

Programme Outcome, Programme Specific outcomes and Course outcomes for Under Graduate Programmes

BA English

PO 1. Critical Thinking

- 1.1 Acquire the ability to apply the basic tenants 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.
- 2.2 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.
- 2.3 Internalise certain highlights of the nations and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernisation 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 on modern Indian Language
- 3.2 Learn to articulate, analyse, synthesise, 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.

Course Outcomes

COMMON COURSE I Communicative English

1. Understand and apply the rubrics of English grammar
2. Recognize and apply the basic patterns in English vocabulary
3. Read and elicit data, information, inferences and interpretations based on a given material in English
4. Develop the ability to speak in English in real life situations
5. Elicit necessary information after listening to an audio material in English

6. Compose academic and non-academic writings including letters, paragraphs and essays on a given topic and CVs for specific purposes.

COMMON COURSE 2. Readings on Kerala

1. Understand the basic facts and patterns regarding the cultural evolution of Kerala through articles, poems, stories, life writings and historical narratives.
2. Acquaint with the life and works of the illustrious leaders of Kerala Renaissance and the major events.
3. Assimilate the notion of Kerala as an emerging society and critically examine the salient features of its evolution.
4. Understand the evolution and contemporary state of the concept of “gender” with reference to Kerala
5. Understand the form and content of Kerala’s struggle against “casteism” and for “secularism”
6. Develop an awareness about the ecological problems and issues in Kerala

COMMON COURSE 3. Readings on Life and Nature

1. Understand the basic themes and issues related to ecology through articles, poems, stories, life writings and historical narratives.
2. Assume ecologically friendly attitudes in events related to everyday life.
3. Identify the specific ecological problems related to Kerala.
4. Identify the major ecological movements around the world and within the country.
5. Ability to express specific opinions when confronted with ecology/development binary
6. Identify the major or minor ecological issues happening around the student’s native place.

COMMON COURSE 4. Readings on Gender

1. Understand the basic themes and issues related to gender through articles, poems, stories, life writings and historical narratives.
2. Understand the basic topics related to gender studies.
3. Understand gender as a social construct and also as a site of struggle.
4. Critically engage with certain seminal topics that have become a part of gender studies.
5. Understand the basic gender issues faced by Kerala.
6. Appreciate and use gender sensitive and politically right terms and usages in everyday life.

COMMON COURSE 5. Readings on Democracy and Secularism

1. Understand the relationship between higher education and nation building.
2. Understand the basic Constitutional values and themes through articles, poems, stories, life writings and historical narratives.
3. Evolve a deeper understanding and appreciation of the meaning of the words sovereignty, socialism, secularism and democracy in the Indian context.
4. Appreciate the relationship between higher education and the Constitutional directives regarding “scientific temper” and “the spirit of enquiry”.

5. Appreciate the prevalence of “human rights” as a prerequisite for democratic living.

COMMON COURSE 6. Readings on Philosophy of Knowledge

1. Understand the basic issues related to construction and acquisition of knowledge through articles, poems, stories, life writings and historical narratives.
2. Understand the relationship between higher education and nation building.
3. Evolve a deeper understanding of disciplines, multi-disciplinary approaches, interdisciplinary approaches and the various systems of knowledge.
4. Understand knowledge as a social construct and the dynamics of paradigm shifts.
5. Understand the epistemological and ontological factors within higher education.
6. Understand logical fallacies and apply critical thinking.

Core Course in English

CORE COURSE 1. Malayalam Literature in English Translation

CO 1: Understand the word ‘literature’ and ‘literary’ in a broad and inclusive perspective by reading select literary pieces and by applying critical reading strategies.

CO 2: Recognise and describe literary genres and its subclasses.

CO 3: Describe with examples select literary terms and concepts.

CO 4: Understand the basic issues related to translation and in that process develop a sensibility for native and local literatures.

CO 5: Use English to translate and describe everyday activities, regional themes and personal narratives by reading Malayalam literature in translation.

CO 6: Learn to read, enjoy, analyse and critically engage with select literary pieces on their own with minimum guidance.

2. Academic Writing, Methodology and Research Project

1. Understand and apply the nuances of academic writing.
2. Understand the various methodological as well as epistemological aspects of literary studies.
3. Familiarise with the approaches to literature.
4. Choose a tentative topic for the research project to be submitted in semester six

3. Old English to Medieval English Literature

1. Have an understanding of the contexts which produced Old English literature.
2. Read translation extracts from key texts of the Old English period
3. Understand the key aspects of Old English language.
4. Understand the key genres, authors, texts, styles and themes of the Medieval English Period.
5. Read excerpts from the variety of writings produced during this period.

6. Understand the key aspects of Medieval English dialects.

4. Renaissance and Restoration Literatures

1. Define Renaissance literature/ Problems of definition

2. Trace the relationship between political economy, cultural history and production of arts and literature during the early modern period

3. Read specimens of major works belonging to the Renaissance period.

4. Understand the problematics of “modernisation” of Britain including the development of political parties and parliamentary democracy through the cultural productions of Restoration period

5. Identify literary narratives that deal with slave trade and colonial aspirations.

6. Understand the development of literary criticism as a meta-narrative to literature.

7. Read specimens of major works belonging to the Restoration period.

5. The Romantic Period

1. Understand the cultural history of the period and recognise the features of literary romanticism

2. Trace the relationship between political economy, cultural history and production of arts and literature with reference to the romantic period

3. Read specimens of major works belonging to the period.

6. The Victorian Period

1. Understand a range of Victorian literature in relation to a range of contexts including Victorian anxieties about modernity, madness, sexual transgression and disease.

2. Analyze the work of a range of Victorian writers, both canonical and less well-known, and with a range of genres including the novel, short story and poetry.

3. Identify and discuss theoretical discourses concerning class, sexuality, gender and colonialism as these illuminate a range of Victorian texts.

4. Understand and successfully deploy a range of terms and concepts integral to Victorian literature.

7. The Early Twentieth Century

1. Understand the cultural, political, and stylistic protocols of modernism and its various literary movements.

2. Trace the relationship between political economy, cultural history and production of arts and literature

3. Read specimens of major works belonging to the period.

8. The Late Twentieth and Twenty-First Centuries

1. Understand the cultural, political, and stylistic protocols of post-modernism and the various literary movements
2. Understand and apply the basics of the various reading strategies that emerged during the period
3. Read specimens of major works belonging to the period.

9. Postcolonial Literatures in English

1. Understand the meaning, scope and issues related to the term postcolonial.
2. Read specimens of major works belonging to the genre.
3. Familiarise with the cardinal concepts of postcolonial theory.

10. Linguistics

1. Learn the theories regarding origin, development and history of languages.
2. Familiarise with the cardinal concepts related to “linguistics”.
3. Understand the modern directions in linguistic studies.

11. Project

1. Learn and apply specific documentation styles and methodological formalities.
2. Critically engage with a literary theme or topic.
3. Understand the basic formalities regarding research in humanities.

12. Critical Theory

1. Understand the basics of various theoretical positions in literary and culture studies.
2. Apply specific theoretical insights into the study of specific works of art as well as cultural articulations.
3. Understand the ideological assumptions underlying common-sense notions and canon formation.

13. Women’s Writing

1. Understand women’s writing as a specific genre.
2. Appreciate the variety in women’s literature and the correlation between such variety and specific socio-political contexts.
3. Understand the various dialogic positions within women’s writing

14. Indian Writing in English

1. Understand Indian Writing in English as a specific genre based on certain common socio political contexts.
2. Understand the various dialogic positions within Indian Writing in English

3. Understand the regional diversities and thematic plurality of IWE.

15. Film Studies

1. Learn the basic terminology, technical aspects, and the major movements in the history of cinema.

2. Watch select movies and analyse them with an eye on technical, thematic and socio-political aspects.

3. Develop basic knowledge and familiarity with the various trends in Indian cinema.

BA Malayalam

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PO 2. Effective Citizenship:

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.

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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

2. Learn to articulate analysis, synthesis, and evaluation of situations and themes in a well-informed manner.

3. Generate hypothesis and articulate assent or dissent by employing both reason and creative thinking.

PO 4. Interdisciplinarity:

1. Perceive knowledge as an organic comprehensive, interrelated and integrated faculty of the human mind
2. Understand the issues of environmental contexts and sustainable development as a basic interdisciplinary concern of all disciplines.
3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.

BA History

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Programme Specific Outcomes

PSO.1. Understand factual and conceptual aspects of historical changes in multiple areas of the world
PSO.2. Think contextually and critically about the past to understand human experiences
PSO.3. Analyse 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 secondary sources

PSO.5. Make logical oral presentation of factual and theoretical knowledge of historical events and changes

PSO.6. Develop rational, humanitarian, democratic and secular outlook based on historical knowledge and contemporary societal, economic and political issues

Course Outcomes

CORE COURSE 01 History of India I: Pre-historic Times to c.200 CE

CO. 1 Recognize important primary sources for the study of ancient Indian history

CO. 2 Identify early Indian settlements, centers of political and cultural importance

CO. 3 Demonstrate factual and theoretical knowledge of social, economic, cultural and political transformations in early India

CO. 4 Analyze and Explain the significance of different religious and philosophical trends in ancient India

CORE COURSE 02 Cultural Transformations in Europe

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 Europe before 1500 CE

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

CORE COURSE 03 History of India II: Polity, Society and Culture (c.200-1206)

CO. 1 Understand factual knowledge of social and political formations

CO. 2 Locate major centers political and cultural importance in India

CO. 3 Explain theories of social formation and feudalism in Indian history

CO. 4 Analyze the intellectual and cultural legacy of ancient and early Medieval India

CORE COURSE 04 History of Kerala I: Earliest Times to c. 1500 CE

CO. 1 Identify sources for the study of ancient and 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 well researched written work on any aspects of Kerala history using primary and secondary sources

CORE COURSE 05 History of India III: Sultanate to British Conquest (1206 -1757)

1. Understand socio-political formations in Medieval India
2. Describe the evolution of Indo-Saracenic art and architecture
3. Analyse and explain the formation of secular political values in India
4. Locate centres of cultural, political and commercial importance

CORE COURSE 06 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.

CORE COURSE 07 History of India IV: Colonial Transformations (1757-1885)

CO 1: Understand the concept of colonialism and its historiography in India

CO 2: Discuss critically the impact of colonial policies in political, social, economic and cultural life of Indians

CO 3: Assess the influence of social and religious reforms in the modernization of India

CO 4: Analyze and explain how anti-colonial movements originated in the nineteenth century

CO. 5 Identify major centers of commerce and anti-colonial movements.

CORE COURSE 08: History of India V: Making of the Nation (1885-1947)

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

CORE COURSE 09 History of Kerala II: Making of Modern Kerala (1500 to 1970)

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.

CORE COURSE 10: 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 CO. 5 Write well researched article on any historical events and leaders

CORE COURSE 11 Historiography: Perspectives & Practices

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

CORE COURSE 12 History of India VI: Developments since Independence (1947-2000)

CO:1 Understand political, economic and cultural changes after independence

CO:2 Assess the role of India at global level as an active member in international organisations

CO: 3 Critically examine and explain the growth of communal forces in independent India

CO: 4 Analyse and discuss the condition of marginalised communities in independent India

CORE COURSE 13 History of the Contemporary World (1945 -2000)

1. Understand major political issues and events in the world since World War II.

2. Analyze international problems in the context of diverse political interests and ideological movements

3. Interpret the present political issues in relation with pertinent international events in the twentieth century

4. Develop anti-colonial and anti-racist attitude and universal citizen concept

CORE COURSE 14 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

CORE COURSE 15 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

DISCIPLINE SPECIFIC ELECTIVE

CORE 02 Environmental History of India

CO.1 Understand the concept of environment and importance of environmental history

CO.2 Explain human interactions with environment and depletion of natural resources

CO.3 Assess the dynamic role of environmental movements in India

CO.4 Develop an attitude and awareness to protect the natural environment of the country

COMPLEMENTARY ELECTIVE 01

01 History of England I: Earliest Times to c.1600 CE

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

COMPLEMENTARY ELECTIVE 02

History of England II: From 1600 to 2000 CE

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

GENERIC ELECTIVE COURSE 01

Social Reform Movements in Kerala

1. Understand the role of Western education, missionary activities and indigenous reform movements in the making of modern Kerala
2. Evaluate the ideas, programmes and tactics of social reformers
3. Promote critical thinking about various social and religious issues in Kerala
4. Analyze and explain secular foundations of Kerala society

Bachelor of Commerce (Bcom)

PROGRAMME OUTCOMES (PO)

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Interdisciplinarity:

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 development as a basic interdisciplinary concern of all disciplines.

4.3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.

Programme Specific Outcome of Bcom degree

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.

CORE COURSE I : - MANAGEMENT CONCEPTS AND PRINCIPLES

CO1:- Understand the evolution of management thoughts, concept of management, scope and its functions.

CO2:- Familiarize with current management practices.

CO3:- Understand the importance of ethics in business.

CO4:- Acquire knowledge and capability to develop ethical practices for effective management. CO5:- Describe the emerging trends in management.

CORE COURSE II : FUNCTIONAL APPLICATIONS OF MANAGEMENT

CO 1: Describe nature and scope of financial management and the elements in the management of finance

CO 2: Enumerate marketing management and its different aspects

CO 3: Explain Human Resources Management and the activities involved in it

CO 4: Understand the modern global marketing trends and its challenges

CORE COURSE III : ADVANCED ACCOUNTING

CO 1. Understand the theoretical and practical knowledge of the basics of accounting.

CO 2. Acquire the knowledge of accounting for royalty, Consignment and Hire Purchase

CO 3. Imbibe the accounting concepts of Inland Branch Business.

CO 4. Comprehend the procedure for determining profit and financial position from incomplete records.

CORE COURSE V : CORPORATE ACCOUNTING

CO 1: Understand the mode of presentation and understanding of financial reporting.

CO 2: Learn the accounting procedure for recording transaction relating to the issue and redemption of shares and debentures.

CO 3: Imbibe the techniques of recording transactions in respect of amalgamation, reconstruction and liquidation of companies.

CO 4: Understand the concept of IFRS and Ind AS

CORE COURSE VII: BUSINESS RESEARCH METHODOLOGY

CO 1: Understand the fundamental aspects of research in business

CO2: identify and define research problem CO 3: formulate research plan

CO 4: understand various methods of collecting data CO 5: prepare research report themselves

CORE COURSE VIII : INCOME TAX LAW AND PRACTICE

CO 1 Define the basic concepts in Income tax, explain its evolution

CO 2 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

CORE COURSE IX: 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: Explain the various methods of costing and their suitability for different industries

CO 4: Ascertain the cost of production of products and jobs

CORE COURSE X : BANKING PRINCIPLES AND OPERATIONS

CO 1: Explain banking and describe the different types of banks and the functions of commercial bank

CO 2: Narrate the role of RBI in the credit control, promotion and regulation of monetary system

CO 3: Describe the relationship between banker and customer and the procedure for opening and operating the account

CO 4 : Understand the modern trends and technology used in banking

CORE COURSE XII : FINANCIAL MARKETS AND SERVICES

CO 1: understand the financial system and its constituents

CO2: familiarise 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

CORE COURSE XIII : 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.

CORE COURSE XIV: AUDITING AND CORPORATE GOVERNANCE

- CO 1: understand the term auditing, its concept, principles, procedures and requirements needed for Auditing in accordance with current legal requirements and professional standards.
- CO 2: familiarize with the various aspects of audit consisting of internal check, vouching, verification and valuation of assets and liabilities
- CO 3: understand the appointment, rights, duties and the liabilities of an auditor.
- CO 4: explain the concept of Corporate Governance and its aspects

CORE COURSE XV: INCOME TAX AND GST

- CO 1: Compute total income and determine the tax liability of an individual and partnership firm, company and cooperative society
- CO 2: Describe the income tax authorities, their powers and assessment procedure
- CO 3: Explain the procedure regarding deduction of tax at source, advance tax, refund, penalties and prosecution
- CO 4: Describe Goods and Service Tax, its levy and collection.

CORE COURSE XVII: PROJECT

- CO 1: understand the method of carrying out a project
- CO2: undertake project work independently

CORE COURSES IN THE ELECTIVE STREAM

CORE COURSE IV : 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 organisations

CORE COURSE VI : CO-OPERATION II – MANAGEMENT OF COOPERATIVES

- CO 1: Understand kinds of cooperatives in India

- CO 2: 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

CORE COURSE XI : CO-OPERATION III – CO-OPERATIVE LAWS

- CO 1: Understand the historical perspective of cooperative legislation in India and Kerala.
- CO2: Understand the provisions of Kerala cooperative Societies Act 1969
- CO 3: Describe the procedure for the formation and registration of a cooperative organisation
- CO 4: describe the provisions of management and winding up of cooperative societies

CORE COURSE XVI : CO-OPERATION IV – CO-OPERATIVE ACCOUNTING AND LEGISLATIONS

- CO 1: prepare and present accounting aspects of cooperative organisations
- 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.

B.COM GENERAL AWARENESS COURSES

GENERAL AWARENESS COURSE I : BUSINESS STATISTICS AND BASIC NUMERICAL SKILLS

- CO 1: Define statistics and explain its importance, scope, applications and limitations
- CO 2: Understand the basic knowledge of statistical techniques, which are applicable to business. CO 3: understand basic concepts in mathematics, which are applied in the managerial decision making.
- CO 4: Develop the basic mathematical skill needed for analyzing numeric problems related to business

GENERAL AWARENESS COURSE II : ENTREPRENEURSHIP DEVELOPMENT

- CO 1: Identify the characteristics of an entrepreneur
- CO 2: describe the importance of entrepreneurs in the economic development of a nation
- CO 3: identify the different types of entrepreneurs
- CO 4: to strengthen their skill and quality as an entrepreneur

GENERAL AWARENESS COURSE III : GENERAL INFORMATICS SKILL

- 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: State the areas where IT can be used effectively

CO 5: Perform accounting by using the appropriate accounting packages

GENERAL AWARENESS COURSE IV : ENVIRONMENTAL STUDIES AND DISASTER MANAGEMENT

CO 1: Understand the components of environment and need for the protection of environment

CO 2: Understand the effect of pollution on environment and the ways of protecting the environment

CO 3: Explain the social issues relating to environmental pollution

CO 4: Clearly understand the various environmental hazards and the ways of managing disaster

B.COM COMPLEMENTARY ELECTIVE COURSES

COMPLEMENTARY COURSE I: QUANTITATIVE TECHNIQUE FOR BUSINESS DECISIONS

CO 1:- Acquaint with the basic statistical tools, which can be applied in business and economic situations.

CO 2:- Develop knowledge in quantitative techniques, which help in tackling various problems for modern business.

CO 3:- Understand and solve problems in probability, correlation and regression.

CO 4:- Understand the effect of trend and seasonal variations on business.

CO 5:- Familiarize with the testing of hypothesis.

COMPLEMENTARY COURSE II: 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

COMPLEMENTARY COURSE III: BUSINESS ECONOMICS

CO 1: Understand the concept of economics and its use in business

CO 2: Understand the concept of demand, elasticity and demand forecasting

CO 3: Understand production function and law of production

CO 4: Understand the methods of determining price of a product

CO 5: Explain the methods of computing national income.

CO 6: Conceive the developmental issues of Indian economy and Kerala economy

COMPLEMENTARY COURSE IV: CORPORATE LAW AND BUSINESS REGULATIONS

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

B.COM GENERIC ELECTIVE COURSES

OFFERED TO STUDENTS OF OTHER DEPARTMENTS

GENERIC ELECTIVE COUR PROGRAMME OUTCOMES (PO)

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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.

2.2. 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.

2.3. Internalise certain highlights of the nation's and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernisation 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, analyse, synthesise, 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.

4.2. 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 solving and evolving a comprehensive perspective.

PROGRAMME SPECIFIC OUTCOME OF B.COM DEGREE

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.

CORE COURSE I : - MANAGEMENT CONCEPTS AND PRINCIPLES

CO1:- Understand the evolution of management thoughts, concept of management, scope and its functions.

CO2:- Familiarize with current management practices.

CO3:- Understand the importance of ethics in business.

CO4:- Acquire knowledge and capability to develop ethical practices for effective management. CO5:- Describe the emerging trends in management.

CORE COURSE II : FUNCTIONAL APPLICATIONS OF MANAGEMENT

CO 1: Describe nature and scope of financial management and the elements in the management of finance

CO 2: Enumerate marketing management and its different aspects

CO 3: Explain Human Resources Management and the activities involved in it

CO 4: Understand the modern global marketing trends and its challenges

CORE COURSE III : ADVANCED ACCOUNTING

CO 1. Understand the theoretical and practical knowledge of the basics of accounting.

CO 2. Acquire the knowledge of accounting for royalty, Consignment and Hire Purchase

CO 3. Imbibe the accounting concepts of Inland Branch Business.

CO 4. Comprehend the procedure for determining profit and financial position from incomplete records.

CORE COURSE V : CORPORATE ACCOUNTING

CO 1: Understand the mode of presentation and understanding of financial reporting.

CO 2: Learn the accounting procedure for recording transaction relating to the issue and redemption of shares and debentures.

CO 3: Imbibe the techniques of recording transactions in respect of amalgamation, reconstruction and liquidation of companies.

CO 4: Understand the concept of IFRS and Ind AS

CORE COURSE VII: BUSINESS RESEARCH METHODOLOGY

CO 1: Understand the fundamental aspects of research in business

CO2: identify and define research problem CO 3: formulate research plan

CO 4: understand various methods of collecting data CO 5: prepare research report themselves

CORE COURSE VIII : INCOME TAX LAW AND PRACTICE

CO 1 Define the basic concepts in Income tax, explain its evolution

CO 2 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

CORE COURSE IX: 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: Explain the various methods of costing and their suitability for different industries

CO 4: Ascertain the cost of production of products and jobs

CORE COURSE X : BANKING PRINCIPLES AND OPERATIONS

CO 1: Explain banking and describe the different types of banks and the functions of commercial bank

CO 2: Narrate the role of RBI in the credit control, promotion and regulation of monetary system

CO 3: Describe the relationship between banker and customer and the procedure for opening and operating the account

CO 4 : Understand the modern trends and technology used in banking

CORE COURSE XII : FINANCIAL MARKETS AND SERVICES

CO 1: understand the financial system and its constituents

CO2: familiarise 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

CORE COURSE XIII : 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.

CORE COURSE XIV: AUDITING AND CORPORATE GOVERNANCE

CO 1: understand the term auditing, its concept, principles, procedures and requirements needed for Auditing in accordance with current legal requirements and professional standards.

CO 2: familiarize with the various aspects of audit consisting of internal check, vouching, verification and valuation of assets and liabilities

CO 3: understand the appointment, rights, duties and the liabilities of an auditor.

CO 4: explain the concept of Corporate Governance and its aspects

CORE COURSE XV: INCOME TAX AND GST

CO 1: Compute total income and determine the tax liability of an individual and partnership firm, company and cooperative society

CO 2: Describe the income tax authorities, their powers and assessment procedure

CO 3: Explain the procedure regarding deduction of tax at source, advance tax, refund, penalties and prosecution

CO 4: Describe Goods and Service Tax, its levy and collection.

CORE COURSE XVII: PROJECT

CO 1: understand the method of carrying out a project

CO2: undertake project work independently

CORE COURSES IN THE ELECTIVE STREAM

CORE COURSE IV : 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 organisations

CORE COURSE VI : CO-OPERATION II – MANAGEMENT OF COOPERATIVES

CO 1: Understand kinds of cooperatives in India
CO 2: 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

CORE COURSE XI : CO-OPERATION III – CO-OPERATIVE LAWS

CO 1: Understand the historical perspective of cooperative legislation in India and Kerala.
CO2: Understand the provisions of Kerala cooperative Societies Act 1969
CO 3: Describe the procedure for the formation and registration of a cooperative organisation
CO 4: describe the provisions of management and winding up of cooperative societies

CORE COURSE XVI : CO-OPERATION IV – CO-OPERATIVE ACCOUNTING AND LEGISLATIONS

CO 1: prepare and present accounting aspects of cooperative organisations
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.

B.COM GENERAL AWARENESS COURSES

GENERAL AWARENESS COURSE I : BUSINESS STATISTICS AND BASIC NUMERICAL SKILLS

CO 1: Define statistics and explain its importance, scope, applications and limitations
CO 2: Understand the basic knowledge of statistical techniques, which are applicable to business.
CO 3: understand basic concepts in mathematics, which are applied in the managerial decision making.
CO 4: Develop the basic mathematical skill needed for analyzing numeric problems related to business

GENERAL AWARENESS COURSE II : ENTREPRENEURSHIP DEVELOPMENT

CO 1: Identify the characteristics of an entrepreneur
CO 2: describe the importance of entrepreneurs in the economic development of a nation
CO 3: identify the different types of entrepreneurs

CO 4: to strengthen their skill and quality as an entrepreneur

GENERAL AWARENESS COURSE III : GENERAL INFORMATICS SKILL

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: State the areas where IT can be used effectively

CO 5: Perform accounting by using the appropriate accounting packages

GENERAL AWARENESS COURSE IV : ENVIRONMENTAL STUDIES AND DISASTER MANAGEMENT

CO 1: Understand the components of environment and need for the protection of environment

CO 2: Understand the effect of pollution on environment and the ways of protecting the environment

CO 3: Explain the social issues relating to environmental pollution

CO 4: Clearly understand the various environmental hazards and the ways of managing disaster

B.COM COMPLEMENTARY ELECTIVE COURSES

COMPLEMENTARY COURSE I: QUANTITATIVE TECHNIQUE FOR BUSINESS DECISIONS

CO 1:- Acquaint with the basic statistical tools, which can be applied in business and economic situations.

CO 2:- Develop knowledge in quantitative techniques, which help in tackling various problems for modern business.

CO 3:- Understand and solve problems in probability, correlation and regression.

CO 4:- Understand the effect of trend and seasonal variations on business.

CO 5:- Familiarize with the testing of hypothesis.

COMPLEMENTARY COURSE II: 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

COMPLEMENTARY COURSE III: BUSINESS ECONOMICS

- CO 1: Understand the concept of economics and its use in business
- CO 2: Understand the concept of demand, elasticity and demand forecasting
- CO 3: Understand production function and law of production
- CO 4: Understand the methods of determining price of a product
- CO 5: Explain the methods of computing national income.
- CO 6: Conceive the developmental issues of Indian economy and Kerala economy

COMPLEMENTARY COURSE IV: CORPORATE LAW AND BUSINESS REGULATIONS

- 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

B.COM GENERIC ELECTIVE COURSES

OFFERED TO STUDENTS OF OTHER DEPARTMENTS

GENERIC ELECTIVE COURSE IV: INSURANCE AND RISK MANAGEMENT

- CO 1: explain the concept of insurance, its regulations and types
- CO 2: understand the concept insurance risk and its management

SE IV: INSURANCE AND RISK MANAGEMENT

- CO 1: explain the concept of insurance, its regulations and types
- CO 2: understand the concept insurance risk and its management

Programme outcome, Programme Specific Outcome and Course outcomes of Post Graduate Programmes

Mcom

Course Outcomes

COM1C01 BUSINESS ENVIRONMENT AND POLICY

1. To give the students an exposure to environmental dynamics of contemporary business.
2. To develop the skill of decision making by analyzing the business environment and opportunities

COM1C02 QUANTITATIVE TECHNIQUES AND OPERATION RESEARCH

1. To make the students understand some of the basics of quantitative techniques

2. To equip the students to apply operation research techniques for decision making.

COM1C03 MANAGEMENT INFORMATION SYSTEM

To provide a basis understanding of the concept of Management Information System, its application in managerial decision making and the process of development and maintenance of information system in an organization.

COM1C04 ORGANISATIONAL BEHAVIOUR

1. To understand the conceptual framework of management and organizational behaviour.
2. To understand the applicability of the concept.

COM1C05 ACCOUNTING FOR BUSINESS DECISIONS

To acquaint the students with the tools and techniques for business decisions.

COM2C06 STRATEGIC MANAGEMENT

1. To give the students an awareness about the importance of strategic management in modern organizations.
2. To give the students an in-depth knowledge in Strategic management process.
3. To develop among the students the skill of managing organizations in the new age.

COM2C07 RESEARCH METHODOLOGY & COMPUTER APPLICATION

1. To make the students understand the steps in the process of Social Research.
2. To equip the students to apply statistical tools for hypothesis test and decision making

COM2C08 COSTING FOR MANAGEMENT DECISIONS

1. To understand the concept and importance of cost accounting.
2. To understand the application of cost accounting tools for generating information for managerial Decision

COM2C09 ADVANCED BUSINESS ACCOUNTING

1. To understand new accounting concepts.
2. Expose the students to advanced accounting issues and practices.

COM2C10 FINANCIAL MANAGEMENT

Understand the conceptual framework of Financial Management and to equip the students with knowledge about the Financing, Dividend and Liquidity areas of financial decision making in business organizations

COM3C11 MARKETING MANAGEMENT

1. To acquaint the students with the marketing principles and practice.
2. To understand the process of modern marketing

COM3C12 CORPORATE ACCOUNTING

To familiarize the student knowledge about the Corporate Accounting System,

MA history

Course Outcomes

HIS1C01 Social Formations in Pre-Modern Kerala

An attempt is made in the course in favour of analyzing the material process of human interactions with the technology and strategies of subsistence in Kerala History from Pre historic time. The content of the course is based on a fresh evaluation of sources combined with the benefits of conceptual insights and methodological sophistication embodied in recent social scientific researches and acquaints students with series of inter-related significant cultural transformations. The course definitely sheds much welcome light on such complex centers of the pre modern state and society in Kerala. The incorporation of the findings of the latest research the students will be able to update their knowledge.

CORE COURSE CODE HIS1C02 State and Society in Early India

The course introduces the students to recent knowledge and nascent trends in research on early Indian History. The nature Nature of state and society in early India with regional variations is the thrust area of the course. The purpose of the course is to give students a graphic idea about the material and non-material aspects of Indian cultural evolution till the extinction of mauryas. The megalithic tradition and material culture of ancient Tamilakam are paid due regard. The materials contained in the course emanate from a close scrutiny of original sources. Students are made to take note of the new stock of information that yielded to the spade of the archeologist and preservative scholar.

CORE COURSE CODE-HIS1C03 BRONZE AGE CIVILIZATION

The course focuses on the beginning of the Bronze Age which was characterized by the introduction of metal and metal implements into human society. The unorganized settlements of humans that were characteristic of the Stone Age developed into highly evolved civilizations. The Bronze Age saw the earliest written script and witnessed much evolution in society and life. The achievements of ancient civilizations have become a source of mystery and learning for archaeologists and historians. The development of the Mycenaean Civilization in Greece during the Bronze Age laid the foundation for the development of the Classical Greek civilization.

CORE COURSE CODE H 27 IS1C04 ARCHEOLOGICAL HISTORY OF INDIA

This course is designed to further the holistic understanding of Ancient Indian culture in its entire parameters. This course provides a sound grounding of India's archaeological history in all its continuities and diversities from the palaeolithic beginnings to the Bronze Age cultures, focusing on topics such as the impact of geological, climatic and ecological factors on prehistoric societies. It helps in promoting the conservation of our heritage and opportunities in the streams of archaeology and anthropology.

CORE COURSE CODE : HIS2C05 COLONIAL PROCESS AND RESISTANCE MOVEMENTS IN KERALA

The course is included in the syllabus in order to give students a graphic grasp of such cardinal themes in the history of modern Kerala as the establishment of British supremacy over various regions of Kerala, stiff resistance offered by various patriotic elements, peasant uprisings in Malabar, the anti-caste and caste reform movements which ushered in a new social order, and the nationalist and revolutionary movements in Travancore, Cochin and Malabar. The new dimensions pursued in the historical research of modern Kerala definitely help students comprehend the problems and perspectives of the themes in a better way. The inclusion of some new interpretations that evolved in the light of modern historical theories adds to the charm of the course

CORE COURSE CODE-HIS2C06 State and Society in Early Medieval India

What constitutes the content of the course is the presentation of the social and cultural life of medieval India from the rise of the Gupta to the advent of the Mughals in its correct perspective. Students are made to understand the rise and fall of empires with reference to the material base and dynastic history is treated only in the broadest outline. Recent historical research has been introduced into this course by bestowing elements of continuity and change in society. The social cross section of medieval India is brought into focus and the student could get a rational and scientific view on this paper.

CORE COURSE CODE-HIS2C07 IRON AGE Civilizations

The course is designed to provide adequate understating of the transition of human civilization from Bronze to Iron Age. It intends to provide the linkages of continuous human strategies to survive, adapting more efficiently, competing with demands on the resources of a given environment. The course shall provide the students with a general introduction to the social formations of Iron Age of Greece and Rome

CORE COURSE CODE-HIS2C08 Historical Method

The course is meant to impart a thorough and update knowledge in historical research methodology. Such a knowledge is indispensable for a student bent upon conducting scientific enquiry and undertaking dedicated research. The course familiarizes the students on history with the techniques of presenting past events in their correct perspective. The course deals with diligent collection of all relevant sources, careful sifting of the material, critical examination of the literal and real meaning of the text, through enquiry into the motives and intentions of the author in making his observations and penetrating scrutiny to eliminate all possible errors

CORE COURSE CODE : HIS3C09 History of Contemporary Kerala

CORE COURSE CODE-HIS3C10 State And Society In Late Medieval India

An earnest endeavour is made in the course to question the assumption underlying the established historiography on Late Medieval India. Students are, by all means, benefited from the reconstruction in fascinating details of social; and state. Depiction of the material culture of these states with special reference to agrarian system is indeed illuminating. The inadequacies of conventional interpretations are exposed in such a manner as to kindle the curiosity of students and to promote meritorious research.

CORE COURSE CODE-HIS3C11 INDIA IN THE PROCESS OF MAKING A NATION

The course focuses on forces, movements and institutions rather than details of military and diplomatic events in modern India. The developments in Indian Society, economy and polity in the 18th century are discussed in order to draw the attention of students to the historical conditions which enabled a company of foreign merchants to conquer the vast country. The purpose of the course is to communicate to the students the nature of British imperialism and politics pursued by the colonial masters in India, as well as their impact on Indian economy, society, culture, and administrative system. The contradictions between colonial performances are adequately exposed.

CORE COURSE CODE-HIS3C12 The Rise of the Modern West

This course is intended to equip the students with the contemporary study of modern world history and analyze the debates on clash of civilizations; historians are trying to achieve a better understanding of how the modern world developed from the contributions of many civilizations. Historians today are also trying to understand how people's responses to varying climates and environments shaped history in different times and places.

CORE COURSE CODE-HIS4C13 CONTEMPORARY INDIA IV SEMESTER MA HISTORY

This paper is introduced into this programme to give an awareness to the students on the developmental strategy adopted by the pre India Governments. The study of linguistic problem, changes in the political and social structures and the recent movements towards alternate politics and the peculiarity of contemporary culture will help the students to extract a correct picture of contemporary Indian society. The impact of globalization on Indian Nationalism is also come under a critical study and thus the students who come out of this course could give positive suggestions to many vexed problem that India faces today in National and Inter National Level.

CORE COURSE CODE-HIS4C14 CONTEMPORARY WORLD

The course is prescribed primarily with a view to giving students a clear picture of the current affairs of the world and there by promoting International understanding in the best possible way. Today we are living in a shrinking world. The swift growth of means of communication has hastened fruitful interactions between nations. In the present age of globalization the world has become as compact as a village. The course is meant to enable students to appraise international developments in a sequential manner.

CORE COURSE CODE-HIS4C15 HISTORIOGRAPHY

The Past remains constant, but the writings about the past change. The course entitled 'Historiography' is meant to impress upon the students this eternal and irreconcilable dichotomy between the past in the absolute and its relative character in the representation that are done down the ages. Among the social sciences, history is the only discipline dating back to the very dawn of civilization, maintaining its unbroken hold on human mind. Of late, however, it is passing through an existential crisis being confronted with powerful projection of the past in electronic media and intense attacks mounted by the post modernists rejecting its claim to authenticity and objectivity. The course highlights the necessity of evolving a suitable strategy for the makeover of history from its unidimensional 'grand narrative' character to a multidimensional 'meta narrative' perspective on the past. Then course

enables to students to analyse critically the approaches of Positivist historians, the Annals historians and the Post Structuralism historians.

Batchelor of Business Administration

PO 1. Critical Thinking:

1. Acquire the ability to apply the basic tenets of logic and science to thoughts, actions and interventions.
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.
3. Develop self-critical abilities and also the ability to view positions, problems and social issues from plural perspectives.

PO 2. Effective Citizenship:

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.
2. Develop and practice gender sensitive attitudes, environmental awareness, the ability to understand and resist various kinds of discriminations and empathetic social awareness about various kinds of marginalisation.
3. Internalise certain highlights of the nations and region's history. Especially of the freedom movement, the renaissance within native societies and the project of modernisation of the postcolonial society.

PO 3. Effective Communication:

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
2. Learn to articulate analysis, synthesis, and evaluation of situations and themes in a well informed manner.
3. Generate hypothesis and articulate assent or dissent by employing both reason and creative thinking.

PO 4. Inter disciplinarity:

1. Perceive knowledge as an organic comprehensive, interrelated and integrated faculty of the human mind
2. Understand the issues of environmental contexts and sustainable development as a basic interdisciplinary concern of all disciplines.
3. Develop aesthetic, social, humanistic and artistic sensibilities for problem solving and evolving a comprehensive perspective.

CORE COURSE I : PRINCIPLES AND PRACTICES OF MANAGEMENT

Course Outcomes:

CO 1: Acquaint with the basics of management.

CO2: Understand the process and functions of management.

CO3: Familiarize the students with the current management practices.

Co4: Develops administrative skills

COMPLEMENTARY ELECTIVE COURSE I: STATISTICS FOR BUSINESS

DECISIONS

Course Outcomes:

CO1: Understand the importance and relevance of statistics, primary data, secondary data and the statistical technique as applicable to business

CO2: Classify, tabulate and represent the statistical data in appropriate manner using statistical methods

CO3: Analysis trend and seasonality in a time series data

CO4: Construct index numbers and enable to compare the price movements of commodities over different time periods.

CO5: Identify the correlation between variables

CO6: Problem solving and fit the regression line which enable to draw conclusion about data distribution.

1. COMPLEMENTARY ELECTIVE COURSE II: MANAGERIAL ECONOMICS

Course Outcomes:

CO1.Understand basic managerial economic concepts

CO2.Understands economics and related disciplines and relationships

CO3. Apply economic analysis in the formulation of business policies

CO4.Use economic reasoning to problems of business

II SEMESTER

1. CORE COURSE II : BUSINESS ENVIRONMENT

Course Outcomes:

CO 1: Acquire in-depth knowledge about different environment in business climate.

CO2: Understand the minor and major factors affecting the business in various streams

CO3: Familiarize the role of socio-cultural factors on development of economy and business.

CO4: Develop good business policies.

2. COMPLEMENTARY ELECTIVE COURSEIII: QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

Course Outcomes:

CO1. Understands concepts of quantitative techniques

CO2. Develops analytical thinking and logical reasoning for effective decision making

CO3. Apply probability theories in real life situations

CO4. Understands theoretical distributions and hypothesis testing and its applications in

live situations

3. CORE COURSE III : ENTREPRENEURSHIP DEVELOPMENT

Course Outcomes:

CO 1: Understand different stages of business and create innovative thinkers to take forward new initiatives.

CO2: Acquaint them with the challenges faced by the entrepreneur

CO3: Familiarize the students the entrepreneurship opportunities available in the society.

CORE COURSE IV : FINANCIAL ACCOUNTING

Course Outcomes:

CO4: Develop the motivation to enhance entrepreneurial competency.

CO1: Understands accounting concepts and principles

CO2: Apply knowledge regarding concepts in the preparation of final accounts of sole traders

CO3: Understands the basic concepts of company, shares and share capital

CO4: Demonstrates skills in preparation of final accounts of companies

CORE COURSE V: MARKETING MANAGEMENT

Course Outcomes:

CO 1. Develop knowledge on the concept modern marketing, marketing environment, marketing mix, market segmentation and target marketing.

CO 2. Enhance knowledge on product decision, product mix, product life cycle, pricing strategies and price discrimination

CO 3. Apply the concept of market promotion, market promotion mix and sales promotion techniques in real business situations.

CO 4. Understand the new market realities, direct marketing, online marketing and customer relationship marketing.

CO 5. Identify the key characteristics of customer relationship marketing and common draw back.

CO 6. Develop idea on branding and strategies of branding

CO 7. Acquire skill in preparing advertisement copy very effectively.

SKILL ENHANCEMENT COURSE I: NUMERICAL SKILLS

Course Outcomes:

CO 1. Understand common numerical methods

CO 2. Apply numerical methods to obtain approximate solutions to mathematical problems

CO 3. Analyses and evaluate the accuracy of common numerical methods

CO 4. Derive numerical methods for various mathematical operations and tasks

ABILITY ENHANCEMENT COURSE I: PERSONALITY DEVELOPMENT AND COMMUNICATION SKILLS

Course Outcomes:

CO 1: Understand the 'self' through analysis of one's own strengths, weaknesses, opportunities and threats to face the challenging and competitive world.

CO2: Set new goals specific, measurable, achievable, realisable and time-bounded to reshape the personality and identify the shortcomings to be corrected.

CO3: Develop inter personal skills and problem solving skills.

CO4: Understand the role of body language in effective communication.

CO5: Critically evaluate the need for stress management and experience the essence of different techniques in reducing stress.

CO6: Perform effectively the assigned work to the fullest satisfaction; with utmost concentration and self motivation to achieve success in near future.

COMPLEMENTARY ELECTIVE COURSE 4: LEGAL ASPECTS OF BUSINESS

Course Outcomes:

CO 1. Understand the conditions and rules that are applicable to a contract and the importance of law in business.

CO 2. Identify the important and relevant documents needed for registering Indian companies.

CO 3. Awareness about the latest amendments in the Indian Companies Act

CO 4. Develop knowledge on the Sale of Goods Act, GST, the application of CGST, SGCT and its challenges and opportunities.

CO 5. Apply the knowledge on consumer protection Act, rights of consumer and dispute redressal agencies in real life situations.

CORE COURSE VI : HUMAN RESOURCE MANAGEMENT

Course Outcomes:

CO1:understand basic concept and principles of Human Resource Management.

CO2: sensitize to the training process and methods.

CO3: equip with the importance of the performance management system in enhancing employee performance.

CO4: equip with the importance of the performance management system in enhancing employee performance.

CORE COURSE VII : FINANCIAL MANAGEMENT

Course Outcomes:

CO 1. Understand the concept and objective of financial management

CO 2. Develop the ability to select the feasible and viable investment proposal

CO 3. Apply decision making tools in organizational context

CO 4. Ability to assess the risk and return of investment projects

CORE COURSE VIII : OPERATIONS MANAGEMENT

Course Outcomes:

CO 1: Understand the transformation system.

CO2: Identify the components involved in designing effective operations system.

CO3: Understand the meaning and importance of managing quality.

CO4: Understand the meaning and importance of productivity and ways to improve productivity.

CO5: Understand the decisions and process of operations management in business firms

SKILL ENHANCEMENT COURSE II: IT TOOLS FOR BUSINESS

Course Outcomes:

CO 1: Understand the working on word, PowerPoint, Excel etc.

CO2: Develop basic computer awareness for letter drafting, Slide making, Payroll preparation

CO3: Understand the various shortcuts for faster functioning on the computer system

ABILITY ENHANCEMENT II: ENVIRONMENTAL STUDIES

Course Outcomes:

CO1.Acquire knowledge about environment and enable to contribute towards maintaining and

improving the quality of the environment.

CO2. Understand the importance of protecting the environment and effect of environmental

hazards

CO3. Analysis the ecosystem and the bio diversity nature of our country

CO4. Apply the awareness to point our Hot -spot of bio diversity in India and its conservation

CO5. Identify the effect of environmental Degradation and the role of Government in protecting

the environment

CO6. Formulate some action plan to engage in activities for preventing environmental degradation.

CORE COURSE IX : INDUSTRIAL VISIT AND REPORT

Course Outcomes:

CO 1: acquire hands on experience of how industry operations are executed

CO2: analyses real life environment of business

CO3: enhance interpersonal skills and communication techniques.

CO4: acquire practical knowledge of industry practices and regulations

CORE COURSE X: BUSINESS RESEARCH METHODS

Course Outcomes:

CO 1. Acquire basic concepts of research and its types

CO 2. Gain insight and acquire the ability to apply different research designs

CO 3. Acquire skill of data processing in terms of tabulation and classification.

CO4. Generate the ability to write research reports based on approved formats

CORE COURSE XI : ACCOUNTING FOR MANAGEMENT

Course Outcomes:

CO 1. Understand the concepts of cost and management accounting

CO 2. Prepare cost sheet and budgets of an organisation

CO 3. Analyse financial statements of corporate organisations using accounting ratios

CO4. Apply the concepts of marginal costing and standard costing in decision making

CORE COURSE XIV: ORGANISATION BEHAVIOUR

Course Outcomes:

CO1. Understand concepts, theories and techniques in the field of human behavior at individual, group and organization level.

CO 2. Understand personality determinants within personal and organizational context.

CO3. Understand concepts of learning and motivation and its context in organizational setting.

CO4. Identify the role and relevance of group dynamics in organizational management.

CORE COURSE XV: BANKING THEORY AND PRACTICE

Course Outcomes:

CO1. Acquire knowledge about basics of banking

CO2. Understands the law and practices of banking

CO3. Understands the various banking terminologies

CO4. Acquire knowledge of modern banking practices

CORE COURSE XVI : PROJECT REPORT AND VIVA VOCE

Course Outcomes:

CO1: Analyses real life situations

CO2: Acquires group dynamic skills by group involvement

CO3: Develops solutions or inferences on the problem of study

CO4: Sythesis facts in the form of report

DISCIPLINE SPECIFIC ELECTIVE COURSE I

FINANCE

1. CORE COURSE XII (DSEC):-ADVANCED FINANCIAL MANAGEMENT

Course Outcomes:

CO1: To familiarize the students with advanced financial analysis and Decisions.

CO2: To equip the students with knowledge about the financing, dividend and liquidity areas of

financial decision making in business organisation.

CO3: Demonstrate the importance of working capital management and the tools to manage it.

CO4: Provide the learners with the skills to evaluate complex investment situations.

2. CORE COURSE XIII (DSEC): INCOME TAX LAW AND PRACTICE

Course Outcomes:

CO1: understand the basic concepts and definitions under the Income Tax Act,1961.

CO2: Acquire knowledge about Computation of Income under different heads of Income of Income Tax Act,1961.

CO3: Acquire Knowledge about the submission of Income Tax Return, Advance Tax, Tax

deducted at Source, Tax Collection Authorities.

CO4: Acquire Competency in taking up employment in Tax planning and management.

CORE COURSE XVII (DSEC): INSURANCE AND RISK MANAGEMENT

Course Outcomes:

CO1: Demonstrate a working knowledge of the language and procedures associated with risk management.

CO2: Perform risk management review for individuals and organizations.

CO3: Apply insurance contracts to address risk management needs of individuals and organizations.

CO4: Analyze information to determine if a loss exposure may be covered by property insurance contract(s).

COURSE XVIII (DSEC): STOCK AND COMMODITY MARKETS

Course Outcomes:

CO 1. Acquire knowledge on conceptual framework of Stock Markets and Commodity Market functioning in the economy.

CO 2. Understand different modes of trading.

CO 3. Demonstrate skill in terms of stock and derivative trading.

HUMAN RESOURCE MANAGEMENT

CORE COURSE XII (DSEC); HUMAN RESOURCE DEVELOPMENT

Course Outcomes:

CO1: Understand the HRD Practices in corporates

CO2: Contribute to the development and improvement of Organisation's systems and strategies leading to an optimal HRD Climate.

CO3: evaluates the performance management Programme

CO4: contribute to the development, implementation and evaluation of employee recruitment, selection and retention plans

CORE COURSE XIII (DSEC) : PERFORMANCE AND COMPENSATION

MANAGEMENT

Course Outcomes:

CO1: Understand concepts of performance and compensation management and how to use them to face the challenges of attracting, retaining and motivating employees to high performance.

CO2. Describe the process and evaluate the implications of job evaluation

CO3. Illustrate different ways to strengthen the pay for performance link

CO4. Understand the legally required employee benefits

CORE COURSE XVII (DSEC): COUNSELLING AND NEGOTIATION SKILLS FOR MANAGERS

Course Outcomes:

CO1: -Understand the behavioural issues at work place

CO2: Understand basic concepts of counseling and negotiations.

CO3. Understand the role of negotiations in organisations

CO4: Acquire negotiation skill to deal organizational issues

CORE COURSE XVIII (DSEC): ORGANISATIONAL CHANGE AND DEVELOPMENT

Course Outcomes:

CO1: Understand the significance of innovation and creativity in business

CO2: Understand the need for Organizational change and development in the modern Organisations.

CO3: Adapt to changing corporate circumstances and become efficient managers in the modern era.

CO4: Scale up their path towards career development by means of developing their individual potentialities.

DISCIPLINE SPECIFIC ELECTIVE COURSE III

MARKETING

CORE COURSE XII (DSEC): CONSUMER BEHAVIOUR

Course Outcomes:

CO 1: Understand the relevance of consumer behavior theories and concepts to marketing

decisions.

CO2: Use appropriate techniques to apply market solutions.

CO3: Acquire social and ethical implications of marketing actions on consumer behaviour

CO4: Formulate marketing strategies that influence consumer behaviour

CORE COURSE XIII (DSEC) : ADVERTISING AND BRAND MANAGEMENT

Course Outcomes:

CO 1: Understand the fundamental theories, concepts, and frameworks in advertising and brand management

CO2: Apply advertising and branding techniques in different situations

CO3: Understanding ethical challenges related to responsible management advertising and brand strategy

CO 4 : Acquires skill in media planning and scheduling

CORE COURSE XVII (DSEC) : LOGISTICS MANAGEMENT

Course Outcomes:

CO1:Understand the structure of supply chains and the different ways through which supply

chains can become competitive in the market .

CO2:Explain how to use the levers of the logistics strategy to redefine the points necessary to make this harmonization.

CO3: Analyse the importance of the term “value creation” and to propose actions in the field of management of logistics costs towards the creation of value.

CO4: Distinguish the forces shaping international logistics in a global market.

CO5: Assess accurately the risks occurred due to loss of focus on the satisfaction of end customer demand

CORE COURSE XVIII (DSEC) : RETAIL MANAGEMENT

Course Outcomes:

CO 1: Understand basic marketing theories, principles, practices and terminology related to each functional area of business.

CO2: Identify the ways that retailers use marketing tools and techniques to interact with their customers and perform basic functions appropriate to each functional area of business.

CO3:Analyse the contribution of retailers to the product value chain; consumer motivations, shopping behaviours, and decision processes for evaluating retail Offering and purchasing merchandise and services; corporate objectives, competitor analysis, and competitive strategy.

CO4: Understand how retailers differentiate their offering as an element in their corporate strategy and factors affecting strategic decisions involving investments in locations, supply chain and Information systems, and customer retention program.

GENERIC ELECTIVE COURSES

GENERIC ELECTIVE COURSE I: CUSTOMER RELATIONSHIP MANAGEMENT

Course Outcomes:

Co1: Understand the concept of CRM in digital era with modern changes in the recent world.

Co2: Identify the dimensions to evaluate customers' satisfaction.

Co3: Apply various strategies to improve the customer loyalty and maintaining the long-term customer relationships.

Co4: Analyse the recent initiatives taken by MNCs to improve customers' satisfaction coping up to their expectations.

GENERIC ELECTIVE COURSE II: SERVICE MARKETING

Course Outcomes:

CO1: Appreciate the challenges facing the services marketing in traditional commercial marketing, e-marketing and non - commercial environments.

CO2: Identify the differences between marketing physical products and intangible services, including dealing with the extended services marketing mix, and the four unique traits of services marketing.

CO3: Recognise the challenges faced in services delivery as outlined in the services gap model.

CO4: Forecast the new innovations in the services industry and become the recipients of better services quality ensured by best corporates.

GENERIC ELECTIVE COURSE III: E-COMMERCE

Course Outcomes:

CO1: Familiarize the basic concepts and methods of e-commerce

CO2: Understand how e-commerce affect today's business world

CO3: Identify the precautionary measures to be followed while entering in online transactions.

CO4: Analyze factors influencing the success of e-commerce.

GENERIC ELECTIVE COURSE IV: EVENT MANAGEMENT

Course Outcomes:

CO1: Understand the concept and significance of event management.

CO2: Familiarize the techniques to improve event finance, sponsorship and cost control.

CO3: Practice preparing time limits for event.

CO4: Develops skill for conducting an event

GENERIC ELECTIVE COURSE V: DISASTER MANAGEMENT

Course Outcomes:

CO1: Understand the factors contributing to disaster

CO2: Acquire knowledge about the various precautionary measures to reduce the disasters

CO3: Understand the IT techniques in disaster management

CO4 : Identify the role of NGO and Govt. in disaster management

B.SC. MATHEMATICS PROGRAMME

PROGRAMME SPECIFIC OUTCOMES:

PSO 1: Understand the basic concepts and tools of Mathematical logic, Set theory, Number theory, Geometry, Calculus, Algebra, Abstract structures, Linear Algebra, Analysis, Laplace transforms, Fourier series, Graph theory, and Optimization and methods of proofs.

PSO 2: Model real world problems into Mathematical problems and find solutions and understand the application of Mathematics in other Sciences and Engineering.

COURSE OUTCOMES:

CORE COURSE 1: SET THEORY, DIFFERENTIAL CALCULUS

CO1 Understand Relations and Functions.

CO2 Understand limit of a function, limit laws, continuity, Inverse functions and their derivatives.

CO3 Understand successive differentiation and Leibnitz theorem.

CO4 Understand functions of several variables, limit and continuity, partial derivatives, chain rule, homogenous functions and Euler's theorem on homogenous functions.

CO5 Understand bisection method, Regula-falsi method and Newton Raphson method to solve algebraic and transcendental equations.

CORE COURSE 2: INTEGRAL CALCULUS AND LOGIC

CO1 Understand Hyperbolic functions

CO2 Understand Reduction formulae for trigonometric functions and evaluation of definite integrals.

CO3 Understand Polar coordinates

CO4 Understand Double integrals in Cartesian and polar form.

CO5 Understand triple integrals in rectangular, cylindrical and spherical co-ordinates

CO6 Understand Substitution in multiple integrals

CO7 Understand Numerical integration: Trapezoidal rule, Simpson's 1/3rd rule

CO8 Understand Logic and methods of proofs

CO9 Understand Propositional functions, truth set and Negation of quantified statements

CORE COURSE 3: ANALYTIC GEOMETRY AND APPLICATIONS OF DERIVATIVES

CO1 Understand cartesian equation of conics, eccentricity, polar equations for a conic, lines, circles

CO2 Understand Tangents, Normals and Asymptotes

CO3 Understand Curvature, Radius of curvature, Centre of Curvature, Circle of curvature and Evolutes of Cartesian and polar curves,

CO 4 Understand Rolle's Theorem, Lagrange's Mean Value Theorem, Cauchy's Mean Value Theorem and Taylor's Theorem

CO5 Understand extreme values of functions, monotonic functions, first derivative test, concavity and curve sketching

CO6 Understand Indeterminate forms

CORE COURSE 4: NUMBER THEORY AND APPLICATIONS OF INTEGRALS

COURSE OUTCOMES

CO1 Understand Division algorithm, Greatest common Divisor, Euclidean Algorithm, Diophantine equation $ax+by=c$.

CO2 Understand Primes and their distribution, fundamental theorem of arithmetic, the sieve of Eratosthenes

CO3 Understand Basic properties of congruence

CO4 Understand Picard's little theorem, Wilson's theorem and Euler's theorem

CO5 Understand Substitution and the area between curves, Arc length, Areas and length in polar co-ordinates

CO6 Understand Volumes using cross sections, volumes using cylindrical shells and areas of surfaces of revolution

CORE COURSE 5: SET THEORY, THEORY OF EQUATIONS AND COMPLEX NUMBERS

CO1 Understand finite and infinite sets, Countable and Uncountable sets, Cantor's theorem.

CO2 Understand Roots of equations, Relations connecting the roots and

coefficients of an equation, Transformation of equations, The cubic equation, Character and position of roots of an equation.

CO3 Understand Descartes's rule of signs, De Gua's Rule, Limits to the roots of an equation, Rational roots of equations, Newton's method of divisors, Symmetric functions of roots of an equation, Symmetric functions involving only the difference of the roots of $f(x)=0$, Equations whose roots are symmetric functions of α, β, γ .

CO4 Understand Reciprocal equations.

CO5 Understand Cubic equation, Equation whose roots are the squares of the difference of the roots, Character of the Roots, Cardan's Solution

CO6 Understand Roots of complex numbers, General form of De Moivre's theorem, the n th roots of unity, the n th roots of -1 , Factors of x^n-1 and x^n+1 , the imaginary cube roots of unity.

CO7 Understand polar form of complex numbers, powers and roots.

CORE COURSE 6: REAL ANALYSIS I

CO1 Understand Algebraic Properties, Order Properties and Absolute values of \mathbb{R} . Understand the Completeness Property of \mathbb{R} and its applications to derive Archimedean Property and Density theorem.

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.

CO6 Understand Comparison test, Root test, Ratio test, Integral test and Raabe's test for Absolute convergence.

CO7 Understand Alternating series test, Dirichlet's test and Abel's test for Non Absolute convergence.

CO8 Understand Continuous Functions, composition of continuous functions and continuous functions on intervals.

CORE COURSE 7: ABSTRACT ALGEBRA

CO1 Understand definition and elementary properties of Groups, Subgroups and Cyclic groups

CO2 Understand Groups of Permutations, orbits, Alternating groups and theorem of Lagrange

CO3 Understand group homomorphisms , factor Groups

CO4 Understand Fundamental Homomorphism Theorems

CO5 Understand definition and properties of rings and fields

CO6 Understand Ring homomorphisms and isomorphisms

CO7 Understand zero divisors , integral domains , characteristic of a ring and their properties

CORE COURSE 8: DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS

CO1 Understand Separable ODEs, Exact ODEs, Linear ODEs, Bernoulli equation and methods to solve these ODEs

CO2 Understand the theorem of Existence and Uniqueness of solutions of first and second order ODEs

CO3 Understand Homogeneous Linear ODEs of Second Order and solve homogeneous linear ODEs of second order with constant coefficients and Euler-Cauchy equation

CO4 Understand Nonhomogeneous ODEs and solve by variation of parameters

CO5 Understand Laplace Transform and inverse Laplace Transformation

CO6 Understand The first and The second shifting theorems and their applications

CO7 Understand the methods to find Laplace transforms of derivatives and integrals of functions

CO8 Understand the method of differentiating and integrating Laplace transform

CO9 Solve ordinary differential equations and integral equations using Laplace transform

CORE COURSE 9: VECTOR CALCULUS

CO1 Understand lines and planes in space

CO2 Understand curves in space, their tangents, normal, curvature, tangential and normal curvature of acceleration

CO3 Understand Directional derivatives and gradient vectors, tangent planes and differentials. Solve extreme value problems using Lagrange multipliers

CO4 Understand Partial derivatives with constrained variables and Taylor's formula for two variables

CO5 Understand Line integrals. Solve for work, circulation and flux using line integrals

CO6 Understand path independence conservative fields and potential functions

CO7 Understand Green's theorem and solve problems using Green's theorem

CO8 Understand Surface area and surface integrals

CO9 Understand Stoke's theorem and solve problems using Stoke's theorem

CO10 Understand Divergence theorem and solve problems using Divergence theorem

CORE COURSE 10: REAL ANALYSIS II

CO1 Understand Uniform Continuity, Monotone and Inverse Functions

CO2 Understand Riemann Integral and Riemann-integrable Functions

CO3 Understand Fundamental Theorem of Calculus

CO4 Understand Improper Integrals

CO5 Understand Beta and Gamma Functions and their properties.

CO6 Understand Transformations of Gamma Function and Duplication formula

CO7 Understand Pointwise and Uniform Convergence of sequence of functions and Interchange of Limits

CO8 Understand Series of Functions

CO9 Understand the concept of Metric Spaces

CORE COURSE 11: 6B11 MAT: COMPLEX ANALYSIS

CO1 Understand Analytic Function, Cauchy–Riemann Equations. Laplace’s Equation.

CO2 Understand Exponential Function, Trigonometric Functions, Hyperbolic Functions, Logarithmic functions and General Power of complex numbers

CO3 Understand line integral in the complex plane, Cauchy’s integral theorem, Cauchy’s integral formula and derivatives of analytic functions

CO4 Understand convergence of Sequences and Series of complex functions

CO5 Understand power series, functions given by power series, Taylor series, Maclaurin’s Series and Laurent Series

CO6 Understand singularities and zeros of complex functions

CO7 Understand residue integration method and integrate real integrals

CORE COURSE 12: NUMERICAL METHODS, FOURIER SERIES AND PARTIAL DIFFERENTIAL EQUATIONS

CO1 Understand Interpolation techniques: Interpolation with unevenly spaced points, Lagrange interpolation, Newton's divided differences interpolation, Finite difference operators and finite differences, Newton's interpolation formulae and Central difference interpolation.

CO2 Understand Numerical differentiation using difference formulae

CO3 Understand Picard's method, Solution by Taylor series method, Euler method and Runge- Kutta methods.

CO4 Understand Fourier Series: Arbitrary period, Even and Odd Functions, Half-Range Expansions and Fourier Integrals.

CO5 Understand Partial Differential equations, Solution by Separating Variables.

CO6 Understand the use of Fourier Series in solving PDE: D’Alembert’s Solution of the Wave Equation. Characteristics and solving Heat Equation by Fourier Series.

CO7 Understand Laplacian in Polar Coordinates

CORE COURSE 13: LINEAR ALGEBRA

CO1 Understand the concept of Vector spaces, subspaces, linear combinations and system of equations.

CO2 Understand the concept of Linear Dependence and Linear Independence, Bases and Dimension, Maximal Linearly Independent Subsets and solves problems.

CO3 Understand the concept of Linear Transformations, Null Spaces, and Ranges, The Matrix Representation of a Linear Transformation.

CO4 Understand Rank of a matrix, Elementary transformations of a matrix, Invariance of rank 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 non homogeneous equations.

CO6 Understand Eigen values, Eigen vectors, Properties of Eigen values, Cayley-Hamilton theorem.

DISCIPLINE SPECIFIC ELECTIVE COURSE 2: 6B14B MAT: OPERATIONS RESEARCH

CO1 Understand convex sets, convex functions, their properties, local and global extrema and quadratic forms

CO2 Understand LPP, formulate and solve using graphical method

CO3 Understand General LPP, canonical and standard forms of LPP

CO4 Understand simplex method and solve LPP

CO5 Understand basic solution, degenerate solution, basic feasible solution, optimum basic feasible solution, fundamental properties of solution and simplex method

CO6 Understand primal-dual pair, formulation of dual and duality theorems

CO7 Understand LP formulation of transportation problem and its solution

CO8 Understand Mathematical formulation of Assignment problem and Hungarian Assignment method

CO9 Understand problem of sequencing, Processing 'n' jobs through '2' machines, Processing 'n' jobs through 'k' machines

CO10 Understand basic terms in Game theory, The Maximin-Minimax Principle, Solution of game with saddle point, Solution of 2x2 game without saddle point, Graphic solution of 2xn and mx2 games and Arithmetic method for nxn Games.

COMPLEMENTARY ELECTIVE COURSE I: INTRODUCTION TO COMPUTERS AND PROGRAMMING

CO1: Familiarize with the hardware components of a digital computer

CO2: Understand the basic idea of how data is represented in computers

CO3: Familiarize with types of software

CO4: Ability to design algorithmic solutions to problems

COMPLEMENTARY ELECTIVE COURSE II: PROGRAMMING IN C

CO1: Understand the building blocks of C programming language

CO2: Familiarize with program control structures in C

CO3: Learn procedural programming using functions

CO4: Understand user defined data types

COMPLEMENTARY ELECTIVE COURSE III: WEB TECHNOLOGY WITH DATABASE MANAGEMENT SYSTEM

CO1: Develop skills to design a web page using HTML

CO2: Understand HTML Forms and CSS Styling

CO3: Develop skills to develop database and retrieve data using SQL

CO4: Learn basics of server-side programming with PHP

COMPLEMENTARY ELECTIVE COURSE IV: COMPUTATION USING PYTHON

CO1: Learn Python for expressing computation

CO2: Familiarize with functions and modules in python

CO3: Understand object-oriented programming concepts

CO4: Learn the techniques for data visualization in python

COMPLEMENTARY ELECTIVE COURSE V: LAB 1 – PROGRAMMING IN C, WEB PROGRAMMING AND PYTHON PROGRAMMING

CO1: Achieve skills to use C language for problem solving

CO2: Understand SQL and basic web programming

CO3: Achieve skills to use Python for problem solving

COMPLEMENTARY ELECTIVE COURSE I: BASIC STATISTICS

CO1: understand the different types of data.

CO2: compute various measures of central tendency, measures of variation.

CO3: analyse the relationship between two variables.

CO4: acquire knowledge in time series data and compute various index numbers.

COMPLEMENTARY ELECTIVE COURSE II: 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.

COMPLEMENTARY ELECTIVE COURSE III: 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.

COMPLEMENTARY ELECTIVE COURSE IV: STATISTICAL INFERENCE

CO 1: understand the uses of Chebychev'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