identify socio- religious movements in Marathwada

M.S.P. Mandal's

R.B. Attal Arts, Science & Commerce College, Georai

Department of Public Administration

Course Outcomes

B.A. First Year

Semester I & II

Paper I - Principles and Concepts of Public Administration	
CO1	Explain meaning, nature and scope of Public Administration.
CO2	Differentiate between Public and Private Administration.
CO3	Explain meaning and forms of Organization.
CO4	Describe different Principles of Organization.
CO5	Identify concepts of Public Administration like Leadership, communication, supervision etc.

Paper II - Public Administration in India	
CO1	Explain historical evolution and current global scenario of Indian Administration.
CO2	Explain the constitutional framework, fundamental rights and duties.
CO3	Discuss structure and function of Rajya sabha and Loksabha.
CO4	Explain the structure and function of Indian judiciary/Supreme courts.

Paper III- Maharashtra Administration	
CO1	Discuss formation of Maharashtra State and its administrative features.
CO2	Describe structure and functions of the state Executive and legislative.
CO3	Analyze structure and functions of the state judiciary.
CO4	Identify relevance of Constitutional and Statutory bodies at the state level such as MPSC, Maharashtra Finance Commission, Election Commission etc.

Paper IV – District Administration	
CO1	Explain evolution and importance of District Administration.
CO2	Explain the various functions of District Collector.
CO3	Discuss changing role of district collector.
CO4	Identify various aspects of the concept Law and Order and it's Principles.
CO5	Understand functioning of revenue administration.
CO6	Understand functioning and issues of district police administration.

B.A. Second Year

Semester III & IV

Paper V– Personnel Administration	
CO1	Explain the meaning and function personnel administration and public services in India.
CO2	Identify the role of personnel training institutions such as YASHDA, MPA and LBSNAA.
CO3	Discuss personnel grievance redressal mechanism in India CVC.
CO4	Comprehend with the problems of personnel administration in India.
CO5	Explain relevance of administrative tribunal mechanism in India CAT, MAT

Paper VI – Panchayati Raj and Rural Development	
CO1	Discuss basic concept and history of Local Self Government in India.
CO2	Discuss on Panchayat Raj system structure and function in Maharashtra.
CO3	Explain composition and function of state Rural Development Ministry.
CO4	Acquaint concept and Program of Rural Development.
CO5	Describe Problems of Rural area.
CO6	Discuss the financial resources of local self-government**.**

Paper VII – Financial Administration	
CO1	Explain basics of information financial administration as well as importance of the finance ministry.
CO2	Comprehend process and importance of budget.
CO3	Describe major accounts and audit mechanism in India.
CO4	Explain methods and importance of parliamentary control over financial administration in India.
CO5	Discuss concept of Liberalization, Privatization and Globalization.

Paper VIII – Urban Local Self Government and Urban Development	
CO1	Discuss basic concept of urban local self-Government in India.
CO2	Understand the causes of urbanization**.**
CO3	Explain urban local self-Government system in Maharashtra.
CO4	Acquaint Urban Development Agencies in Maharashtra.
CO5	Describe the problems of urban area.
CO6	Identify major Urban Development Program.

B.A. Third Year

Semester V & VI

Paper IX – Human Resource Development	
CO1	Explain nature, scope, structure and processes of human resource development
CO2	Discuss changing paradigms of human resources development.
CO3	Understanding means of human resource development.
CO4	Explain the human resource management and it's objective.
CO5	Discuss on recruitment process.
CO6	Explain importance of human resource planning.

Paper X – Educational Administration in India	
CO1	Discuss objectives and importance of Education.
CO2	Describe historical background of Education in the light of various Committee's recommendations and government policies.
CO3	Identify role of Quality Control Institutions, such as NAAC and AICTE, in Higher Education.
CO4	Describe structure, relevance and the present Scenario of Higher Education.
CO5	Analyze impact of Globalization on Higher Education in India.

Paper XI– Administrative Thinkers	
CO1	Discuss F. W. Taylors concept of Scientific Management.
CO2	Understand Feyols elements and Principles of Management.
CO3	Describe Max Weber's Ideal Model of Bureaucracy.
CO4	Explain Mary Follet's ideas of Authority, Conflict and Integration
CO5	Describe Elton Mayo's Hawthorn Experiment or Human Relation Theory.
CO6	Examine Herbert Saiman behavioral approach and Decision-Making approach.
CO7	Explain Ecological approach and concept of Prismatic Society by F. W. Riggs.

Paper XIII– Public Policy and Development	
CO1	Explain concept of Public Policy.
CO2	Discuss role of internal determinants in the formulation of Public Policy.
CO3	Discuss role of Executive and Bureaucracy in the implementation of Public Policy.
CO4	Explain concept of Development and Sustainable development.
CO5	Understanding central government development policies – Food policy, Water policy, Land Reform.
CO6	Describe challenges before Development.

Paper XIV - Health Administration in India	
CO1	Explain organizational elements, structure, performance, and terminology and delivery modalities for India healthcare systems.
CO2	Understanding structure and interdependence of healthcare system elements and issues using critical thinking to formulate innovative system designs that improve healthcare delivery.
CO3	Explain the role and facilities of NRHM.
CO4	Explain the challenges before Indian health care system.

Paper XV - Recent Trends in Public Administration and Important Laws	
CO1	Discuss concept of New Public Administration and New Public Management.
CO2	Explain Public Choice Approach and the relevance and role of the Civil Society.
CO3	Explain meaning and importance of the Citizen Charter.
CO4	Discuss concept and its relevance of Good Governance, E-Governance and Disaster Management.
CO5	Discuss important Laws such as Civil Rights Protection, Consumer Protection, Environment Protection, and Right to Public Services.

Paper XII & XVI - Project Work	
CO1	Develop problem solving abilities and communications skill.
CO2	Understanding of the social, political, economic, and cultural factors and its influence on public administration.
CO3	Develop ability to effectively communicate, both in research writing as well as terminology, facts, concepts, and theories used in the field of public administration.
CO4	Create awareness social, administrative issues and policies.

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R.B. Attal Arts, Science & Commerce College, Georai
Department of Sociology
Course Outcomes

B.A. First Year
Semester I

Paper I: Introduction to sociology	
CO1	Explain concepts of theoretical perspectives in sociology and how they are used in sociological explanations of social behavior
CO2	Describe how social interactions are influenced by local, regional, national, and global cultures
CO3	Describe origin and the development of sociology in general and development in India in particular
CO4	Elaborate various approaches and principles of sociology
CO5	Give importance and uses of sociology in present society

Paper II: Individual and Society	
CO1	Give Importance of Indian culture and Socialization
CO2	Describe concept of social Structure
CO3	Elaborate origin of caste system
CO4	Explain factor of social change and social control
CO5	Write concept of conformity and deviance

Semester II

Paper III: Introduction to subfield of sociology	
CO1	Give Importance of Scope
CO2	Describe concept of social psychology
CO3	Elaborate origin of the political sociology
CO4	Explain factor of anthropology
CO5	Write concept of applied sociology

Paper IV: Indian Social Composition	
CO1	Explain features of Indian society
CO2	Describe population factor & Impact
CO3	Write importance of Secularism in Indian society
CO4	Elaborate structure of rural society in India
CO5	Give importance of Democracy in India

B.A. Second Year
Semester III

Paper V:Problems of rural India	
CO1	Explain Problems of rural women
CO2	Describe Domestic violence law
CO3	Explain education Dropout in rural area
CO4	Give India rural area Economy
CO5	Elaborate major issue in Development

Paper VII: Contemporary Urban issues	
CO1	Explain concept of Urbanization
CO2	Elaborate cause and impact of Indian Migration
CO3	Explain various types of urban planning
CO4	Give importance of Globalization
CO5	Evaluate urban change

Semester IV

Paper VII : Population in India	
CO1	Explain basic concepts of Indian population
CO2	Describe density of population in India
CO3	Write on human population dynamics
CO4	Elaborate population growth and environment
CO5	Give importance of population policy in India

Paper VIII: Sociology of development	
CO1	Describe conceptual perspectives on development
CO2	Explain concept of sustainable development
CO3	Write on problems of Poverty & Unemployment,
CO4	Elaborate view of capitalist socialist and mixed approaches
CO5	Give importance Impact of Government schemes in India

B.A. Third Year
Semester V

Paper IX : Sociological Tradition	
CO1	Give Scope industrial revolution
CO2	Describe French revolution
CO3	Explain theory low of three stages
CO4	Elaborate Durkheim theory of suicide
CO5	Describe theory of Karl Marx's Class struggle

Paper X : Introduction to research methodology	
CO1	Give Scope and Importance of Social Research
CO2	Describe Types of Research
CO3	Explain Scientific Research Process
CO4	Elaborate difference between Theory and Research
CO5	Describe problem of objectivity in Research

Paper XI : Urban Sociology	
CO1	Give Scope and Importance of Urban Sociology.
CO2	Understand the profile of urban community
CO3	Explain the Urban Development process
CO4	Elaborate Burges theory of Concentric zone
CO5	Describe theory of Robert louise wirth urbanism

B.A. Third Year
Semester VI

Paper XIII: Sociological Theories	
CO1	Explain theory of social action
CO2	Elaborate Robert matrons theory of role set
CO3	Describe Lewis Coser theory of violence
CO4	Explain symbolic interaction theory
CO5	Write on theory of power and authority

Paper XIV: Social Research Methods	
CO1	Explain techniques of Sociological Investigation
CO2	Describe use of computer in social research
CO3	Describe introduction of SPSS
CO4	Elaborate utility of social research
CO5	Give use of internet in social research

Paper XV: Urban Society in India	
CO1	Explain the growth of urban population
CO2	Describe the concept of rural urban migration
CO3	Explain the problems of slums and housing
CO4	Elaborate causes & Effects pollution
CO5	Explain deference between rural and urban society in India

Paper XII & XVI : Project Work	
CO1	Write Importance of research culture
CO2	How collects data in field work
CO3	Describe impact of problems on society
CO4	Elaborate importance of research methodology

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R.B. Attal Arts, Science & Commerce College, Georai

Department of Commerce

Course Outcomes

B.Com First Year

Semester I & II

Business & Industrial Economics-I Upon completion of the course, the students will able to-	
CO1	Identify the consumer behaviour for their competitive approach
CO2	Calculate the benefits of economics and its theories in setting the objectives of business firm
CO3	Determine the concept of equilibrium to consumer satisfaction & factors price determination
CO4	Identify the limits of economic analysis
CO5	To conduct economic analysis using graphs
CO6	Identify various types of competition in market and determine the strategic approach of firm
CO7	Discuss the application of marginal analysis

Entrepreneurship Development-I Upon completion of the course, the students will able to-	
CO1	Identify the consumer behaviour for their competitive approach
CO2	Calculate the benefits of economics and its theories in setting the objectives of business firm
CO3	Determine the concept of equilibrium to consumer satisfaction & factors price determination
CO4	Identify the limits of economic analysis
CO5	To conduct economic analysis using graphs
CO6	Identify various types of competition in market and determine the strategic approach of firm
CO7	Discuss the application of marginal analysis

Financial Accounting –I **Financial Accounting –II** Upon completion of the course, the students will able to-	
CO1	Write difference between hire purchase system and instalment purchase method
CO2	Prepare Final Statements of Accounts of sole trader and solicitor
CO3	Able to prepare Final Accounting of Non-trading
CO4	Perform calculation and payments concern in case of Royalty Undertakings

Computer Application in Business – I **Computer Application in Business – II** Upon completion of the course, the students will able to-	
CO1	Calculate Computers different number system
CO2	Explain and Correlate the Computers High-Level, Low-Level, Assembly-Language
CO3	Describe Word Document and Various Functions of Word
CO4	Calculate numerical examples in Excel and different Functions of Excel Sheet
CO5	Explain different Functions to crate the PPT Presentation, Slide Effects in PowerPoint

Semester II

Business Organization & Management –II Upon completion of the course, the students will able to-	
CO1	Determine basic concepts of management
CO2	Identify the functions of management in business
CO3	Give planning and Decision making in business organization
CO4	Determine importance of motivation & communication
CO5	Determine as an individual a smart and self esteemed

Entrepreneurship Development -II Upon completion of the course, the students will able to-	
CO1	Determine the activities in setting-up enterprise
CO2	Evaluate elements of company structure
CO3	Give procedures to create new ideas which consist of brainstorming activities, focus groups, research

Business Mathematics & Statistics –II Upon completion of the course, the students will able to-	
CO1	Describe the results of collected data by using mathematical and statistical literacy
CO2	Calculate the correlation of Coefficient with various methods
CO3	Calculate the probability of any event
CO4	Identify regression of any event

B.Com. Second Year
Semester III

Principle of Business Management -I Upon completion of the course, the students will able to-	
CO1	Determine correct action plan for successful execution of task
CO2	Identify qualities of HR and classify HR according to requirement of task skills
CO3	Describe principles of management in application of its functions in daily activity
CO4	Determine periphery of designation and calculate authoritative actions

Business Regulatory Framework – I Upon completion of the course, the students will able to-	
CO1	Determine correct and lawful object for making of contract
CO2	Identify and differentiate various types of valid contract with enforceability
CO3	Calculate risk of absence of any element essential for enforceability of valid contract
CO4	Describe significance of consideration for a promise
CO5	Classify various concepts of in mercantile law

Marketing Management (Elective) Upon completion of the course, the students will able to-	
CO1	Identify various marketing avenues for the purpose of increase sale
CO2	Identify the requirement of optimum marketing skill in business
CO3	Importance of marketing mix and distribution channel
CO4	Identify the scope of marketing management
CO5	Give proper planning for agriculture marketing

I.T Application in Business- I **I.T Application in Business –II** Upon completion of the course, the students will able to-	
CO1	Elaborate Importance of Tally and Computerized Accounting
CO2	Identify and create voucher entry, Payment voucher, Receipt voucher, Credit and Debit Note
CO3	Explain e-commerce and its applications
CO4	Describe online shopping and E – marketing
CO5	Explain Electronic Business and E- commerce

Semester IV

Principle of Business Management –II Upon completion of the course, the students will able to-	
CO1	Evaluate significance of two way communication in any business
CO2	Describe proper hierarchy of management and identify correct protocol of reporting
CO3	Identify qualities and role of leaders
CO4	Describe the stages in motivation

Business Regulatory Framework – II Upon completion of the course, the students will able to-	
CO1	Describe various concepts in contract of sale
CO2	Determine the various negotiable instruments for performing the contract
CO3	Identify the redresser machinery for consumer protection
CO4	Identify the various rights of human

Corporate Accounting – I **Corporate Accounting – II** Upon completion of the course, the students will able to-	
CO1	Differentiate equity share capital and preference share capital
CO2	Explain process of Issue of Debenture and Redemption of Debentures
CO3	Classify expenses and Income as well as Assets and liabilities to Prepare final statement of Accounts
CO4	Explain process of reconstruction and liquidation
CO5	Elaborate process of amalgamation absorption and holding of companies and relationships between them

Insurance (Elective) Upon completion of the course, the students will able to-	
CO1	Identify types and scope of insurance
CO2	Life Insurance and their benefits
CO3	To study of General Insurance like marine, motor, health, crop, group etc.
CO4	Identify the qualities for insurance agent
CO5	Identify the recent trends in insurance sector in india

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Semester V

Cost Accounting – I Upon completion of the course, the students will able to-	
CO1	Determine per cost of units
CO2	Explain quality strategy to reduce the cost of product and increase the level of profit by maintaining quality of goods
CO3	Explain methods of distribution of Overhead
CO4	Identify methods of time keeping and time booking for labour control

Direct & Indirect Taxes- I **Direct & Indirect Taxes – II** Upon completion of the course, the students will able to-	
CO1	Calculate taxable amount for tax payment
CO2	Determine tax exemption and increases amount for saving
CO3	Describe and differentiate tax amount under various leads
CO4	Evaluate application of fiscal policy and determine policy for tax planning
CO5	Classify tax amount according to tax slab rates

Management Accounting –I Upon completion of the course, the students will able to-	
CO1	Calculate various methods of ratio analysis
CO2	Differentiate fund flow and Cash flow Statement
CO3	Prepare cash budget, flexible budget and different activities budget
CO4	Explain difference between Management Accounting and Financial Accounting

Advance Financial Accounting- I Upon completion of the course, the students will able to-	
CO1	Determine concept of Social accounting
CO2	Identify allocation of Departmental Expenses
CO3	Identify Purchase and sales of investment before the date of payment of cum-interest and ex-interest
CO4	Classify forms of balance sheet as per scheduled sated Form A and Form B in Bank Final Account

New Auditing Trends- I Upon completion of the course, the students will able to-	
CO1	Explain Duties and Liabilities of Company Auditor
CO2	Describe methods of verification as per audit standards
CO3	Classify vouching process according to the expectation of board of auditors
CO4	Evaluate transparency and calculate interdepartmental malpractices

Information and Communication Technology – I **Information and Communication Technology – II** Upon completion of the course, the students will able to-	
CO1	Explain Structure of C programming, data types and C tokens
CO2	Define and declare arrays, single dimensional and multi-dimensional
CO3	Describe Internet banking system in India, types of E- payment cards
CO4	Explain E banking – NEFT, RTGS and security in e banking- SSL and Firewalls
CO5	Describe ERP models or products, BPO and knowledge management IT's life cycle

Semester VI

Cost Accounting –II Upon completion of the course, the students will able to-	
CO1	Calculate process cost to reduce the unnecessary expenditure in process of production
CO2	Describe elements of cost and classify it to apply strategic approach in reduction of cost and improvement in level of productivity
CO3	Calculate work in progress profit on Contract
CO4	Classify Reconciliation of Cost and Financial Accounts

Management Accounting –II Upon completion of the course, the students will able to-	
CO1	Prepare capital budget
CO2	Identify Cash Budget
CO3	Explain pay-back period method
CO4	Describe benefits of Responsibility Accounting

Advance Financial Accounting –II Upon completion of the course, the students will able to-	
CO1	Describe Stock market and procedure of D-mat Accounts
CO2	Determine Insolvency of an Individual and preparation of accounts as per act
CO3	Identify rules regarding application of cash and accrual basis system in Local Government Accounts
CO4	Classify accounts of farm accounting of Dairy and Poultry with special adjustment

New Auditing Trends –II Upon completion of the course, the students will able to-	
CO1	Determine style of presentation of report writing
CO2	Explain importance of Human Resource Audit
CO3	Describe difference between Audit and Investigation
CO4	Explain Auditor's role under Income Tax Act