

NAM COLLEGE KALLIKKANDY

(Accredited by NAAC with 'B' Grade) Vidyagiri, P O Kallikkandy, Kannur Dist., PIN 670693

PROGRAMME OUTCOMES, PROGRAMME SPECIFIC OUTCOMES FOR ALL PROGRAMMES COURSE OUTCOMES FOR ALL COURSES (2017-18 & 2018-19)

SL No	Course	Page no
1	BA ENGLISH	<u>2</u>
2	MA ENGLISH	<u>11</u>
3	<u>B A HISTORY</u>	<u>15</u>
4	<u>B Sc MATHEMATICS</u>	<u>19</u>
5	M.Sc MATHEMATICS	<u>28</u>
6	B.Sc POLYMER CHEMISTRY	<u>33</u>
7	<u>B. COM</u>	<u>38</u>
8	<u>M.COM</u>	<u>46</u>
9	<u>B.B.A</u>	<u>53</u>
10	B.Sc COMPUTER SCIENCE	
11	M.Sc COMPUTER SCIENCE	
12	STATISTICS	
16	ORIANTAL LANGUAGES	

	BA ENGLISH <u>CONTENT PAGE</u>
	PO 1 Critical Thinking:
	1.1. Acquire the ability to apply the basic tenets of logic and science to thoughts, actions and interventions.
	1.2. Develop the ability for progressive action after recognizing the presence of hegemonic ideology within certain dominant notions
	1.3 Develop self-critical abilities and also the ability to view positions, problems and social issues from plural perspectives.
	PO 2 Effective Citizenship:
	2.1. Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic.
PROGRAMME	2.2. Develop and practice gender sensitive attitudes, environmental awareness, empathetic social awareness about various kinds of discriminations.
OUTCOME (PO)	2.3. Internalise certain highlights of the nation's and region's history.
(10)	PO3 Effective Communication:
	3.1. Acquire the ability to speak, write, read and listen clearly in person and through electronic media in both English and in one Modern Indian Language
	3.2. Learn to articulate, analyze, synthesize, and evaluate ideas and situations.
	3.3. Generate hypotheses and articulate assent or dissent by employing both reason and creative thinking.
	<u>P04 Inter disciplinarily:</u>
	4.1. Perceive knowledge as an organic, comprehensive, interrelated and integrated faculty of the human mind.
	4.2. Understand the issues of environmental contexts and sustainable developments a basic interdisciplinary concern of all disciplines.
	4.3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solving

Semester	Course Code	Course title	Course outcome
Ι	1A01ENG COMMON	COMMUNICATIVE ENGLISH - I	 CO.1. To help the students to select and use a variety of speaking, listening, and writing and listening strategies. CO.2. To aid in an overall development of knowledge and understanding of English Grammar and Phonetics . CO.3. To familiarize the students with the basics of oral communication and thus develop their ability to use English for performing vital communicative functions in academic, social and professional situations and to develop global intelligibility. CO.4. To follow the writing conventions correctly.

Semester	Course Code	Course title	Course outcome
Ι	1A02ENG COMMON	LANGUAGE THROUGH LITERATURE I	 CO1. To improve students' insights about literature, humanity and social values in conjunction with the mechanics of writing such as grammar, register, generic conventions and disciplinary guidelines CO2. To enable the students to think critically about major issues raised in the reading. CO3. To develop the skills of analysis synthesis, evaluation, interpretation, inference and application needed to fully appreciate a writer's ideas. CO4. To highlight the reciprocity of the relationship between writing and reading.
			CO5. To develop critical insights and faculties and to examine a work from various critica perspectives and initiate problem-solving activities through the use of lexical exercise
			CO1. To teach the student to examine the ways in which different social, economic, political and cultural events have informed literary activity in English and to provide students with a historical sense of the evolution of the English Language.
			CO2.To help students historically conceptualise literature
		HISTORY OF	CO3. To acquire a comprehensive views of broad periods of English Literature
I	1B01ENG	ENGLISH LANGUAGE AND LITERATURE	· ·
			CO5. To draw attention to the key points or conjunction between the internal dynamics or the language and the external forces.
			CO6.To focus on specific ways in which language has shaped the reactions, perceptions, and beliefs of local, national and globa communities.

Semester	Course	Course title	Course outcome
	Code		
Π	2A03ENG COMMON	COMMUNICATIVE ENGLISH II	 CO1. To equip the students with a command of the English language through learner centred and activity oriented methods. CO2. To train the student in basic research, taking part in academic discussions, writing academic assignments, presenting at student seminars, managing studies, including time management and learning to use English in a range of study contexts. CO3. To apply oral communication skills to interviews, group presentations, formal presentations, and impromptu situations. CO4. To train the student to write fluently for a variety of occasions, audiences and purposes, making appropriate choices regarding style, tone, level of detail and organization.
Π	2A04ENG COMMON	LANGUAGE THROUGH LITERATURE II	 CO1. To enhance the awareness of students regarding vital issues pertaining to the environment. CO2. To sensitize students about the continuing nature of global environmental problems. CO3. To initiate concrete action to save the environment and to instill civic consciousness CO4. To enhance vocabulary from their context in the reading, evolving a content-based approach which will subsequently help the students to use words and idioms in personalized context
Π	2B02ENG	STUDIES IN PROSE	CO1. To engage in in-depth reading of the works of masters of prose, which will help in the formation of an effective prose style.CO2. To enable the student to analyse the relationships among authors and elements of literature, including tone, point of view, style and theme.
			CO3. To examine a literary selection from several critical perspective

Course	Course title	Course outcome	
Code	Course title		
3A05ENG COMMON	READINGS IN PROSE AND POETRY	CO1. To enable students to understand the different stylistic, thematic and technical qualities present in the literature of different cultures and historical periods and the specific ways in which language has shaped the reactions perceptions and beliefs of the local, national and global communities. CO2. To help the student understand the timeless significance of good literature which transcende the limitations and peculiarities of the age i was written in. CO3. To help the student acquire an understanding that language and literature are primary means by which culture and humar values are transmitted. CO4. To help the student understand the subtleties of literary devices, techniques, images and sounds used in non-fiction and poetry.	
3B03ENG	LINGUISTICS	 CO1. To provide clear and detailed explanation of the basic building blocks of the language grammar, usage, spelling and punctuation. CO2• To enable students integrate a sound knowledge of grammar into life skills as well as academic contexts CO3. To help students to refine vocabulary for interpersonal, academic and workplace situations including figurative, idiomatic and technica meanings and make highly effective word choices CO4. To help students write fluently for a variety of occasions, audiences, and purposes and to make appropriate choices regarding style stone, level of detail and organization CO5. To help the students to speak language accurately with the right pronunciation, word and sentence stress and into national global intelligibility. 	
3B04ENG	ENGLISH IN THE INTERNET ERA	CO1. To help students to effectively integrate multimedia and technology into learning CO2. To enable the student to use a variety of electronic media, such as the Internet information services and desk-top publishing software programs, to create, revise, retrieve and verify information CO3. To help the student to select and use appropriate study and research skills and tools according to the type of information being gathered or organized from information services CO4. To familiarize the students with the moss recent developments in the integration of Web 2.0 technologies with literature.	
	Code 3A05ENG COMMON 3B03ENG	CodeCourse titleCodeReadings in prose and poetrrySaosengReadings in prose and poetrySaosengLinguisticsSaosengEnglish in the	

Semester	Course Code	Course title	Course outcome
IV	4A05ENG COMMON	STUDIES IN FICTION AND DRAMA	CO1. To teach the student to respond critically to drama and fiction, formulate insights about the texts, learn to construct meaning and identify the characteristics that distinguish literary forms CO2. To help the student understand the power of language and production elements that contribute to the effectiveness of a specific medium. CO3. To enable the student to understand why certain literary works are considered classics and to identify universal themes prevalent in the literature of all cultures CO4. To teach the student to analyse the effectiveness of complex elements of plot, such as setting, major events, problems, conflicts and resolutions. CO5. To understand the relationships between and among elements of literature, including characters, plot, setting, tone, point of view and theme.
IV	4B05ENG	STUDIES IN POETRY	 CO1.To help the students respond effective as well as critically to poetry. CO2. To help the student to understand the different stylistic, thematic and technical qualities present in the poetry of difference cultures and historical periods. CO3. To enable the student to identify the characteristics that distinguish different poetforms and genres and to identify universal them prevalent in the literature of all cultures. CO4. To introduce the student to the diverse experimental and vigorously innovative modified of poetry and to identify universal them prevalent in the literature of all cultures.
IV	4A06ENG	LITERARY CRITICISM	 CO1. To acquaint the students wi fundamental and influential ideas that have bearing on literary creation and understanding literature. CO2. To awaken students' appreciative an critical faculties and so encourage the development as readers of literature. CO3. To provide the students with an adequa understanding of literary/critical terminology, ke concepts, technical terms and theories. CO4. To develop a critical temper in th students and familiarize them with received ide that enjoy universal reception in the context literary study. CO5. To give a clear explanations of the lim and the disagreements between different thinke and schools.

a .	Course	0	Course outcome	
Semester	Code	Course title		
V	5B07ENG	MODERN CRITICAL THEORY	 CO1. To provide the students with an adequate understanding of literary/critical terminology, concepts, technical terms and theories. CO2.To develop a critical temperament in the students. CO3. To stimulate debate and enhance understanding of literature in the context of social structure, gender relations, national identity and so on. CO4. To introduce the students to some of the best writings in the field of criticism practice and the formation of theory 	
V	5B08ENG	DRAMA–THEORY AND LITERATURE	 CO1. To foster a mature understanding of drama and dramaturgy. CO2. To help the student understand the characteristics of major types of drama as well as the classical and medieval precedents that are important for a consideration of drama as a genre. CO3. To equip the student in matters concerning diction and generic expectation- the appropriate styles, conventions and registers of language for a given play. CO4. To enable the student to analyze the textual functions of drama as a powerful vehicle of social change. CO5.To acquire an understanding of the broader intellectual, cultural and social history that gave rise to the growth of drama. 	
V	5B09ENG	STUDIES IN FICTION	 CO1. To acquaint the students with the distinctive qualities of imaginative writing, such as novels and short fiction, their complex history of development and the reasons for the abiding popularity of these genres. CO2. To analyze the effectiveness of complex elements of plot, such as setting, major events, problems, conflicts, and resolutions. CO3. To enable the student to understand the novel in the context of its pre-modern history as well as its modern international form. CO4. To offer the student a masterful insight into basic values of human nature that abide in the fictional form. 	

Semester	Course	Course title	Course outcome	
Semester	Code	Course une	Course outcome	
V	5D01ENG OPEN COURSE	OPEN COURSE ENGLISH FORCOMPETITIVE EXAMS	CO1. To familiarize students with the language items required to take competitive examinations at various levels and to equip them with the methodology of approaching the said items. different mass media. CO2. To acquaint the students with the basics of English grammar and to enrich their vocabulary. CO3.To provide opportunities for the students to improve their listening and reading comprehension skills CO4. To familiarize the students with the questions that are commonly asked in competitive exams.	
VI	6B11ENG	PROJECT	 CO1. To broaden the perspectives of the students and train them in research writing based on information gathered from outside sources CO2. To provide students training in documentation and research methodology. CO3. To foster an understanding of the mechanics of writing. CO4. To learn to structure information or informed ideas logically and effectively. CO5. To learn to present and interpret information gathered through an extensive study of a subject. 	
VI	6B12ENG	MALAYALAM LITERATURE IN TRANSLATION	 CO1. To draw the attention of the student to the literary talents operating in Kerala . CO2. To provide a sense of rootedness and historical continuity. CO3.To learn to subject the very practice of translation to ideological scrutiny. CO4. To make possible the critical discussion of texts, literary movements and cultural phenomena in Kerala. 	
VI	6B13ENG	NEW LITERATURES IN ENGLISH	 CO1. To initiate students into a discussion of the cultural differences in literary texts produced from the New World and identify different theoretical assumptions and practices in literature. CO2. To introduce the learner to the growth and development of literatures outside Britain CO3. To learn to construct alternative readings of history CO4. To learn to critique the relations of power in colonial contexts and newly independent states. CO5. To learn to subject the economic, political, social and cultural axioms of imperialism to a thorough interrogation. 	

Course		0 10		
Semester	Code	Course title	Course outcome	
VI	6B14ENG	INDIAN WRITING IN ENGLISH	CO1. To introduce the student to the extraordinary range and complexity of contemporary Indian writing in English and to draw attention to issues such as nature, culture and representation. CO2. To help the learner to approach Indian Writing in English as a corollary of the momentous contact between India and the Indian ethos on the one hand, and England, the English language and Western culture on the other. CO3. To help the learner to identify the Indian idiom of Indian Writing in English and the Indian sensibility that animates it. CO4. To experience the quintessence of this writing, apart from the prevailing tendencies and motivating forces that foreground it.	
VI	6B15ENG	FILM STUDIES	 CO1. To enable the undergraduate students to discuss film theories at a basic level and prepare them for a higher level of understanding and appreciation of contemporary films. CO2. To equip the undergraduate student with a historical perspective of world cinema. CO3. To accustom the student to a wide range of cinematic styles and techniques from canonical phases of cinematic history. CO4. To critically view the nature of representation on screen of class, race, gender, ethnicity and sexuality. CO5. To create a lively atmosphere of cinema debate in the classrooms with continuous use of audiovisual clippings from representative films based on the wide spectrum of film theories, styles and movement 	
VI	6B16(3)ENG ELECTIVE	WRITING FOR MEDIA	 CO1. To equip students to see the differences in writing for different types of media and to identify media as deeply involved in social processes and change. CO2. To introduce students to the process of writing for media CO3. To enable students to understand the different requirements demanded by different mass media. CO4. To equip students with the required skills/knowledge to write professionally for mass media, the visual and print media. CO5. To equip students to see the differences in writing for different types of media and to identify media as deeply involved in social processes and change. 	

	MA ENGLISH	CONTENT PAGE
PROGRAMME OUTCOME (PO) PO 3. Interdisciplinarity: Perceive knowledge as an organic, integrated faculty of the human min competency PO 4.Effective citizenship: Learn to participate in nation build of sovereignty of the nation, socialit the values that guide a republic		r analyzing individual ting synthetically ical or historical impulse. r out original and persuasive attention to their chosen ensive, interrelated and develop interdisciplinary hering to the principles
PROGRAMME SPECIFIC OUTCOMES (PSO)	PSO.1 . To identify and understand the variou and to have a holistic view about the literatur PSO.2 . To understand the literature and it's of also to introduce major theoretical postulation PSO.3 . Trends and movements of British lite introduction to the literatures in English from PSO.4 . Contemporary and emerging trends i and theory and also introduction to Research	re produced during that time. contexts till 20^{th} century and ns of 20^{th} century. erature in 20^{th} century and an n other nations. n the studies of literature

Semester	Course Code	Course title	Course outcome
Ι	ENG1C01	British Literature: Chaucer to 17 th Century	CO.1.Introduce British poetry, novel and drama from the age of Chaucer to the age of pope.CO. 2. Understand the socio-political context of the period from 14th century -17th centuries.CO. 3. Understand the theme, structure and style in British literature.
Ι	ENG1C02	British Literature: 18 th Century	CO. I. Help students to discover the pleasures in reading fiction.CO.2. Understand gradual changes from reason to emotion in British literatureCO.3. Highlight on the major features of neoclassicism and Enlightenment.

<i></i>	Course		
Semester	Code	Course title	Course outcome
Ι	ENG1C03	Literary Criticism	 CO.1 Gets a firm grounding in a major methodological aspect of literary studies known as theory CO.2. Examines how literary criticism shapes literature and culture across centuries. CO.3 Recognize and critique the major arguments underlying critical writings.
Ι	ENG1C04	History and Structure of English Language	CO. 1 Offers an overview of the History of English Language from its origin to the present.CO. 2. Help students historically conceptualise literatureCO.3. To acquire comprehensive views of broad periods of English literature.
II	ENG2C06	Literature of the Victorian	CO. 1. To enable students to understand the concept of marriage and sexuality, the concept of utilitarianism and its role in human life CO. 2.To enable students to understand the existing conflict between faith and doubt in Victorian society CO.3. To enable the students to trace the intellectual and autistics currents that caused the emergence of some unique literary forms and movements during that time
Π	ENG2C07	Modern Literary Theory	CO1. To understand the different aspects of literary studies known as theory CO 2. Acquaint the students with the history of English criticism in terms of teaching of certain important texts and ideas of everlasting significance ingrained in them. CO.3. To cultivate critical perspective in students while practically training them to attempt critical engagements with text and context.
Ш	ENG3C08	Twentieth Century British Literature	CO.1.Take cognizance of the seminal socio- political and historical events of the twentieth century, which exerted a deep influence on life and literature of the time. CO.2.To understand and appreciate the broad spectrum of literary and artistic movements of the twentieth century and there by develop the critical acumen to comprehend the complementarities of the theme and techniques in the literary work. CO.3.To analyze and demonstrate the knowledge of the major literary movements of the period.

a	Course		<i>a</i>
Semester	Code	Course title	Course outcome
III	ENG3C09	Linguistics	 CO: 1Understand the origin of language and the development of writing. CO.2.Comprehend basic grammatical and semantic categories of English. CO.3.Grasp the complexity of language as a communication system shaped by cognitive, cultural and social factors.
III	ENG3C10	Indian Writing in English	 CO. 1.To understand how Indian writing in English evolved through a process of tradition and experiment, of imitation and innovation, of convention and revolt. CO.2.Take cognizance of the emergence of nationalist and pan-Indian ideologies in colonial and post-colonial India and its role in shaping the literary works. CO.3.Analyse and appreciate the idea of 'Indianans' and 'Indian sensibility' inscribed in the works of both Indian writers and also writers if Indian Diaspora.
III	ENG3C11	American Literature	 CO.1.Comprehend the implications and reverberations of American freedom struggle. CO.2.Well informed about the evolution of American literature and the different cultural backgrounds of American authors and the themes, and their different writing style. CO.3.Comprehend the unyielding American dream.
IV	ENG 4C12	Postcolonial Writings	CO.1.To identifies and understands the context and perspectives of post colonial studies.CO.2. To have an in-depth knowledge about the ideas, perspectives and politics of major post colonial texts.CO.3. To enable students to develop critical perspectives leading to alternative interpretations and knowledge.
IV	ENG 4C13	Women's Writing	 CO.1. To identify, understand, and critically evaluate issues and facts concerning identity, sex, gender and the social functions of these factors. CO.2. To critically appreciate some texts that discuss the issues of gender and sex. CO.3. To create critical perspectives among the students and to help them to form a larger worldview while interacting with the society

G (Course		
Semester	Code	Course title	Course outcome
IV	ENG 4C14	Film Studies	 CO.1. To equip students with knowledge about the fundamentals of cultural studies and film studies. CO.2. to understand the major theoretical perspectives on film and to and to enable the students to develop their own critical thinking about films. CO.3. To enable the students to engage in critical appreciation of various cultural productions including films.
IV	ENG 4C 15	Comprehension	CO1. To mend the learning gaps that might have occurred across the lengths of the course.CO2. To have a holistic view of what they have learnt by emphasizing the broader scope of the course.CO.3. To enable the students to revisit and revise the various course materials so as to help them optimize the attainment of the various course objectives.
IV	ENG PR 16	Project	CO.1. To enable the students to take theirknowledge and understanding to the level ofapplication and creativity.CO.2. To initiate them to the fundamentals ofcritical studies and researchCO.3. To familiarize the Research Methodology.
IV	ENG 4C 17	Viva-Voce	CO.1 To evaluate the student's performance apart from the written exam.CO. 2. To check how far the students attain the various course objective.
I SEMESTER (ELECTIVE)	ENG1EO3	Media Studies	CO.1. Makes a better understanding on professional media industry and to the forms of writings for mass media.CO.2. understand the specificities and possibilities of the different kinds of mediaCO.3. familiarize the students with the latest trends in media.
II SEMESTER (ELECTIVE)	ENG2E05	World Drama	CO.1 Introduce students to important ages and movements in word drama CO.2 . Make them aware of the great diversity of theatre in different parts of the world. CO.3 Focuses in the alternative traditions of drama present in the non-western world.
III SEMESTER (ELECTIVE)	ENG3E08	European Fiction	CO.1. To introduce the students to historical background of the European classical literature CO.2. To acquaint the students with various literary terms and its implementation and significance in European writing. CO.3. make the students acquainted with the world famous novelists and their literary outputs

		BA HISTOR	CONTENT PAGE
PROGRAMME OUTCOME Acc PROGRAMME OUTCOME PO Import awa PO awa Import BC Import BC <t< th=""><th>solving capacities among the p PO 2. Effective Citizenship: modern democratic values an awareness, and to fight against PO 3. Effective Communica listen clearly in person and th Modern Indian Language. PO 4. Interdisciplinary: Per</th><th>Learn to participate in nation building in tune with d ideals including gender equality, environmenta</th></t<>		solving capacities among the p PO 2. Effective Citizenship: modern democratic values an awareness, and to fight against PO 3. Effective Communica listen clearly in person and th Modern Indian Language. PO 4. Interdisciplinary: Per	Learn to participate in nation building in tune with d ideals including gender equality, environmenta
SPECIFIC	PROGRAMME PECIFIC OUTCOMES (PSO) PSO.1. Understand factual and conceptual aspects of historical change multiple areas of the world PSO.2. Think contextually and critically about the past to understand experiences PSO.3. Analyze why and how historical events take place based on the verification of diverse evidences and arguments PSO.4. Design and write research papers based on primary and second sources PSO.5. Make logical oral presentation of factual and theoretical know historical events and changes		d critically about the past to understand human w historical events take place based on the acces and arguments arch papers based on primary and secondary entation of factual and theoretical knowledge of manitarian, democratic and secular outlook based o
Semester	Course Code	Course title	emporary societal, economic and political issues Course outcome
I	IBO1HIS	Social Formation in Early India	CO. 1 Identify the sources for the study of early Indian history and culture CO.2 Recognize early Indian settlements centers of political and cultural importance CO.3 Demonstrate factual and theoretical knowledge of social, economic, cultural an political transformations in early India CO. 4 Analyze and Explain the significance of different religious and philosophical trends in ancient India.
п	2B02HI	Social Formations in India: Continuity and Change	 CO. I Identify the major changes in the transition from ancient to medieval CO.2.To discern the historiographical schools of Early medieval India CO.3.Analyse the concept of Indian Feudalism in the context of decline of the Gupta empire, land grant system and demonetization CO.4 Critically evaluate the feudalism debate

Semester	Course Code	Course title	Course outcome
III	3B03HIS	Methodology and Perspectives of Social Science	 CO.1 Familiarize Social Science methodology CO.2.Analyze the concept of Objectivity in Social Science CO.3 Conceptualize the interdisciplinarity of social science CO.4 Discern the postmodern theories of social science
III	3B04HIS	Culture in Transition	 CO. 1 Recognize the geographic locations of Greek and Roman states and medieval towns CO. 2 Understand the broad pattern of political and cultural changes in Medieval Europe CO. 3 Discuss cultural and intellectual legacies of Greek and Roman civilizations to Modern West CO. 4 Evaluate cultural differences between ancient and medieval societies in Europe
IV	4B05HIS	Kerala History and Culture in Pre-Modern Period	 CO. 1 Identify sources for the study of ancient an medieval Kerala history CO.2 Locate prehistoric and early historic settlements, ports, towns and political boundaries in Kerala CO.3 Describe social, economic, political and cultural formations of Kerala in ancient and medieval times CO.4 Produce monographs on any aspects of Kerala history using primary and secondary sources
IV	4B06HIS	Ideologies and Revolutions in the modern World	 CO. 1 Understand origin, stages and results of selected revolutions in the modern world CO. 2 Analyze and explain different interpretations of world revolutions CO. 3 Relate the results of modern world revolutions to contemporary developments in the world CO.4 Produce written work on ideological, humanistic and secular aspects of any of the modern world revolutions
V	5B07HIS	Social Formation in Medieval India	 CO1.Understand socio-political formations in Medieval India CO 2. Describe the evolution of Indo-Saracenic art and architecture CO 3. Analyze and explain the formation of secular political values in India CO 4. Locate centers of cultural, political and commercial importance

	Course		
Semester	Code	Course title	Course outcome
V	5B08HIS	Social Movements and Political Awakening in Modern Kerala	 CO.1 Understand factual knowledge of modern Kerala history CO.2 Explain political, social, cultural, religious and intellectual factors that led to the formation of modern Kerala CO.3 Analyze and discern the influence of caste and communal organizations in Kerala society and politics CO.4 Understand the significance of secular and egalitarian values and forces in the making of the cultural identity of Kerala
IV	4B06HIS	Ideologies and Revolutions in the modern World	 CO. 1 Understand origin, stages and results of selected revolutions in the modern world CO. 2 Analyze and explain different interpretations of world revolutions CO. 3 Relate the results of modern world revolutions to contemporary developments in the world CO.4 Produce written work on ideological, humanistic and secular aspects of any of the modern world revolutions
V	5B09 HIS	HISTORIOGRAPHY	 CO: 1 Understand basic terms, concepts and categories of historiography CO: 2 Describe the origin and growth of history as a branch of knowledge from ancient times CO: 3 Analyze and explain ideological and methodological foundations of historical writing in ancient, medieval and modern period in world history CO. 4 Discuss the relevance of interdisciplinary research and objectivity in historical writings
V	5B10HIS	Method and Writing of History	 CO. 1 Distinguish between primary and secondary sources CO. 2 Use historical and interdisciplinary methods of research and research tools CO. 3 Analyze and synthesize historical data collected from different sources CO. 4 Create reasonable arguments and interpretations with the support of documentary evidences
v	5B11HIS	Archival Studies and Social Informatics	CO.1 Familiarize theories and concepts of Archival scienceCO. Understand the context of archives keeping in the modern worldCO.3. Conceptualize the developments in Social informaticsCO.4 Use online sources for the study of history

Semester	Course Code	Course title	Course outcome
VI	6B12	Indian Historiography	CO.1.Understand the historical traditions and writings in Ancient and Medieval India CO.2 Demonstrate comprehensive understanding of the origin and growth of major schools of modern Indian historiography CO.3 Explain theoretical and methodological differences in historical writings CO.4 Develop a critical approach in assessing the work of a historian
VI	6B13HIS	Problems in Contemporary World	CO.1.understand major political issues and events in the world since World War II. CO.2Analyze international problems in the context of diverse political interests and ideological movements CO.3.Interpret the present political issues in relation with pertinent international events in the twentieth century CO.4.Develop anti-colonial and anti-racist attitude and universal citizen concept
VI	6B14HIS	Colonialism and Transformation of Indian Society	CO.1 Understand Context of colonialism CO.2.Analyze the political, social and economic background of Social reform movement and its role in the making of modern India CO.3.Understand the nature of the revolt of 1857 and its impact CO.4 Analyze the role of modern Education in the Indian National Movement
VI	6B15HIS	Freedom Struggle in India	 CO.1 Understand political, social and economic background of freedom struggle CO.2 Specify major stages of freedom struggle and their ideological distinctions CO.3 Analyze the role of nationalist movement in the making of modern India CO.4 Develop an attitude of nationalism cutting across limited boundaries of religion and caste in order to resist communal forces

C	Course	Comme dida	Commo contanto
Semester	Code	Course title	Course outcome
VI	6B16HIS	PROJECT	 CO.1 Learn how to select a research topic and prepare research plan/proposal CO.2 Understand processes of data collection and research methods CO.3 Undertake critical analysis of data and make interpretations CO.4 Prepare a well written and authentic research work with proper references and select bibliography
V (OPEN COURSE)	VD01HIS (OPEN COURSE)	Social Reform Movement in Kerala (OPEN COURSE)	 CO.1.Understand the role of Western education, missionary activities and indigenous reform movements in the making of modern Kerala CO.2.Evaluate the ideas, programmes and tactics of social reformers CO.3. Promote critical thinking about various social and religious issues in Kerala CO.4.Analyze and explain secular foundations of Kerala society
1	HISTORY COMPLI	EMENTARY COURSES FO	OR BA ENGLISH PROGRAMME
I	IC01HIS	Evolution of Social and Cultural Life in England	 CO.1 Identify geographical features and early settlements CO.2 Understand the evolution of social and political life in England CO.3 Describe the origin and growth of English language and literature CO.4 Analyze and explain historical background of social and cultural transitions
Π	2C02HIS	Social and Cultural History of Modern England	 CO.1 Understand the growth of English literature in different stages CO.2 Explain the political and social history of modern England CO.3 Analyze how history of England and English literature are intertwined CO.4 Assess new features of new literary trends in English

	B.Sc MATHEMATICS CONTENT PAGE
	PO 1. Critical Thinking
	1.1. Acquire the ability to apply the basic tenets of logic and science to thoughts,
	actions and interventions.
	1.2. Develop the ability to chart out a progressive direction for actions and
	interventions by learning to recognize the presence of hegemonic ideology within
	certain dominant notions.
	1.3 Develop self-critical abilities and also the ability to view positions, problems
	and social issues from plural perspectives.
	PO 2. Effective Citizenship 2.1. Learn to participate in nation building by adhering to the principles of
	sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic.
PROGRAMME	2.2. Develop and practice gender sensitive attitudes, environmental awareness, empathetic social awareness about various kinds of marginalization and the
OUTCOME	ability to understand and resist various kinds of discriminations.2.3. Internalize certain highlights of the nation's and region's history. Especially
(PO)	of the freedom movement, the renaissance within native societies and the project
	of modernization of the post-colonial society.
	PO 3. Effective Communication
	3.1. Acquire the ability to speak, write, read and listen clearly in person and
	through electronic media in both English and in one Modern Indian Language
	3.2. Learn to articulate, analyze, synthesize, and evaluate ideas and situations in a
	well-informed manner. 3.3. Generate hypotheses and articulate assent or dissent
	by employing both reason and creative thinking.
	PO 4.Interdisciplinarity
	4.1. Perceive knowledge as an organic, comprehensive, interrelated and
	integrated faculty of the human mind.
	4 4.2. Understand the issues of environmental contexts and sustainable
	development as a basic interdisciplinary concern of all disciplines.
	4.3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solvi
	and evolving a comprehensive perspective.
PROGRAMME SPECIFIC OUTCOMES	PSO 1 : Understand the basic concepts and tools of Mathematical logic, Set theory, Number theory, Geometry, Calculus, Algebra, Abstract structures, Linear Alge Analysis, Laplace transforms, Fourier series, Graph theory, and Optimization and methods of proofs.
(PSO)	PSO 2: Model real world problems into Mathematical problems and find solutions understand the application of Mathematics in other Sciences and Engineering

Semester	Course	Course title	Course outcome
Semester	Code	Course the	Course outcome
I	1B01 MAT	Differential Calculus	 CO1: Understand limit of a function, limit law Continuity, Inverse functions and their derivative CO2- Understand Rolle's Theorem, Lagrange Mean Value Theorem, Cauchy's Mean Value Theorem and Taylors Theorem CO3: Understand successive differentiation and Leibnitz theorem CO4: Understand functions of several variable limit and continuity, partial derivatives, chain rule, homogenous functions and Euler theorem on homogenous functions
п	2B02 MAT	Integral Calculus	 CO1: Understand Reduction formulae for trigonor functions and evaluation of definite integrals CO2: Understand Double integrals in Cartesian a Polar form. CO3: Understand Polar coordinates CO4: Understand Double integrals in Cartesian a polar form CO5: Understand triple integrals in rectangular, cylindrical and spherical co-ordinates CO6: Understand Substitution in multiple integrals
III	3B03 MAT	Elements of Mathematics I	 Co1: Understand Finite and Infinite set Countable and uncountable sets, Canto theorem, Logic and proof CO2: Understand Relation between roots a coefficients, Symmetric functions of roots, Sum the powers of roots, Newton's theorem on sum the powers of roots, Transformation of equation Reciprocal equations. CO3; Understand Descartes rule of signs, Multiproots, Sturm's theorem, Cardon's method, Soluti of biquadratic equation, Fundamental theorem algebra CO4: Understand Divisibility theory in the integers – the division algorithm, the greater common divisor, the Euclidean algorithm, the Diophantine equation
IV	4B04 MAT	Elements of Mathematics II	 Co1: Understand Relations, Types of relations, Partitions, Equivalence relation, Partial ordering relation, Functions, Composition of functions, Or to one, Onto and invertible function CO2: Understand Ordered sets, Partially ordered sets and Hasse diagrams, Minimal and maximal elements, First and last elements, Supermom and infimum, Lattices. CO3; Understand Chords of contact of tangents from a given point, Pair of tangents from a point, pole and polar with respect to conic sections, Equation of a chord in terms of middle point, Parametric representation of points on conics CO4: Understand Rank of a matrix – Elementary transformation, reduction to normal form, row reduced echelon form

Semester	Course Code	Course title	Course outcome
V	5B05 MAT	Real Analysis	 CO1 :Understand Algebraic Properties, Order Properties and Absolute values of R. Understand the Completeness Property of R and its applications to derive Archimedean Property. CO2 :Understand intervals in the real line. CO3 :Understand Sequences and their Limits, Limit Theorems, Monotone Sequences. CO4:Understand Subsequences and the Bolzano-Weierstrass Theorem, The Cauchy Criterion. CO5 Understand Infinite Series, Absolute Convergence. Comparison test, Root test, Ratio test, Integral test and Raabe's test for Absolute convergence. CO6:Understand Alternating series test, Dirichlet test and Abel's testfor Non Absolute convergence
V	5B06 MAT	Abstract Algebra	 CO1: Understand definition and elementary properties of Groups, Subgroups and Cyclic group CO2: Understand Groups of Permutations, orbits Alternating groups and theorem of Lagrange, group homomorphisms, factor Groups, Homomorphism Theorems CO3: Understand definition and properties of ringsand fields CO4: Understand Ring homomorphisms and isomorphismsCO5: Understand zero divisors, integral domains, characteristic of a ring and theiproperties
V	5B07 MAT	Differential Equations, Laplace Transform and Fourier Series	CO1: Understand Separable ODEs, Exact ODEs, ODEs, Bernoulli equation and methods to solve to ODEs CO2 :Understand the theorem of Existence and Uniqueness of solutions of first and second order CO3 :Understand Homogeneous Linear ODEs of Second Order and solve homogeneous linear ODE second order withconstant coefficients and Euler- Cauchy equation CO4: Understand Nonhomogeneous ODEs and set by variation of parameters CO5: Understand Laplace Transform and invest Laplace Transformation CO6 :Understand The first and The second shifting theorems and their applications, methods to find Laplace transforms of derivatives and integrals of functions CO7 Understand the method of differentiating an integratingLaplace transform

a .	Course		
Semester	Code	Course title	Course outcome
V	5B08 MAT	Vector Calculus	 CO1: Understand lines and planes in space, curves in space, their tangents, normal, curvature, tangential and normal curvature of acceleration CO2: Understand Directional derivatives and gradient vectors, tangent planes and differentials. Solve extreme value problems using Lagrange multipliers CO3: Understand Partial derivatives with constrained variablesand Taylor's formula for two variables CO4: Understand Line integrals. Solve for work, circulation and flux using line integrals CO5:Understand path independence conservative fields and potential functions Green's theorem and solve problems using Green's theorem CO6: Understand Surface area and surface integrals
V	5B09 MAT	Graph Theory	 CO1: Understand a graph, subgraph ,different types graphs and their properties CO2: Understand a path, cycle, trees, bridges and the properties CO3: Understand cut vertices and connectivity of graphs CO4: Understand Eulerian graphs, Hamiltonian grather Chinese Postman Problem and The Travelling Salesman Problem.
V	5D01MAT Open Course	Business Mathematics	 CO1: Understand the concept of Limit and continumethods of finding limits definition, Differentiation rules of differentiation, Parametric function logarith differentiation. CO2 : Understand the Successive differentiation, Logaximum and local minimum and solves problems CO3: Understand the Rules of integration, Some standard results, Consumer's surplus, Producer's surplus, Consumer's surplus CO4 : Understand rate of interest, Continuous compounding, Compound interest, Present valve, interest and discount, Rate of discount, Equation of value

Semester	Course Code	Course title	Course outcome
VI	6B10 MAT	Linear Algebra	 CO1: Understand the concept of Vector spaces subspaces, linear combinations ad system of equations. CO2 :Understand the concept of Linear Dependence and Linear Independence, Bases an Dimension, Maximal Linearly Independent Subset CO3: Understand the concept of Linear Transformations, Null Spaces, and Ranges, Th Matrix Representation of a Linear Transformation. CO4 :Understand Rank of a matrix, Elementar transformations of a matrix, Invariance of ran through elementary transformations, Normal form Elementary matrices. CO5: Understand the concept System of linear homogeneous equations Null space and nullity of matrix, Range of a matrix, Systems of linear no homogeneous equations. Cayley-Hamilto theorem.
VI	6B11 MAT	Numerical Methods and Partial Differential Equation	CO1:Understand Interpolation techniques Interpolation with unevenly spaced point Lagrange interpolation, Newton's divide differences interpolation, Finite difference operators and finite differences, Newton interpolation formulae and Central difference interpolation. CO2; Understand Numerical differentiation usin difference formulae CO3: Understand Picard's method. Solution h
VI	6B12 MAT	Complex Analysis	 CO1: Understand Analytic Function, Cauchy–Rie: Equations. Laplace's Equation. CO2 :Understand Exponential Function, Trigonom Functions, Hyperbolic Functions, Logarithmic fun and General Power of complex numbers CO3: Understand line integral in the complex plane, Cauchy's integral theorem , Cauchy's integral for and derivatives of analytic functions CO4 Understand convergence of Sequences and S of complex functions, power series, functions give power series, Taylor series, Maclaurin's Series and Laurent Series CO5: Understand singularities and zeros of complex functions

	Course		
Semester	Code	Course title	Course outcome
VI	6B13 MAT	Mathematical Analysis and Topology	 CO1: Understand Riemann Integral and Riemann- integrable Functions CO2:Understand Sequence & series of functions Point wise and uniform convergence – Interchange of limits – Series of Functions CO3 Understand open sets, closed sets, convergence, completeness and Baire's theorem. CO4: Understand the concept of Metric Spaces
VI	6B14A MAT	Operations Research (Elective)	 CO1: Understand LPP, formulate and solve using graphical method CO2 Understand General LPP, canonical and standard forms of LPP CO3 Understand simplex method and solve LPP, basic solution, degenerate solution, basic feasible solution, optimum basic feasible solution fundamental properties of solution and simplex method CO4: Understand primal-dual pair, formulation of dual and duality theorems CO5: Understand LP formulation of transportation problem and its solution , Mathematica formulation of Assignment problem and Hungarian Assignment.
	Complemen	ntary Courses-Mathema	atics for Polymer Chemistry
Semester	Course Code	Course title	Course outcome
Ι	1C01 MAT-CH	Mathematics for Chemistry I	 CO1: Understand Hyperbolic Functions Calculation of the n th derivative – some standard results, determination of n th derivative of rational functions -Leibniz' theorem, Maclaurin's Theorem and Taylor' Theorem CO2 Understand Rolle's theorem, Lagrange' mean value theorem, Meaning of the sign of derivative, Cauchy's mean value theorem higher derivatives, Indeterminate forms, CO3 Understand Partial Differentiation,

continuity of a function of two variables, limit of a function of two variables, homogeneous functions Curvature, Radius of curvature (Cartesian Equations), Centre of Curvature,

CO4: Understand Polar coordinates in two dimensional, Cylindrical and Spherical

Evolutes and Involutes

Coordinates.

Semester	Course	Course title	Course outcome
	Code		
Ш	2C02MAT-CH	Mathematics for Chemistry II	 CO1: Understand Integration of Trigonometric Functions Areas of Plane Regions, lengths of plan curves CO2 Understand Volumes and Surfaces of Revolution using integration Multiple Integrals, Double integral, Applications of Double Integration, Triple integrals CO3 Understand Applications of Matrix Multiplication, Linear Systems of Equations, Gauss Elimination, Row equivalent Systems, Linear Independence, Rank of a Matrix, Vector Space, Solutions of Linear Systems ,Cramer's Rule, Inverse of a Matrix: Gauss Jordan Elimination CO4: Understand Matrix Eigen Value Problems, Cayley-Hamilton Theorem
ш	3C03 MAT-CH	Mathematics for Chemistry III	 CO1: Understand First Order Ordinary Differential Equations Basic concepts, Separable ODEs, Exact ODEs, Integrating Factors, Linear ODEs, Bernoul Equation CO2 Understand Second Order Ordinary Differential Equations, Homogeneous Linear ODEs of second order, Homogeneous Linear ODEs with constant coefficients, Euler-Cauchy Equation, Wronskian, No homogeneous ODEs, Solution by variation of Parameters CO3 Understand Laplace Transform, Inverse Transform, Linearity, s-Shifting, Transforms of Derivatives and Integrals, t- Shifting, Convolution Integral Equations, Differentiation and integration of Transforms. CO4: Understand Fourier series, Functions of any period p = 2L, Half-range Expansions Partial differential Equations, Wave Equation, Solution by Separating Variables, D-Alembert's solution of th wave equation, Heat Equation, Solution by Fourie Series.
VI	4C04 MAT-CH	Mathematics for Chemistry I V	 CO1: Understand Vector and scalar functions and Fields, Derivatives, Gradient of a scalar field; Divergence of a vector field, Curl of a Vector Field. CO2 Understand Line Integrals, Green's Theorem in the Plane ,Surface Integrals, Triple Integrals, Divergence theorem of Gauss, Stoke's theorem CO3 Understand Solution of Algebraic and Transcendental Equation: Bisection Method, Newton-Raphson Method ,Finite Differences, Interpolation, Divided differences and their properties, Numerical Differentiation and Integration ,Trapezoidal Rule, Simpson's 1/3- Rule CO4: Understand Numerical Solutions of ODE: Solution by Taylor's series, Picard's method, Modified Euler's method, Runge -Kutta method.

Semester	Course Code	Course title	Course outcome
	Complement	ary Courses-Mathemat	ics for Computer Science
I	1C01MAT-CS	Mathematics for Computer Science I	CO1: Understand Hyperbolic Function Calculation of the n th derivative – some standar results, determination of n th derivative of rational functions -Leibniz's theorem, Maclaurin Theorem and Taylor's Theorem CO2 Understand Rolle's theorem, Lagrange mean value theorem, Meaning of the sign of derivative, Cauchy's mean value theorem, high derivatives, Indeterminate forms, CO3:Understand Partial Differentiation continuity of a function of two variables, limit of function of two variables, homogeneous function Curvature, Radius of curvature (Cartesia Equations), Centre of Curvature, Evolutes of Involutes CO4: Understand Polar coordinates in two dimensional, Cylindrical & Spherical Coordinates
Ш	2C02 MAT-CS	Mathematics for Computer Science II	 CO1: Understand Integration of Trigonometr Functions Areas of Plane Regions, lengths of plan curves CO2 Understand Volumes and Surfaces of Revolution using integration Multiple Integrals, Double integrals Applications of Double Integration, Triple integrals CO3 Understand Applications of Matrix Multiplication Linear Systems of Equations, Gauss Elimination, Ro equivalent Systems, Linear Independence, Rank of Matrix, Vector Space, Solutions of Linear System ,Cramer's Rule, Inverse of a Matrix: GaussJorda Elimination CO4: Understand Matrix Eigen Value Problem Cayley-Hamilton Theorem
III	3C03 MAT-CS	Mathematics for Computer Science III	 CO1: Understand First Order Ordinary Differential Equations Basic concepts, Separable ODEs, Exact ODEs, Integrating Factors, Linear ODEs, Bernoulli Equation CO2 Understand Second Order Ordinary Differential Equations, Homogeneous Linear ODEs of second order Homogeneous Linear ODEs with constant coefficients, Euler-Cauchy Equation, Wronskian, Nonhomogeneous ODEs, Solution by variation of Parameters CO3 Understand Laplace Transform, Inverse Transfort Linearity, s-Shifting, Transforms of Derivatives and Int t- Shifting, Convolution, Integral Equations, Differentia and integration of Transforms. CO4: Understand Fourier series, Functions of any period p = 2L, Half-range Expansions PDE, Wave Equation, Solution by Separating Variables, D-Alembert's solution of the wave equation, Heat Equation, Solution by Fourier Series.

Semester	Course Code	Course title	Course outcome
IV	4C04 MAT-CS	Mathematics for Computer Science IV	 CO1: Understand Vector and scalar functions and Fields, Derivatives, Gradient of a scalar field;Divergence of a vector field, Curl of a Vector Field. CO2 Understand Line Integrals, Green's Theorem in the Plane ,Surface Integrals, Triple Integrals, Divergence theorem of Gauss, Stoke's theorem CO3 Understand Solution of Algebraic and Transcendental Equation: Bisection Method, Newtor Raphson Method, Finite Differences,Interpolation, Divided differences and their properties, Numerical Differentiation and Integration ,Trapezoidal Rule, Simpson's 1/3- Rule CO4: Understand Numerical Solutions ofODE: Solution by Taylor's series, Picard's method, Modifie Euler's method, Runge-Kutta method.

	M.Sc MATHEMATICS <u>CONTENT PAGE</u>
PROGRAMME OUTCOME (PO)	 PO1.Inculcate critical thinking to carry out scientific investigation objectively without being biased with preconceived notions PO2. Equip the student with skills to analyze problems, formulate an hypothesis, evaluate and validate results, and draw reasonable conclusions PO3. Prepare students for pursuing research or careers in industry in mathematical sciences and allied fields PO4. Imbibe effective scientific and/or technical communication in both oral and writing. PO5. Continue to acquire relevant knowledge and skills appropriate to professional activities and demonstrate highest standards of ethical issues in mathematical sciences PO6. Create awareness to become an enlightened citizen with commitment to deliver one's responsibilities within the scope of bestowed rights and privileges.
PROGRAMME SPECIFIC OUTCOMES (PSO)	 PSO.1: Understanding of the fundamental axioms in mathematics & capability of developing ideas based on them. & PSO.2:Inculcate mathematical reasoning PSO.3: Prepare & motivate students for research studies in maths & related fields PSO.4: Provide knowledge of a wide range of mathematical techniques & application of mathematical tools in other scientific & engineering domains. PSO.5. Provide advanced knowledge on topics in pure mathematics, empowering the students to pursue higher degrees at reputed academic institutions PSO.6: Good understanding of number theory which can be used in modern online cryptographic technologies. PSO.7: Nurture problem solving skills, thinking, creativity through assignments, project work. PSO.8: Assist students in preparing (personal guidance, books) for competitive exams e.g. NET, GATE, etc.

Semester	Course Code	Course title	Course outcome
Ι	MAT1C01	Basic Abstract Algebra	 CO1. Identify and analyze different types of Algebraic structures to understand and use the fundamental results in algebra. CO2. Analyze and implement the concept of homomorphism and isomorphism between groups and rings for solving different types of problems. CO3. Applying the concept of group action and sylow - theorems. CO4. Understand the concept of finitely generated abelian groups, ideals and fields helps to explore the existing results.
Ι	MAT1C02	Linear Algebra	 CO1:Make better understanding linear transformation and related concepts - isomorphism, matrix of linear transformation, linear functional and the double dual of linear transformation CO2. Gives an overview of characteristic values, annihilating polynomials, invarient subspaces, diagonalization and triangulation. CO3. Enable students to understand the concepts of elementary canonical form, the rational canonical form and Jordan form. Given then an idea about inner product spaces. CO4. Students can gain the skill like modeling of problems and matrix manipulation.
Ι	MAT1C03	Real Analysis	 CO.1 Students achieve a good grasp of the basic concepts of real analysis. CO.2. Understand the basics of metric spaces and generalize the concepts of limits, continuous functions in metric spaces. CO.3. Apply the concepts of derivatives, Mean value theorems for vector valued functions in different fields. CO.4. Recognize the differences between bounded variation and total variation of functions. CO.5. Understand the concept rectifiable curves.
Ι	MAT1C04	Basic Topology	CO.1. Introduce the concepts of topological space and the basic definitions such as open sets, neighbourhoods, interior, exterior, closure and their axioms for defining topological spaces. CO.2. Understand the concepts of bases and Sub bases. Create new spaces from old ones. CO.3. Highlight the features of continuity, connectedness, homeomorphism, topological properties.
Ι	MAT1C05	Differential Equations	 CO.1. Apply various power series methods to obtain series solution of differential equations. CO.2. Ability to handle differential equation and solve them under appropriate assumption. CO.3. Discuss various kinds of special functions in detail, their properties and relation. CO.4. Students will have working knowledge of basic application problems described by homogeneous linear system with constant coefficients. CO.5. Introduce Picard's theorem and enable them t solve approximation problems.

Semester	Course Code	Course title	Course outcome
п	MAT2C06	Advanced abstract algebra	 CO1 Enable students to understand UFD ,Euclidean Domains, Gaussian Integers and Multiplicative Norms, Introduction to Extension Fields CO2.Understand the concept of Algebraic Extensions, Geometric Constructions, Finite Fields, Auto orphisms of Fields. CO3. Analyze the concept of Isomorphism Extension Theorem, Splitting Fields, Separable Extensions. Galois Theory
п	MAT2C07	Measure and integration	 CO1: Introduce the definition and properties of lebesgue outer measure. CO2: Understand the concept of measurable sets and construction of non-measurable sets measurable functions of a real variable CO3. Enable students to understand Riemann and lebesgue integral, concept of Abstract measure spaces
п	MAT2C08	Advanced Topology	 CO1:Enable students to review the fundamentals of topology CO2:Understand the concept of compactness and relation between various forms of compactness CO3: Recognize how points of space are separated by open sets and understand the separation axioms CO4: Acquire knowledge about metrizability and homology of paths
п	MAT2C09	Foundations of Complex analysis	CO1: Design, analyze and implement the concept of Analytic Functions, Complex Integration ,Power Series representation of Analytic Functions ,Zeroes of an analytic function , Cauchy's Theorem and Integral Formula , Goursat's Theorem CO2: Analyze different type of Singularities, Classification of singularities, Residues, The Argument Principle, the Maximum Modulus Theorem, the Maximum Principle, Schwarz's Lemma . CO3: Understand the concept of Compactness and Convergence in the Space of Analytic functions, the Spaces of continuous functions $C(G, \Omega)$, Spaces of analytic functions, the Riemann Mapping Theorem, Weierstrass Factorization Theorem.
п	MAT2C10	Partial differential equations and integral equations	CO1: Solving first order partial differential equation using method of Charpits and Jacobi. Introduce the nonlinear first order pde CO2: Identify and solve different types of second order pde including the solution of One dimensional Wave Equation Laplace's Equation and discuss Problems - The Cauchy Problem, The Dirchlet Problem , Introduce integral equation. CO3 : Develop skills in the formulation, solution understanding and interpretation of pde Models

Semester	Course Code	Course title	Course outcome
ш	MAT3C11	Number theory	 CO1:Make a better understanding of divisibility and related algorithms CO2: Discuss the distribution of primes & introduce various arithmetical functions and related results CO3: Enable students to understand the definition and basic properties of congruences. CO4:Introduce the concept of quadratic residues and quadratic reciprocity law, Primitive roots Introduce the concept of coding and cryptography CO5: Gives an overview of algebraic number theory
ш	MAT3C12	Functional Analysis	CO1: Introduce the Concept of normed linear spaces and inner product spaces, Bounded linear operators between these spaces . CO2:Make a better understanding of ortho norma sets, approximation and optimization and discuss the Projection & Riesz representation theorems CO3:Enable students to compare the differences between Banach and Hilbert Spaces CO4:Students achieve a good idea to show that certain spaces of functions are complete
ш	MAT3C13	Complex Function Theory	CO1: Introduce Elliptic Functions, Simple period functions, Doubly periodic functions, The Rieman Zeta function and related results. CO2 : Discuss Runge's Theorem , Simple Connectedness, Mittag Lefler's Theorem, Mondromy Theorem ,Harmonic Functions CO3: Understand basic Properties of harmonic functions, Sub harmonic and super harmonic functions, entire Functions, Jensen's formula
ш	MAT3C14	Advanced real Analysis	CO1: Make better understanding of Sequence and series of Functions. Uniform Convergence, Unifo Convergence and Continuity, Uniform Converger Integration, Uniform Convergence and Differenti Equi continuous Family of Functions, The Stone- Weierstrass Theorem, CO2: Introduce Some Special Functions and relat algorithms CO3: Discuss more about Linear Transformations Differentiation, The Inverse Function Theorem, a Implicit Function Theorem.
Ш	MAT4C15	Operator theory	CO1: Introduce the concept of Spectrum of a Bou Operator, Weak and Weak* Convergence CO2: Discuss about the Spaces of Bounded Line Functionals; Reflexivity, Compact Operators on Normed Spaces, Spectrum of a Compact Operato CO3: Understand the concept of Bounded Opera Hilbert Spaces, Adjoints, Normal, Unitary and Sa Adjoint Operators, Spectrum and Numerical Rang Compact Self Adjoint Operators.

Semester	Course Code	Course title	Course outcome
IV	MAT4C16	Differential Geometry	 CO1. Introduce the concept of Graphs and Level Sets, Vector Fields, The Tangent Space, Surface Vector fields on Surfaces, Orientation CO2: Give an overview of the Gauss map, Geodesics, Parallel Transport, The Weingarten Map, Curvature of Plane Curves. CO3: Understand the concept of are Length and Line Integrals, Curvature of Surfaces, Parameterized Surfaces, and Local Equivalence Surfaces and Parameterized Surfaces.
IV	MAT4D01	Project work	CO1. Inculcate a taste for research in mathematic CO2. Develop oral and written presentation skill
IV	MAT4VO1	Viva –Voce	CO1.To evaluate the students performance apart from the Written exam CO 2.To check how far the students attain the various Course objective .
IV	MAT3E03	Calculus of Variations	 CO1: Understand the concept of Elements of the Theory, Further Generalizations CO2: Discuss the General Variations of a Functional, The Canonical Form of the Euler Equations and related topics CO3: Understand the concept of Second Variation, Sufficient condition for a Weak Extremism.
IV	MAT4E02	Fourier and wavelet analysis	 CO1: They are able to Construct Wavelets on Zitthe First Stage. and Construct Wavelets on Zn, the First Stage. and Construct Wavelets on Zn, the Itration Step. Introduce the concept of the Haar System, the Shannon wavelets and the Daubechies's D6 wavelets on Zn. CO2: Understand l² (Z), Complete Orthonormal sets in Hilbert Spaces l² (Z), and Fourier Series, The Fourier transforms and convolution on l² (Z), First Stage Wavelets on Z, The Iteration Step for Wavelets on Z. CO3: Discuss about L² (R) and Approximate Identities. The Fourier Transform on R.

1	B.Sc POLYMER CHEMISTRY <u>CONTENT PAG</u>
PROGRAMME OUTCOME (PO)	 PO 1. National integrity: a. To respect the republic of the nation via participating in programs nation building and inculcate the values of socialism, secularism a democracy of the country. b. To nurture the attitudes of gender equality, environmental and soc awareness practices and to understand as well as resist various kinds marginalization and discriminations in the society. PO 2. Critical Thinking: a. Acquire and apply the basic principles of science to thoughts, action and interpretations. b. Address self-critical thinking and also the ability to view position problems among diversity. PO 3.Interdisciplinarity: a. Understand interdisciplinary concern of all disciplines, with regard environmental contexts and sustainable development. b. Propagate the aspirants of aesthetic, humanistic, artistic and soc sensibilities for problem solving and evolving a comprehensi perspective. PO 4. Communication Skill : a. Achieve effective communication skills such as speaking, writin reading and listening clearly in both person and through electron media. b. Learn to articulate, analysis, synthesize, and evaluate ideas a situations in a well-informed manner in both English and in one Mode Indian Language.
PROGRAMME SPECIFIC OUTCOME (PSO)	 PSO 1 Understand the basic principles, preparation methods and procest techniques of polymers. PSO 2 To apply generic knowledge, skills and global competencies that enstudents to undertake further studies in the field of polymer chemistry or a relifield. PSO 3.Create an awareness of the impact of polymers on the environmetric society, and development outside the scientific community. PSO 4.Inculcate the procedural knowledge about the synthesis of polymer different areas like clothing, communication, media recording, nutrithinghways etc. PSO 5 Acquire comprehensive idea about the safety of chemicals and the measurements for the preparation of solutions and understand a green routed polymer synthesis. PSO 6 Develop the skills in lab work and practical activities, which leaver problem solving abilities, required for successful career in pharmaceutic teaching, environmental monitoring, cosmetics industry, research, food productions and understand problem solving abilities.

Semester	Course Code	Course title	Course outcome
1	1B01PCH	Theoretical And Inorganic Chemistry	 CO 1: Understand the basics of evaluation of analytical data CO 2: Acquire the knowledge of structure of atom in classical and wave mechanical approach CO3: Understand the nature of chemical bonding and apply in describing the structure of molecules CO4: Summarize nuclear disintegration, nuclear fission and fusion and distinguish natural radio activity, artificial radio activity and artificial transmutation
II	2В02РСН	Analytical Chemistry	 CO1: Familiarize the basic principles and distinguished study of both quantitative and qualitative analysis CO2: Understand the fundamental concepts of acids, bases and non-aqueous solvents CO3: Develop the knowledge of separation techniques like solvent extraction and chromatographic separation. CO4: Describe various instrumental methods in chemistry like thermal analysis and absorption/emission spectroscopy.
ш	3B04CHE	Organic Chemistry I	 CO1: Understand the basics of organic chemistry including the nomenclature of acyclic and cyclic compounds and isomerism in carbon compounds CO2: Study the various reaction intermediates; their structure and stability and electron displacement in organic molecules. CO3: Develop the idea of different reaction mechanisms like substitution by electrophile and nucleophile in organic substrate. CO4: Understand hydrocarbons and their derivatives. CO5: Explain different alkyl halides, dihalides and their preparation. Understand tri-halogen derivative of methane CO6: Describe 1°, 2° and 3°alcohols; the preparation and methods to distinguish them Study the mechanism of Pinacol - Pinacolone Fries and Claisen rearrangements.

Semester	Course Code	Course title	Course outcome
1V	4B06CHE	Organic Chemistry II	 CO1:Develop the idea of aromatic compounds. Understand aromaticity, antiaromaticity and nonaromaticity and different substitution reaction in aromatic compounds. CO2: Illustrate stereo isomers, property of chirality and apply cip rules to recognize the stereochemistry. CO3: Explain the definition, classification and the nomenclature of carbohydrates and elementary study of poly saccharides starch and cellulose CO4: Understand the nomenclature of 5 and 6 membered heterocyclic compounds-peparation, properties and structure of such important compounds. CO5: Explain the mechanism of polymerization, synthesis and application of industrially important polymers
V	5B07CHE	Inorganic Chemistry-I	 CO1: Understand the general properties of elements and trends in periodic properties. CO2: Know the position of hydrogen, its isotopes; electronic configuration and physical properties of s-block elements CO3: Know the chemistry of p-block elements and comparative study based on electronic configuration, metallic and non-metallic character and exceptional behavior. CO4: Understand the position, electronic configuration and general physical and chemical properties of noble gases. CO5: Explain preparation, properties, structure and uses of some inorganic compounds of boron, phosphorous and silicon CO6: Familiarize the metal-carbon bond, properties, structure and uses of mononuclear, binuclear and trinuclear metal carbonyls-Application of 18-electron rule.
V	5B08CHE	Inorganic Chemistry –II	 CO1: Know the difference of double salts and coordination compounds, nomenclature and EAN rule and application of complex formation in qualitative and quantitative analysis. CO2: Illustrate the stability of complexes and explain factors affecting crystal field splitting and CFSE. Explain their colour, spectral and magnetic properties CO3: Understand biological functions of metal ions. CO4: Familiarize new elements, occurrence, and separation of lanthanides by ion – exchange chromatography and electronic configurations, IUPAC nomenclature of lanthanides and actinides. CO5: Know the metals and alloys and various methods for the purification of ores. Describe electrometallurgy and hydrometallurgy-application of alloy steels. CO6: Understand types, cause and theories of corrosion; factors influencing corrosion & corrosion control.

Semester	Course	Course title	Course outcome
	Code		
1	5B09CHE	Physical Chemistry – 1	 CO1: Understand the Gas laws and properties of gases, the general gas equation and ideal and non-ideal behavior of gases. CO2: Familiarize the properties of liquids, surfact tension and its determination, measurement of refractive index, optical activity and its measurement. CO3: Know the basics of Solid State, unit cells crystal structure of important ionic compounds electrical conductivity, conductor, semiconductors super conductors and magnetic properties of solids. CO4: Explain solutions, types of solutions and methods for expressing concentration. Know colligative properties, abnormal molar mass and Van't Hoff factor.
V	5B10CHE	Physical Chemistry – II	 CO1: Describe the fundamentals of thermodynamics and the first laws of thermodynamics CO2: Develop the knowledge of laws of thermodynamics; Second law and third law CO3: Understand basic concepts of chemical equilibrium, equilibrium constant –Vant Hoff reaction isotherm and isochors, homogeneous gaseous equilibria and heterogeneous equilibria. CO4: Convey the knowledge of phase equilibria. CO5: Familiarize the concept of surface chemistry, classification, preparation, structure an stability of colloids and adsorption isotherms.
VI	6B14CHE	Organic Chemistry III	 CO1: Understand the preparation and properties of carbonyl compounds and their important name reactions. CO2: Understand the preparation and properties of carboxylic acids and monocarboxylic, dicarboxylic and aromatic acids. CO3: Know the basic concepts of nitroge compounds, general methods of preparation an reactions of primary, secondary, tertiary an aromatic nitro-compounds. CO4: Describe the photochemistry and pericycli reaction photochemical reactions of acycli carbonyl compounds, Norrish type1 and Dicleavages. CO5: Familiarize the preparation and synthetic application of synthetic reagents. CO6: Understand bioorganic chemistry an natural products such as amino acids, proteins nucleic acids, terpenes, alkaloids and steroids. CO7: Know about basics of dyes and drugs antihistamines and tranquillizers, narcotics- the actions. CO8: Understand the needs, goals and twelv principles of green chemistry.

Semester	Course Code	Course title	Course outcome
			CO1: Know the basic concepts of electrical conductance, Ohm's law, Faraday's law, transference number, equivalent and molar conductance
			CO2: Describe ionic equilibria, acids and bases, Arrhenius, Lowry and Bronsted concepts.
			pH and its determination, Buffer solution, and theory of acid-base indicators.
V1	6B15CHE	Physical Chemistry III	CO3: Understand the electro chemical cells, EMF of cells, types of electrochemical series IUPAC sign convention, the standard titrations and fuel cell.
			CO4: Describe chemical kinetics, rates of chemical reactions, rate laws and rate constant catalysis, enzymes, heterogeneous catalysis
			CO5 : Know about photo chemistry, Jablonski diagrams, photochemical rate law and energy transfer in photochemical reactions.
			CO1: Learn about basics of spectroscopy,
			electromagnetic radiation, microwave
			spectroscopy, Infrared Spectroscopy, UV
			Spectroscopy, Raman Spectroscopy, NMR
			spectroscopy, mass spectroscopy.
			CO2: Understand the instrumental methods of
			chemical analysis such as paleography
VI		Physical Methods In Chemistry	amperometry, atomic absorption spectroscopy and spectrophotometer
			CO3: Explain the molecular symmetry and group
			theory: symmetry of molecules and point groups
			of simple molecules.
			CO4: Introduce the concepts and applications of
			nano science and important methods for the
			characterization of nonmaterial's.

	B.COM CO-OPERATION <u>CONTENT PAGE</u>
<section-header><section-header><section-header></section-header></section-header></section-header>	 PO 1.Critical Thinking: Acquire the ability to apply the basic tenets of logic and science to thoughts, actions and interventions. Develop the ability to chart out a progressive direction for actions and interventions by learning to recognize the presence of hegemonic ideology within certain dominant notions. Develop self-critical abilities and also the ability to view positions, problems and social issues from plural perspectives. PO 2.Effective Cltizenship: Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values that guide a republic. Develop and practice gender sensitive attitudes, environmental awareness, empathetic social awareness about various kinds of marginalization and the ability to understand and resist various kinds of discriminations. Internalize certain highlights of the nation's and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernization of the post-colonial society. PO 3.Effective Communication: Acquire the ability to speak, write, read and listen clearly in person and through electronic media in both English and in one Modern Indian Language Learn to articulate, analyze, synthesize, and evaluate ideas and situations in a well-informed manner. Generate hypotheses and articulate assent or dissent by employing both reason and creative thinking. PO 4.Interdisciplinarity: PO 4.Interdisciplinarity: PO 4.Interdisciplinarity: PO 4.Interdisciplinarity: Source as a basic interdisciplinary concern of all disciplines. Bovelop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.
PROGRAMME SPECIFIC OUTCOME (PSO)	 PSO 1: Understand the concepts and techniques of commerce and its application in business environment PSO 2: Conceive the ideas on entrepreneurship and develop the skills for setting up and management of business organizations PSO 3: Develop the skills and abilities to become competent and competitive in the business world PSO 4: Develop the competency to take wise decisions at personal and professional level PSO 5: Appraise the impact of other disciplines on the working of business

Semester	Course Code	Course title	Course outcome
1	1B01 COM (CORE –I)	MANAGEMENT CONCEPTS & PRINCIPLES	CO1:- Understand the evolution of management thoughts, concept of management, scope and it functions. CO2:- Understand the various functions of management and developing management skills. CO3:- Familiarize with current management practices and corporate strategic plannin techniques CO4:- To acquire the knowledge on organization structure, manpower planning and leadership CO5:- To acquaint students with various th techniques of controlling and co-ordination management techniques
Ι	1B02COM (CORE –II)	FINANCIAL ACCOUNTING	 CO1:- To develop among the students conceptual understanding of the fundamentals of financial accounting system and to equip ther with basic skills for recording various types of business transactions CO2:- To equip the students with the skill of preparing accounts and financial statements of various types of business units other that corporate undertakings CO3:- To understand the system of preparing counts CO4:- To familiar with the procedure involved if the joint venure acccount and average due dation. CO5:- To enable students with the skills to preparing accounts and financial statements of non proforganization
Ι	1C01 COM (COMPL - 1)	BUSINESS STATISTICS	 CO 1:- Define statistics and explain it importance, scope, applications and limitations CO2:- To familiarize the students with the basi statistical tools used to summaries and analys quantitative information for decision making. CO3:- To calculate an appropriate measure of central tendency CO4:- To calculate an appropriate measure of dispersion CO5:- To acquaint students with the concept of index number

Semester	Course Code	Course title	Course outcome
11	2B03 COM (CORE –III)	PRINCIPLES OF MARKETING	 CO1:- To provide basic knowledge about the concepts, principles, tools and techniques of marketing CO2:- To acquire knowledge on product planning and product life cycle. CO3:- To understand the various steps involved in pricing and pricing strategies. CO4:- To gain knowledge on choice of distribution channels methods of promotion CO5:- To familiarize the students with service marketing
П	2B04 COM (CORE –IV)	HUMAN RESOURCE MANAGEMENT	 CO1:- To familiarize the students with the basic principles of Human Resource Management (HRM) CO2:- Explain Human Resources Management and the activities involved in it CO3:- Acquire knowledge of manpower planning and performance appraisl. CO4:- To familiarize the students with HRD CO5:- To understand the various Human Resource problems:
П	2C02COM (COMPL- 11)	QUANTITATIVE TECHNIQUES FOR BUSINESS DECISION	 CO1:- To provide exposure on calculation of measures of correlation CO2:- To provide 1 exposure on calculation of Regression CO3:- To acquire knowledge about time series analysis CO4:- To introduce the students about the concept of probability

Semester	Course	Course title	Course outcome
	Code		
		DICACTED	CO1:- To study the emerging approaches in disaster reduction & management.CO2:- Clearly understand the various
	3A11 COM	DISASTER MANAGEMENT	environmental hazards and Disasters
111	(COMMON XI)		CO3:- To acquire knowledge about the ways of managing disaster
			CO4:- To familiarize the students with Institutional Frame work of disaster management
			CO1:- To understand basic concepts in mathematics which are applied in the managerial decision making.
ш	3A12 COM (COMMON XII)	NUMERICAL SKILLS FOR BUSINESS	CO2:- To develop an understanding of numeric problems in business and social sciences, and techniques used to model such problems.
			CO3:- To develop mathematical skills needed to analyze numeric data used in business and social sciences.
			CO1:- Understand the fundamental aspects of research in busines and management
	3C03 COM (COMPL - III)	BASICS OF RESEARCH METHODOLOGY	CO2:- Identify and define research problem
ш			CO 3:- Formulate research plan
	(,		CO 4:- Understand various methods of collecting data
			CO 5:- Prepare research report themselves
			CO1:- To help the students to acquire the conceptual knowledge of accounting for special transactions
			CO2:- To acquire the skill to prepare different types of branch accounts.
ш	3B05COM (CORE –V):	ADVANCED ACCOUNTING	CO3:- To transform the accounting knowledge of Self balancing and Accounting from Incomplete Records
			CO4:- To enable students with the skills to prepare royalty accounts C
			O5:- To gain knowledge on preparation of accounts in Hire purchase and Instalment system

Semester	Course Code	Course title	Course outcome
111	3B06 COM (CORE - VI Optional A: CO- OPERATION-I)	CO-OPERATIVE PRINCIPLES	 CO 1: Understand the concepts and principles of Cooperative movement CO2: Understand the origin of cooperative movement and the history of cooperatives in the world CO 3: Describe Indian cooperative movement, its features , structure and significance CO 4: Acquaint themselves with the system of cooperative education, training and its impact on the functioning of cooperative organizations
Ш	3C04 COM (COMPL - IV):	BUSINESS REGULATORY FRAMEWORK	 CO 1: Understand the nature of contracts and the essential elements of a valid contract CO 2: Explain the difference between a valid contract and a void contract CO 3: Understand the breach of contract and remedies available for a breach of contract CO 4: Understand various kinds of special contracts like indemnity, guarantee, bailment and agency contract
IV	4A13 COM (COMMON XII):	ENTREPRENEURSHIP	CO1:- To understand the concept, functions and growth of entrepreneurship and identify the different types of entrepreneurs CO2:- To familiarize with project identification and feasibility analysis CO3:- To learn to design and appraise the project and factors influencing the plant location. CO4:- describe the importance of entrepreneurs in the economic development of a nation CO5:- To strengthen their skill and quality as an entrepreneur
IV	4A14 COM (COMMON - XIV):	ENVIRONMENT STUDIES	CO1: Understand the components of environment and need for the protection of environment CO2: To give the students an understanding of natural resources and ecosystems CO3: Understand the effect of pollution on environment and the ways of protecting the environment CO4: Explain the social issues relating to environmental pollution
IV	4B07COM (CORE –VII):	INCOME TAX LAW AND PRACTICE-1	 CO 1 To collect the basic concepts and definitions of Income Tax Act 1961 CO 2 To Determine the residence and incidence of Tax CO 3 Understand the incomes exempt from tax of an individual CO 4 Compute income under different heads of income

Semester	Course Code	Course title	Course outcome
1V	4B08 COM (CORE - VIII)	INFORMATICS SKILLS	 CO 1: Explain the Fundamentals of Computers the use of computers in day to day application CO 2: Up to date and expand the basic informatics skills necessary in the emerging knowledge society CO 3: Effectively utilize the digital knowledge resources for their studies CO 4: Perform accounting by using the appropriate accounting packages
IV	4B09 COM (CORE -IX Optional A CO- OPERATION-II)	MANAGEMNT OF CO- OPERATIVES	CO 1: Understand kinds of cooperatives in India CO2: Understand the management and administration of different types of cooperatives CO 3: Identify the role and significance of cooperative organization in Kerala's Economy CO 4: Describe various kinds of cooperative institutions
IV	4C05 COM (COMPL - V):	CORPORATE LAW &BUSINESS REGULATION	 CO 1: Understand the provisions of Companies Act 2013 CO2: Describe the procedure for the formation, registration and winding up of the company CO 3: Explain various kinds of companies and the authorities of companies in India CO 4:Understand the management and administration of Companies
V	5B10 COM (CORE X)	COST ACCOUNTING	 CO 1: Explain the nature, scope, objectives and limitations of costing CO 2: Identify the elements of cost and describe the methods of their ascertainment and control CO 3: To able to prepare cost sheet CO 4: Explain the various methods of costing and their suitability for different industries CO 5: Ascertain the cost of production of products and jobs
v	5B11 COM (CORE - XI):	CORPORATE ACCOUNTING	CO 1: To learn the knowledge and techniques of preparing the financial statements of corporate entities CO 2: To give a detailed idea about acquisition and Profits prior to incorporation of companies CO 3: Imbibe the techniques of recording transactions and preparation of final accounts in respect of amalgamation and reconstruction CO 4: To study the procedure followed for the liquidation of companies CO 5: To compute the final accounts for a corporate group like banking companies

Semester	Course Code	Course title	Course outcome
	Cour		CO 1: Understand the term auditing, its concept principles, procedures and requirements needer for Auditing in accordance with current legar requirements and professional standards.
V	5B12 COM (CORE- XII):	AUDITING	CO 2: Familiarize with the various aspects of aud consisting of internal check, vouching, verification and valuation of assets and liabilities
			CO 3: Understand the appointment, rights, dution and the liabilities of an auditor.
			CO 4: Explain the concept of Corpora Governance and its aspects
			CO 1: To know about the clubbing and set-off ar the aggregation of income and deduction u/s 80 to 80U
v	5B13 COM (CORE - XIII):	INCOME TAX LAW AND PRACTICE- II	CO 2: Compute total income and determine the ta liability of an individual and partnership firm company and cooperative society
V			CO 3: Describe the income tax authorities, the powers and assessment procedure
			CO 4: Explain the procedure regarding deduction of tax at source, advance tax, refund, penalties are prosecution
			CO 1: Understand the historical perspective cooperative legislation in India and Kerala.
	5B14 COM (CORE -XIV Optional A : CO- OPERATION- III)	CO-OPERATIVE LAWS	CO2: Understand the provisions of Kera cooperative Societies Act 1969
V			CO 3: Describe the procedure for the formation and registration of a cooperative organisation
			CO 4: Describe the provisions of management ar winding up of cooperative societies
			CO 1: Describe the basic accounting concepts
V	5D01COM	BASIC ACCOUNTING	CO 2: Record the business transactions in the proper books of accounts
	(Open Course)		CO 3: Prepare financial statements of a so trading concern

Semester	Course Code	Course title	Course outcome
VI	6B15 COM (CORE XV)	MANAGEMENT ACCOUNTING	 CO 1. Understand the fundamental concepts of management accounting. CO 2. Acquire analytical skills associated with the interpretation of accounting reports CO 3. Apply management accounting concepts in real life situations. CO 4. Develop judgmental skills associated with the use of accounting information in decision making. CO 5. Understand the use of marginal costing and budgetary control to plan and control cost and profit.
VI	6B17 COM (CORE - XVII):	MODERN BANKING	CO 1: To provide to the students an understanding of the fundamentals of banking AND modern banking practices CO 2: Explain banking and describe the different types of banks and the functions of commercial bank CO 3: Narrate the role of RBI in the credit control, promotion and regulation of monitory system CO 4: Describe the relations ship between banker and customer and the procedure for opening and operating the account CO 5 : Understand the modern trends and technology used in banking
VI	6B18 COM (CORE - XVIII):	FINANCIAL MARKETS & SERVICES	 CO 1: Understand the financial system and its constituents CO2: Familiarize with the activities taking place in the financial markets CO 3: Appraise the various financial services available in the financial markets CO 4: Acquire knowledge about financial derivatives and their features After studying the course, student should be able to;
VI	6B19 - COM (CORE -XIX- Optional A :	CO-OPERATION-IV) CO-OPERATIVE ACCOUNTING AND LEGISLATIONS	 CO 1: Prepare and present accounting aspects of cooperative organizations CO 2: Understand the procedure of cooperative auditing CO 3: Understand the provisions regarding the settlement of disputes in cooperatives CO 4: Acquaint knowledge on the impact of various other legislations on cooperatives
VI	6B20 COM (CORE XX)	PROJECT	CO 1: Understand the method of carrying out a projectCO2: Undertake project work independently

Page **45** of **59**

	M.COM <u>CONTENT PAG</u>
PROGRAMME OUTCOME (PO)	 PO 1.Critical Thinking: Acquire the ability to apply the basic tenets of logic and science to thought actions and interventions. Develop the ability to chart out a progressive direction for actions an interventions by learning to recognize the presence of hegemonic ideology withic certain dominant notions. Develop self-critical abilities and also the ability to view positions, problem and social issues from plural perspectives. PO 2.Effective Citizenship: Learn to participate in nation building by adhering to the principles of sovereignty of the nation, socialism, secularism, democracy and the values tha guide a republic. Develop and practice gender sensitive attitudes, environmental awareness empathetic social awareness about various kinds of marginalisation and the ability to understand and resist various kinds of discriminations. Internalize certain highlights of the nation's and region's history. Especiall of the freedom movement, the renaissance within native societies and the project of modernization of the post-colonial society. PO 3.Effective Communication: Developing effective communication skills and ability to work in teams be strengthening group dynamics Learn to articulate, analyze, synthesize, and evaluate ideas and situations in well-informed manner. Generate hypotheses and articulate assent or dissent by employing bot reason and creative thinking. PO 4.Interdisciplinarity: PO 4.Interdisciplinarity: Po 4.Interdisciplinarity: Po 4.Interdisciplinarity: Po 4.Interdisciplinarity: Povelop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.
PROGRAMME SPECIFIC OUTCOMES (PSO)	 PSO1- Inculcating managerial skills and theoretical knowledge for managing business units with special focus on functional areas of business and management. PSO2- Imparting advanced accounting knowledge and skills and provid awareness regarding latest developments in the field of accounting. PSO3- Enabling learners to acquire advanced theoretical knowledge on research methods and techniques and also developing capabilities in the application of research in solving business related problems PSO4- Acquisition of expertise in specialized fields like finance, taxation marketing, management and information technology PSO5- Development of quantitative aptitude and analytical skills of the learner. PSO6- Facilitating learner to pursue career in professional areas of commerce and management such as taxation, financial services, consultancy etc

Semester	Course	Course title	Course outcome
	Code		
			CO1. To give the students an exposure to environmental dynamics of contemporary business.
			CO2. To develop the skill of decision making b analyzing the business environment an opportunities.
Ι	COM1C01	BUSINESS ENVIRONMENT AND POLICY	CO3. Detailed knowledge about the Significance and constituents of Economic environment
			CO4. Understanding about Critical elements of Regulatory Environment and Socio Cultura Environment
			CO5. Familiarization with globalization an Global Institutional Framework for Business
			CO1. This course intends to give understandin about the applications of quantitative techniques
	COM1C02- QUANTITATIVE	TECHNIQUES AND OPERATION RESEARCH	CO2. To equip the students to apply operation research techniques for decision making.
I			CO3. After learning this course, the studer should be in a position to identify appropriat parametric and non parametric test for testing the hypotheses
			CO4. Ability to develop Linear Programmin Models for business problems and solve the same
			CO5. Understand and apply network analysic techniques for project implementation
			CO1. This course intends to give understandin about the concept of Management Informatio System and its application in managerial decisio making
I	COM1C03	MANAGEMENT INFORMATION SYSTEM	CO2.Add the knowledge base of the leaner regarding the process of development an maintenance of information system in a organization.
			CO3. Imparting deep understanding about th Structure of Management Information System
			CO4. To understand the conceptual framework of system and system analysis and Design
			CO5. Strong understanding about the Dat Communication and Networking

Semester	Course Code	Course title	Course outcome
I	COM1C04	ORGANISATIONAL BEHAVIOUR	 CO1. To understand the conceptual framework of management and organizational behaviour and their applicability CO2. A very good understanding about individual behavior, personality and motivation CO3. Imparting deep understanding about group behavior and leadership related to organizational behavior CO4. Add the knowledge base of the leaner regarding change management and deal with conflict. CO5. Impart knowledge about the role of organizational culture on organizational behavior
I	COM1C05	ACCOUNTING FOR BUSINESS DECISIONS	 CO1. To acquaint the students with the tools and techniques for business decisions. CO2. Learn the theoretical foundations of financial management and financial management decisions. CO3. Imparting deep knowledge about the New Trends in Budgeting CO4. Evaluate the decisions regarding Long Term Investment CO5. Evaluate the Relationship between risk and returns and capital budgeting CO6. Understand the concepts Cost of Capital and Methods of computing cost of capital
П	COM2C06	STRATEGIC MANAGEMENT	 CO1. Strong understanding about the theoretical foundations of strategic management. CO2. Clear understanding about various models of environmental and internal analysis. CO3. Development of an idea about the strategy formulation process at the corporate level. CO4. Familiarization with various tools strategic planning and evaluation. CO5. Understanding about the modes of implementation and control of strategies. CO6. To develop among the students the skill of managing organizations in the new age.
П	COM2C07	RESEARCH METHODOLOGY & COMPUTER APPLICATION	 CO1. To make the students understand the steps in the process of Social Research. CO2. To equip the students to apply statistical tools for hypothesis test and decision making. CO3. After completing this course, the learner should be able to formulate a research design CO4. After studying the theoretical aspects of sampling design, the learner should be able to draw a sampling design. CO5. To equip the students to use computer in research CO6. Understand the technique of research reporting.

Page **48** of **59**

Semester	Course Code	Course title	Course outcome
Π	COM2C08	COSTING FOR MANAGEMENT DECISIONS	 CO1. To understand the concept and importance of cost accounting. CO2. To understand the application of cost accounting tools for generating information for managerial Decision making. CO3. Apply the marginal costing principles and cost volume profit analysis in decision making situations of businesses. CO4. Understand the concepts of Differentiat Cost Analysis and Applications in business CO5. Understand the concepts of standard costing, and the process of cost control through it CO6. Understand the concepts of Value Analysis and Cost Reduction
II	COM2C09	ADVANCED BUSINESS ACCOUNTING	 CO1. To understand new accounting concept and accounting standards CO2. After learning this course, the studen should be in a position to Value the Shares CO3. Basic understanding about the preparation of accounts of some special type of Businesse like Voyage, Farming and Investment CO4. Familiarizing the learner with the accounting for Price level changes CO5. Familiarize with Human Resource Accounting CO6. To equip the students with knowledge about Government Accounting
II	COM2C10	FINANCIAL MANAGEMENT	 CO1. Understand the conceptual framework of Financial Management CO2. To equip the students with knowledg about the Operating and Financial Leverage CO3. To equip the students with knowledg about the Dividend and Liquidity areas of financial decision making in business organizations. CO4. Strong understanding about the Capital structure and theories of capital structure CO5. To equip the students with knowledg about the Management of Working Capital

Semester	Course Code	Course title	Course outcome
Ш	COM3C11	MARKETING MANAGEMENT	 CO1. To acquaint the students with the marketing principles and practice. CO2. To understand the process of modern marketing CO3. The learner should get a clear understanding about the market segmentation process and its applications in marketing strategies CO4. Develop an idea about consumer behavior and its impact CO5. The learner should get a clear understanding about the marketing mix such as Product decisions, Pricing decisions and Promotion and Distribution decisions CO6. Develop sound ideas regarding rural
III	COM3C12	CORPORATE ACCOUNTING	 CO1. To familiarize the student knowledge about the Corporate Accounting System CO2. Develop an awareness on the accounting procedure of Amalgamation, Absorption and Reconstruction of Companies CO3. Familiarizing the learner with the accounting procedures of liquidation or companies and preparation of various statements required as per the Companies Act CO4. The learner should be able to prepare Double Account System CO5. Basic understanding about the preparation of accounts Holding Company and Subsidiaries CO6. The learner should be able to prepare the Final Accounts of Insurance Companies
Ш	COM3C13	INCOME TAX LAW AND PRACTICE	 CO1. To provide the students an in-depth knowledge of the basic concepts of Income Tax CO2. Able to compute the income from salary and house property CO3. Determine taxable profit of a business or profession CO4. Able to compute capital gain and income from other sources CO5. Able to calculate Gross Total Income of ar individual CO6. Learner shall be able to determine eligible deductions and compute Taxable Income and tax liability of an individual assesse marketing

Semester	Course Code	Course title	Course outcome
ш	COM3C14	DERIVATIVES AND RISK MANAGEMENT	CO1. Knowledge about the derivative market in India, its evolution, types, players, risks involved and basic quantitative foundations CO2. Analyze the implications of Risk in the perception of individuals and Institutions and measurement of risks CO3. Understand and explain the concept of forward market and its function, CO4. Analyze the operation and pricing of various types of futures CO5. Understand the concepts and methodolog of option trading and apply the models of pricing the option contracts CO6. Develop an idea of exchanges through swaps
ш	COM3C15	HUMAN RESOURCE MANAGEMENT	 CO1. To familiarize the students with the huma resource management processes. CO2. Acquaintance with basic concepts of HRM and performance appraisal. CO3. To sensitize them to the training process and techniques CO4. To provide them with appropriate knowledge and skills required for selecting developing and managing human resources. CO5. Understanding about variousaspects of Grievance handling CO6. Understanding about HR outsourcing HI accounting and HR audit
IV	COM4E01	SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT	 CO1. Able to understand the concepts of investments, different types of investment views of investment and process of investment and apply the theoretical knowledge is investment information for selecting the securities. CO2. Understanding the types of risk in securitimarket and applying various tools for the valuation of bonds as well as economic indicator to predict the market. CO3. Understand the tools of technical analysis analyse the patterns and trends in the market be using various tools and enable to take investment decisions after understanding market efficience level also. CO4. Applying Modern portfolio theories and construct optimum portfolios. CO5. Revising constructed portfolios as per rise and return association by using different strategies. CO6. To help the students to equip the

Page **51** of **59**

Semester	Course Code	Course title	Course outcome
IV	COM4E02	INTERNATIONAL FINANCIAL MANAGEMENT	 CO1. To introduce the basic concepts and too of International Financial Management. CO2. Familiarization with globalization internationalization of business and the international business environment. CO3. Understanding about theories of international trade, trade barriers and trade blocks. CO4. Imparting idea about various economi institutions related to international trade. CO5. Achieve high level knowledge about various aspects of international monetar system. CO6. To provide them appropriate knowledge about foreign investment and financindecisions.
IV	COM4E03	FINANCIAL MARKETS AND SERVICES	 CO1. To understand the structure, organization and working of financial markets and institution in India. CO2. To understand the various financial services available. CO3. Knowledge about the derivative CO4. Knowledge about the Development Bannin India CO5. Imparting idea about Non-Bankin Financial Institutions CO6. To provide them appropriate knowledge about the concept factoring and factoring services in India
IV	COM4E04	CORPORATE TAX MANAGEMENT AND MANAGEMENT	 CO1. To acquire the students with the methological computing total income and tax liability Association of Persons, coloperative societiand Charitable trusts CO2. Carry out assessment of companies and determine their tax liability CO3. Understanding about the assessment of tax planning and application in various situations CO4. To understand the concept of tax planning and management CO5. To familiarize with Tax planning and managerial decisions CO6. To familiarize with Tax planning and business restructuring

BBA –I	BUSINESS ADMINISTRATION CONTENT PAGE			
PROGRAMME OUTCOME (PO)	 PO 1:To equip the students with requisite knowledge, skills & right attitude necessary to provide effective leadership in a global environment. PO 2: To develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy & Society, aligned with the national priorities. PO 3: To develop proactive thinking so as to perform effectively in the dynamic socio-economic and business ecosystem. 			
	PO 4:. To harness entrepreneurial approach and skill sets.			
PROGRAMME SPECIFIC OUTCOMES (PSO)	 PSO 1: An ability to apply knowledge, skills and right attitude necessary to provide effective leadership in a global environment. PSO 2.: An ability to develop competent management professionals with strong ethical values, capable of assuming a pivotal role in various sectors of the Indian Economy & Society, aligned with the national priorities. PSO 3: An ability to develop proactive thinking so as to perform effectively in the dementic energies and huminess. 			
the dynamic socio-economic and business ecosystem. PSO 4: An ability to communicate effectively.				

Semester	Course Code	Course title	Course outcome
I	1B01 BBA	Principles & Practice of Management	CO1. To understand the principles and practices of General Management.CO2. To know the process of business management and its functions andCO3. To familiarize the students with current management practices.
I	1C01 BBA	Business Statistics	CO 1:To familiarize the students with the basic Statistical tools used to Summaries and analyze quantitative information for decision making.
I	1C01 BBA	Business Economics	CO1. To expose students to basic micro economic concepts.CO2. To apply economic analysis in the formulation of business policies.CO3. To use economic reasoning to problems of business.
п	2B02 BBA	Business Environment	CO1:To give the students an exposure to the dynamics of business environment and enable them to analyze business priorities in the changing environmental conditions.
II	2B03 BBA	Business Communication	 CO 1. To understand the concept, process and importance of communication. CO 2. To gain knowledge of media of communication. CO 3. To develop skills of effective communication-both written and oral. CO 4. To help students to acquaint with application of communication skills in the business world

Semester	Course Code	Course title	Course outcome
I	2C03 BBA	Quantitative Techniques for Business Decisions	CO 1To familiarize the student with the use of quantitative techniques in managerial decision making, Also the subject aims at developing analytical thinking and logical reasoning for effective decision making.
ш	3A11/BBA	IT in Business	CO1. To acquaint with the Information technology infrastructure CO2. To understand the concept and application of management information system CO3. To understand the scope and key issues involved in managing electronic commerce initiatives CO4. To enable the optimum utilization of internet
ш	3A12/BBA	Numerical Skills	CO1. To provide a sound working base in numerical methods CO2. To increase the student's ability to apply proper mathematical tools to specific business situation CO3. To exposes the students to the study of numerical skills as powerful tool in scientific computing
III	3B04BBA	Financial Accounting	CO1The objective of this course is to provide knowledge about Accounting Principles and their application in different business situations
ш	3B05BBA	Operations Management	CO 1:The objective is to get the students acquainted with the design aspects of operations and materials management and to develop relevant skill in managing the same.
ш	3B06BBA	Managerial skill Development Course(MSDC)	CO1. To enable the students to understand various budget proposals and its impact on the business sector CO2. To understand the economic scenario of the nation
ш	3C04 BBA	Legal Aspects of Business	CO1 The purpose of this course is to acquaint students with various laws, forces and regulatory measures governing business operations in India
ш	4A13/BBA	Entrepreneurship Development& Project Management	CO1 This course is intended to acquaint the students with the basic theories of Entrepreneurship and Project management and to motivate them to take up Entrepreneurial Activities.

Page **54** of **59**

Semester	Course Code	Course title	Course outcome
IV	4A14/BBA	Business Ethics and CSR	CO 1 To give an overview of the ethical aspects of Business and Corporate Social Responsibility
IV	4B07 BBA	Marketing Management	CO 1To acquaint the students with the Marketing principles and practices, and, to understand the process of Marketing in a business firm
IV	4B08 BBA	Corporate Accounting	CO1:The objective of this course is to help the students to acquire conceptual knowledge of the fundamentals of the corporate accounting and the techniques of preparing the financial statements.
IV	4B09 BBA	Financial Management	CO1:To familiarize the students with the fundamental principles of financial management and to equip them with the tools of effectively managing the finance of an enterprise.
IV	4C05 BBA	Business Research Methods	CO1 To enable students for acquiring basic knowledge in business Research methods and to develop basic skills in them to conduct Survey researches and case studies.
V	5B11 BBA	Cost Accounting	CO1: To acquaint students with methods and techniques of cost and management accounting at an advanced field for managerial decision making
V	5B12 BBA	Human Resource Management	CO1:To give a conceptual understanding of human resource practices in organizations.

	Course		
Semester	Code	Course title	Course outcome
v	5B13 BBA	Banking Theory Law & Practice	CO1: To give the students an exposure to the dynamics of banking business environment and enable them to analyze business priorities in the changing banking industry
v	5B14 BBA	Organizational Behavior	CO1: To familiarize the students with the basic concepts of the organizational behavior and to enhance their understanding of the interaction between the individuals and the organizations.
v	5B15 BBA	Retail management	CO 1:Understand effective methods and strategies required for retail management. Understand how to utilize resources and techniques used in retail management.
VI	6B16 BBA	Strategic Management	CO 1:The course intends to provide a theoretical frame work of strategic management and to develop an understanding about the strategic processes and their impact on a firm
VI	6B17 BBA	Capital Market& Investment Management	CO 1:To give an overview of the conceptual aspects of Capital Market and Investment Management
			CO 1:To enlighten the students on
VI	6B18 BBA	International business	International Business Environment, which includes international Financial management, International Marketing and international Currency and to study the impact of globalization on Indian Industry.
VI	6B19 BBA	Event Management	CO 1:To enable the students to understand the essentials of planning an event CO2:. To study the concept and significance of event management CO3:. To expose students to Practical aspects of organizing events of various forms.
VI	6B20 BBA	Management Accounting	CO 1To provide the students an understanding about the managerial use of data, for planning, control and decision making.
VI	6B21 BBA	Placement Training & Project Report	CO 1:To Practically understand Research Process.CO 2:To gain experience and confidence in carrying out a researchCO 3:To acquire the quality to collect data, analyze and interpret.CO4: To gain experience in writing research reports.

	STATISTICS (Complimentary for Mathematics and computer Science)			
Semester	Course Code	Course title	Course outcome	
I	1C01 STA	BASIC STATISTICS	 CO1: understand the different types of data. CO2: compute various measures of central tendency, measures of variation. CO3: analyze the relationship between two variables. CO4: acquire knowledge in time series data and compute various index numbers 	
П	2C02 STA	PROBABILITY THEORY AND RANDOM VARIABLES	CO 1: evaluate the probability of events. CO 2: understand the concept of random variables with examples in real life. CO3: calculate the probability distribution of discrete and continuous random variables. CO 4: understand the change of variable technique.	
Ш	3C03 STA	PROBABILITY DISTRIBUTIONS	CO1: compute mathematical expectation of a random variable. CO2: familiarize with different discrete probability distribution associated with real life situations. CO3: understand the characteristics of different continuous distributions. CO4: identify the appropriate probability model that can be used.	
IV	4C04 STA	STATISTICAL INFERENCE SEMESTER	CO 1: understand the uses of Chebyshev's Inequality and Central Limit Theorem. CO 2: apply various method of estimation CO 3: understand the concept of testing statistical hypotheses and its importance in real life situation CO 4: apply ANOVA	

	ORIENTAL LANGUAGE CONTENT PAGE URDU		
Semester	Course Code	Course title	Course outcome
I	ADDITIONAL COMMON COURSE 1	URDU PROSE (For BA/B Sc-Conventional)	CO1: Ability to listen, understand read and write Urdu.CO2: Awareness of the major literary trends in Urdu Literature.CO3: Analyse the humanitarian and social aspects in Urdu literature.CO4: Try to write letters in Urdu.
I	ADDITIONAL COMMON COURSE II	URDU POETRY-I (For BA/BSc Conventional)	 CO1: Listen, understand and read Urdu poems. CO2: Recite Urdu Poems with correct Pronunciation. CO3: Aware the poetical trends and Urdu culture. CO4:Understand the feelings of humanity and keep human values like Universal Brotherhood, Patriotism, Religious tolerance and nonviolence.

Semester	Course Code	Course title	Course outcome
Π	ADDITIONAL COMMON COURSE III	DRAMA AND FICTION (BA/BSc)	 CO1:Ability in listening, speaking and reading Urdu both at the theoretical and practical levels. CO2: Develop basic communication skill in Urdu. CO3: Aware famous short story writers and play writers in Urdu. CO4: Understand the social & moral values in Urdu stories and dramas
п	ADDITIONAL COMMON COURSE IV	URDU POETRY-II (BA/BSc)	 CO1: Identify a variety of forms and genres of Urdu poetry like Ghazal, Qaseeda, Masnavi, Marsiya,Rubayi and filmi Geeth. CO2:Develop the perceptive power. CO3:Understand the poetic perception of Urdu Ghazal. CO4: Present Ghazal and Geeth with correct pronunciation
ш	ADDITIONAL COMMON COURSE V	URDU NASAR (BCom/BBA/ BBARTM/BBATTM/ BBA AH/BTTM)	 CO1: Ability to listen, understand read and write Urdu. CO2: Awareness of major literary trends in Urdu literature. CO3: Analyse the humanitarian and social aspects in Urdu literature CO4: Acquire ability to evaluate Urdu prose pieces.

Semester	Course Code	Course title	Course outcome
ш	ADDITIONAL COMMON COURSE VI	Urdu Shayari (BCom/BBA/ BBARTM/BBATTM/ BBA AH/BTTM)	CO1: Understand different poetic genres of Urdu.CO2: Acquire appreciative skills in assessing and interpreting poems.CO3: Evaluate the aesthetic values of Urdu poetry.CO4: To gloat over the aesthetic elegance and nicety of Urdu poems.
IV	ADDITIONAL COMMON COURSE V11	Modern Urdu Prose (BCA/BSW/BSc (LRP)	CO1:To enable the students to listen understand read and write Urdu. CO2: Acquire an awareness of the major Literary trends in Urdu literature. CO3: Analyse the humanitarian and social aspects in Urdu literature. CO4: Acquire the ability to write letters in Urdu
IV	ADDITIONAL COMMON COURSE VIII	URDU POETRY {BCA/BSW//BSc (LRP)}	CO1:Listen, Understand and read Urdu poems.CO2: Recite Urdu poems with correct pronunciation.CO3: Understand the human sentiments and uphold human values like fraternity Tolerance and patriotic zest.CO4: Understand the poetical trends and Urdu cultural heritage.