B.B.A. (International Business)		
First Semester		
PRINCIPLES OF MANAGEMENT	1	Examine and explain the management evolution and how it will affect future managers.
	2	Estimate the conceptual framework of planning and decision-making in day to day life.
	3	Explain the various managerial functions to achieve the goals and objectives of the organization
	4	Analyze the theories of motivation, leadership and communication in a variety of circumstances and management practices in organizations
	5	Identify and explain the importance of the management process and identify some of the key skills required for the contemporary management practice
BASICS OF BUSINESS & BUSINESS ENVIRONMENT	1	Develop an understanding on the gamut of business activities
	2	Explain the intricacies in starting a business and knowing the suited business form
	3	Design a business model in order to analyze its sustainability
	4	Comprehend the environmental factors that are conducive /detrimental to the respective businesses
	5	Have a simple and basic comprehension of the international scenario with regard to borderless business world
MATHEMATICS AND STATISTICS FOR MANAGEMENT	1	Solve systems of linear equations by use of the matrix
	2	Be able to find the nature (maximum and minimum) of a turning point
	3	Outline the meaning of marginal revenue and marginal cost and their relevance for firm's profitability.
	4	Understand and compute the sampling distributions, sampling distributions of means and variances (S2) and the t- and F-distributions
	5	Summarize a regression analysis, and compute and interpret the coefficientof correlation.
Second Semester		
ORGANISATIONAL BEHAVIOUR	1	Analyze the individual and group behavior; and understand the implications of organizational behaviour on the process of management
	2	Identify various theories of motivation from the past and to evaluate motivational strategies used in a variety of organizational settings
	3	Enhance productivity of the organization by ensuring required job satisfaction and employee attitude
	4	Understand the supervisory effects on performance and to train supervisors by understanding different supervision styles.
	5	Evaluate the appropriateness of various leadership styles and counseling methods
ECONOMICS FOR EXECUTIVES	1	Apply the objectives of business firms, demand analysis and elasticity of demand in daily life and in their career
	2	Identify the effective applications of factors of production and BEP Analysis
	3	Understand the determination of the Price, Market structure and competition.
	4	Analyze various theories of wages, Interest and profit in Business field.
	5	Evaluate the performance of the Government sector in India.
QUANTITATIVE TECHNIQUES FOR MANAGEMENT	1	Define and formulate linear programming problems and evaluate their applications
	2	To understand concepts and terminology of Linear Programming from formulation of mathematical models to their optimization using Simplex Method
	3	To comprehend the concept of a Transportation Model and develop the initial solution and optimality checking of the solution
	4	To apply the strategies of game theory and to make better decisions while solving business problems
	5	Use critical path analysis and programming evaluation and review techniques for timely project scheduling and completion

FINANCIAL ACCOUNTING	1	Recall the accounting concepts and understand the rules of double entry system, journalizing and posting to ledger in the business transactions.
	2	Interpret the trial balance; identify the errors and to reconcile the bank statement by cash book.
	3	Summaries the manufacturing, trading, profit & loss account and balance sheet with the support of financial and accounting transactions.
	4	Illustrate the accounts for non-trading institutions through income & expenditure, receipts & payments along with the methods of depreciation.
	5	Classify the sections of accounting statements from incomplete data

PRODUCTION AND MATERIALS MANAGEMENT	1	Enumerate the production processes and production planning and control.
	2	Describe the importance of materials management function in an organization, and how it can help in integrating various plans and reduce the material related costs
	3	Describe the material management, domestic and import purchase procedures and vendor rating and development.
	4	Outline management issues in receiving, stores, traffic and transportation, warehousing and physical distribution
	5	Discuss about the quality control, Total Quality Management, Bench marking and ISO

MARKETING MANAGEMENT	1	Recognize the significance of marketing and its role in economic development
	2	Recognize how market strategy works, market segmentation and product mix have impact on buying behaviour
	3	To apply marketing concepts, pricing for the development of marketing function.
	4	Analyze and perform the functions of marketing in organisation
	5	Demonstrate the critical thinking skills and analyze e-marketing in the Indian context.

BUSINESS LAW	1	Develop an understanding on business law in the global context
	2	Knowing the relevant legal terms in business
	3	Construct the relationship of ethics and law in business
	4	Applying basic principles of law to business and business transactions
	5	Implementing current law, rules, and regulations related to settling business disputes

PC software (MS OFFICE) – PRACTICAL	1	Use Microsoft Office programs to create personal, academic and business documents following current professional and/or industry standards.
	2	Create scientific and technical documents incorporating equations, images, tables, and bibliographies
	3	Develop technical and scientific presentations which use charts and visual aids to share data.
	4	Build spreadsheets to perform calculations, display data, conduct analysis, and explore
	5	Design and construct databases to store, extract, and analyze scientific and real-world data

HUMAN RESOURCE MANAGEMENT	1	Analyze the process of Job analysis and its importance as a foundation of human resource management practice.
	2	Understand the Human resource planning
	3	Apply the policies and practice of the primary areas of human resource management, including staffing, training and compensation.
	4	Understand the importance of career planning and succession planning

	5	Understand the importance of career planning and succession planning

	1	Use business finance terms and concepts while communicating.
	2	Explain the financial concepts used in making financial management decision.
FINANCIAL MANAGEMENT	3	Use effective methods to promote respect and relationship for financial deals.
	4	Utilize information to maximize and manage finance.
	5	Demonstrate a basic understanding of Budgeting.

	1	Develop an understanding on geography of resources in the global context
	2	Knowing the world geography
WORLD RESOURCES	3	Construct the skills on Aircraft and Electronic Industries
	4	Applying knowledge on effective utilization of various resources
	5	Implementing current knowledge to interlink between resources and trade.

	1	Understand basic Accounting concepts and principles
	2	Be able to generate Accounting and Inventory Masters, Vouchers and Basic Reports in Tally
FINANCIAL ACCOUNTING PACKAGE TALLY ERP 9 - PRACTICAL	3	Understand Advanced Accounting and Inventory in Tally. ERP 9
	4	Have an understanding of Advanced Accounting and Inventory in Tally.ERP 9
	5	Understand basic concepts and practical application of VAT, CST, TDS and Service Tax

	1	Elucidate an understanding of theoretical and technical knowledge of taxation law principles as they apply through legislation, for both individuals and business entities.
	2	Analyze, generate and transmit solutions to complex problems in relation to taxation matters.
TAXATION LAW AND PRACTICE		
	4	To efficiently handle indirect taxes and GST.
	5	To be a potential person on the procedural compliance of tax

Fifth Semester		
	1	Understanding the concept of cost accounting, Recognize the merits and demerits of cost and management accounting along with the elements of cost concepts.
	2	Describe the cost sheets for the purpose of stores control through economic order quantity, pricing and material issues.
COST AND MANAGEMENT ACCOUNTING	3	Measure the financial statements through comparative and common size by using various financial ratios.
	4	Simplify the fund flow and cash flow statements by calculating funds and cash from operations.
	5	Produce various budgets and apply standard costing for material variances; marginal costing for cost volume profit.

	1	Understand fundamental concepts of research, types and research process.
	2	Summarize the sampling design and scaling techniques.
RESEARCH METHODOLOGY FOR MANAGEMENT	3	Construct a method for data collection and able to edit, code ,classify and tabulate the collected data.
	4	Analyze the collected data to prove or disprove the hypothesis.
	5	Interpret the data and prepare a research report.

	1	Recognize the significance of marketing and its role in global economic development
INTERNATIONAL MARKETING MANAGEMENT	2	Recognize how market strategy works, market segmentation and product mix have impact on buying behavior of international consumers

Course	No.	Outcome
INTERNATIONAL MARKETING MANAGEMENT	3	To apply marketing concepts, pricing for the development of marketing function
	4	Analyze and perform the functions of marketing in organization at international
	5	Demonstrate the critical thinking skills and analyze e-marketing in the International context

Course	No.	Outcome
INTERNATIONAL STRATEGIC MANAGEMENT	1	Learn the fundamentals of International and National Strategic Management.
	2	Examine the Corporate Strategies, Analyze Industry and Competition
	3	To analyze evaluate the process of Corporate Portfolio.
	4	Integrate and apply knowledge on Formulation and Implementation of Strategy
	5	Evaluate challenges faced in Implementing Strategies

Sixth Semester		
ENTREPRENEURSHIP AND PROJECT MANAGEMENT	1	Define who is an Entrepreneur and what his or her characteristic features are, what skills made them successful and what qualities are required to become an Entrepreneur.
	2	Foster the students in the areas of entrepreneurial growth and equip with different entrepreneurial development programmes.
	3	Project management is a powerful discipline in the core areas of project life cycle and to know about the roles and responsibilities of a project manager.
	4	Discriminate the benefits of delivering the project identification and selecting the successful project with the various guidelines issued by the authorities.
	5	Classify the various sources of business finance and identify the different institutions that supporting entrepreneurs.

Course	No.	Outcome
FOREIGN EXCHANGE MANAGEMENT	1	To impart fundamentals of foreign exchange markets
	2	To understand the foreign exchange transactions
	3	To acquaint the students with the trade practices, procedures and documentation of foreign exchange
	4	To various aspects relating to risks and techniques in Foreign exchange practices
	5	To analyze the foreign trade performance by examining the determinants of pre and post shipments

FOREIGN TRADE PROCEDURE & DOCUMENTATION	1	To understand export licensing procedures and support from the Indian Government for promotion of Exports
	2	To evaluate and integrate export promotion schemes
	3	To critically evaluate import licensing procedures and documentation
	4	To understand and apply customs formalities in clearance of goods
	5	Understand the concepts in trade documentation in international business with respect to foreign trade

Elective Courses		
INTELLECTUAL PROPERTY RIGHTS	1	The students once they complete their academic projects, shall get an adequate knowledge on patent and copyright for their innovative research works
	2	During their research career, information in patent documents provide useful insight on novelty of their idea from state-of-the art search. This provide further way for developing their idea or innovations
	3	Pave the way for the students to catch up Intellectual Property(IP) as an career option R&D IP Counsel, Government Jobs – Patent Examiner, Private Jobs, Patent agent and Trademark agent, and Entrepreneur
	4	Develop knowledge on trademarks and registration aspects
	5	Have a simple and basic comprehension of the Indian scenario with regard to IPR act

	1	Understand the Basics of Relationship Marketing
	2	Understand CRM

CUSTOMER RELATIONSHIP MANAGEMENT	3	Understand Sales Force Automatio
	4	Understand Value chain
	5	Understand Marketing Database

INTRODUCTION TO INDUSTRY 4.0	1	Understand the drivers and enablers of Industry 4.0
	2	Appreciate the smartness in Smart Factories, Smart cities, smart products and smart services
	3	Able to outline the various systems used in a manufacturing plant and their role in an Industry 4.0 world
	4	Appreciate the power of Cloud Computing in a networked economy
	5	Understand the opportunities, challenges brought about by Industry 4.0 and how organisations and individuals should prepare to reap the benefits

INDUSTRIAL RELATIONS AND LABOUR LAW	1	Develop an understanding on industrial relation determinates of IR and IR scenario in India.
	2	Develop skill in negotiation with unions and conflict resolution.
	3	Handle grievances.
	4	Develop skill in collective bargaining.
	5	Know the application of Industrial dispute Act 1947and The Employee's State Insurance Act, 1948.

CONSUMER BEHAVIOUR	1	Identify the major influences in consumer behaviour
	2	Distinguish between different consumer behaviour influences and their relationships
	3	Establish the relevance of consumer behaviour theories and concepts to marketing decisions
	4	Implement appropriate combinations of theories and concepts
	5	Recognise social and ethical implications of marketing actions on consumer behaviour

BIG DATA ANALYTICS	1	Identify and distinguish big data analytics applications
	2	Describe big data analytics tools
	3	Explain big data analytics techniques
	4	Present cases involving big data analytics in solving practical problems
	5	Conduct big data analytics using system tools and Suggest appropriate solutions to big data analytics problems

E-COMMERCE	1	To Understand e-commerce models -its benefits and limitations
	2	To use of market research tools in analyzing customer buying behavior
	3	To analyse the web advertising modes
	4	To understand the application of B2B e-commerce model
	5	To critically evaluate public policy on privacy and security

FINANCIAL SERVICES	1	Identify and distinguish big data analytics applications
	2	Describe big data analytics tools
	3	Explain big data analytics techniques
	4	Present cases involving big data analytics in solving practical problems
	5	Conduct big data analytics using system tools and Suggest appropriate solutions to big data analytics problems

GLOBAL BUSINESS MANAGEMENT	1	Understand the fundamental concepts pattern of international trade.
	2	Developing knowledge on Indian institutional assistance for export promotion.
	3	Knowing export procedures and incentives.

| | 4 | Develop skill in obtaining export finance. |
| | 5 | Develop skill in obtaining export finance. |

	1	Define the concept and pros &cons of franchisee option
	2	Identify legal formalities & process of franchisee
ARTIFICIAL INTELLIGENCE	3	Develop relationship between Franchisor &franchisee; Resolve the conflict between franchisor & franchisee
	4	Develop Franchisee marketing plan
	5	Analyze the way to enter into International Market entry strategies

	1	Remember the core contents of any communication
	2	Understand the nuances of communication
COMMUNICATION SKILLS - I	3	Able to understand and speak well in any situation
	4	Demonstrate a good command in responding to any queries
	5	Achieve the desired result of a good communication

	1	Remember the core contents of any communication
	2	Understand the importance of good written communication
COMMUNICATION SKILLS II	3	Able to draft and write any type of documents
	4	Demonstrate a good command in responding to any queries
	5	Achieve the desired result of a good communication

	1	Remember the industry expectations
	2	Understand the importance of etiquette in organizational culture
CAMPUS TO CORPORATE	3	Able to develop a confidence level and facing interviews
	4	Demonstrate a good command in responding to any queries
	5	Achieve the desired result thro proper evaluation of competencies and be creative

	1	Remember the various organizational entry level skill requirements
	2	Understand the need for different skill requirement at different occasions
SOFT SKILLS FOR BUSINESS	3	Able to appropriately respond to the situation during recruitment and selection
	4	Demonstrate a good command in work environment
	5	Achieve the desired result of a good employability

B. Com. Finance

First Semester

	1	Understand the various methods of depreciation accounting in the books of accounts
	2	Apply the various techniques of Preparation of Final Accounts of a Sole Trading Concern
Financial Accounting I	3	Summarizing Bank Reconciliation Statement
	4	Know the Depreciation accounting and methods
	5	Understanding books of accounts relating to Single Entry system

| | 1 | Recalling various terms and concepts relating to marketing |

	2	Understanding various forms and types of marketing
Marketing	3	Evaluate the dimensions of consumer behavior
	4	Differentiating specific components of marketing mix
	5	Explaining the emerging trends in marketing and the regulatory mechanisms

Second Semester

	1	Implementing various methods of branch accounting in the books of accounts
	2	Applying the various techniques of departmental accounts
Financial Accounting II	3	Summarizing hire purchasing and installment accounts
	4	Understanding about the Admission of a partner - Retirement of a partner.
	5	Understanding the books of accounts relating to Dissolution of a partnership

	1	To participate in an online learning environment successfully by developing the implication-based understanding of Paraphrasing, deciphering instructions, interpreting guidelines, discussion boards & Referencing Styles
	2	To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar.
Business Communication	3	Understanding various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.
	4	To draft effective business correspondence with brevity and clarity.
	5	Apply their Critical thinking by designing and developing clean and lucid writing skills.

Third Semester

	1	To understand the basic conceptual knowledge about the company and procedure for Issue, Forfeiture and Reissue of shares,
	2	To understand the Redemption of preference shares and issue and redemption of debentures and Profit prior to incorporation
Corporate Accounting	3	Preparation of final accounts of companies and calculation of managerial remuneration
	4	To Solve various methods of valuation of goodwill and shares.
	5	To Understand the concept of alteration of share capital , internal reconstruction, capital reduction and procedure for capital reduction

	1	Recalling various alternatives of investment
	2	Comparing the features of various investment markets
Investment Management	3	Analyzing investments using fundamental analysis
	4	Applying technical analysis for evaluating investments
	5	Creating an optimum portfolio for investment

	1	To know about the essential elements of valid contract and its types
	2	To understand the elements Consideration and Capacity to Contract
COMMERCIAL LAW	3	To understand the Discharge and remedies for breach of Contract
	4	To gain knowledge about Contract of Indemnity and Guarantee
	5	To understand the Law of Contract of Sale

	1	Understanding the basics of working in MS-office using various tools
	2	Generating personal bio data using MS word
COMPUTER APPLICATIONS PRACTICAL–I	3	Analyzing business transactions using excel

	4	Apply excel tricks for the data analysis
	5	Applying presentation skills in MS PowerPoint

		Fourth Semester
HIGHER CORPORATE ACCOUNITNG	1	To know the procedure and calculation regarding mergers
	2	To understand the internal and external reconstruction of company
	3	To prepare various schedules for Banking companies.
	4	To understand the Preparation of Insurance Company accounts
	5	To Prepare the Consolidation Balance Sheet of Holding Company

Business Management	1	To know the over view of basic principles and organizational activity in management
	2	To understand the planning process and decision making using modern techniques
	3	To understand in detail about the Organizing process
	4	To understand the staffing and motivational techniques in management
	5	To equip knowledge in Control Process and Communication

COMPUTER APPLICATIONS PRACTICAL II	1	Understanding the basics of working in MS-office using various tools
	2	Generating personal bio data using MS access to Create a Student database
	3	Analyzing business transactions using computerized packages
	4	Analyzing Inventory Information – Stock Summary
	5	Preparing the final accounts with the help of tally

Company Law	1	Understand the formation and kinds of companies
	2	Acquire knowledge on basic documents in a company and various methods of rising of capital.
	3	Understand the provisions of Companies Act relating to meetings, resolutions and Company Management.
	4	Understand the Issue of share, allotment and E filing of a Company
	5	Understand about the methods of borrowings and registration

		Fifth Semester
Cost Accounting	1	Understand the different concepts and classification of costs and create cost sheet for the firms.
	2	Gain the knowledge on different types of material controls
	3	Know the system of labour wage payment, labour turnover and classification of overhead
	4	Gain the knowledge on different types of process costing.
	5	Understand Operating Costing, Contract costing, and Reconciliation of Cost and Financial accounts

INCOME TAX	1	Enumerate the basic principles of income tax
	2	Know the various heads of Income
	3	Understand the Income from other sources
	4	Examines the Deductions from Gross total Income
	5	Computation of tax liability of an individua

Financial Management	1	Define and identify the concepts of Financial management
	2	Interpret financial statements for strategic decision making
	3	Understand the working capital management

	4	Understand the capital structure of a company
	5	Apply the types of Captial Budgeting

	1	Understand and explain the conceptual framework of banking
	2	Classify and Demonstrate the types of deposit, cheques, loans and advances
Banking Theory law & Practices	3	To know the types of endorsements and kinds of crossing
	4	To gain knowledge on Statutory protection of paying banker and collecting banker
	5	To understand the lending policies of commercial banks

	1	Understand the basic auditing principles, concepts, planning an audit and due diligence
	2	Illustrate the steps required to perform Internal control and Internal check, Vouching and Verification and Valuation of Assets and Liabilities
Principles of Auditing	3	Gain expert knowledge on current auditing practices and procedures and apply them in auditing engagements as well as detection of frauds
	4	Understand the Qualification, Rights, Duties and Liabilities of an Auditor
	5	Gain knowledge on Audit of computerized accounts

	1	Understand the nature and scope of Management accounting
	2	Understand different types of Ratios and its applicability in financial analysis.
MANAGEMENT ACCOUNTING	3	Familiarize the students with the concept of fund flow and cash flow statements and its preparations and working capital requirements
	4	Application of Marginal costing technique in solving Management problems
	5	To Know the methods of preparing Different types of Budgets.

	1	Concept of Business Environment and its impact of business and strategic decisions
	2	To understand the Political and Legal Environment
Business Environment	3	To understand the Social – cultural Environment
	4	To gain knowledge on Economic Environment
	5	Impact of technology on globalization and Technology Management

	1	Define and identify the concepts of working capital management
	2	Understand the Money market instruments and Bank finance
WORKING CAPITAL MANAGEMENT	3	To gain knowledge on Receivables, Cash and Inventory Management
	4	Know the Instruments of international money market
	5	Apply the concepts to Working Capital Control and Banking policy.

B.COM PA

	1	Recall Accounting Concepts and Conventions and use Accounting rules to record business transactions in Journal, Ledger and prepare Trial Balance.
Principles of Accountancy	2	Understand the preparation Subsidiary Journals including Three Column Cash book and prepare a Bank Reconciliation Statement.
	3	Apply the accounting practices for Bill of exchange and Account current

	4	Analyse the accounting treatment in preparation of consignment and joint venture accounts
	5	Understand the concepts in preparation of bank reconciliation statement and accounting for professionals

	1	Understand the hardware and software Information Systems.
	2	Recall the different types of computer system and networking
Introduction to Information Technology	3	Gain knowledge about components of computers
	4	Describe the operating systems and mobile computers
	5	Understand the System analysis and design, management information system-decision support systems-expert system

	1	Recall various techniques of working in MS-WORD
	2	Prepare appropriate personal bio data
Computer Applications Practical-I (MS Office)	3	Analyze financial data using EXCEL tools
	4	Understanding various tools used in MS-EXCEL
	5	Creating presentations for seminars and lectures using animations

Second Semester		
	1	Remember provisions relating to the Indian contract act 1872
	2	Understand the essential elements of a valid contract
Mercantile Law	3	Analyse the conditions for performance of the contract and breach of contract
	4	Apply various provisions regarding the formation of contract of sale.
	5	Understand the general nature of partnership, registration and dissolution of firm

	1	Understand the basics of working in MS-ACCESS using various tools
	2	Prepare personal bio data using MS ACCESS tools
Computer Application Practical-I (MS Office)	3	Analyze business transactions using computerized packages
	4	Analyze inventory management using various techniques
	5	Apply internet for business purposes and communications

Third Semester		
	1	Understand the provisions about the development and the judicial setup of Labour Laws
	2	Apply cultural competency while exercising their legal skills.
Industrial Law	3	Analyze an advanced understanding of the underlying legal principles
	4	Understand the rules and provisions which regulate trade union work relationships
	5	Understand the industrial safety and welfare measure of workers

	1	Know about overview of business environment, business policy and strategic management
	2	Learn about strategic analyses and plan strategies relating to organizations
Strategic Management	3	Apply various techniques to formulate functional strategies
	4	Understand the process of evaluating the strategy and knowledge about criteria for evaluation
	5	Apply the principles guiding business process for reaching strategic edge.

	1	Recall various concepts of costing and costing methods

Cost Accounting	2	Understand the various levels of material control	
	3	Apply innovative methods of costing techniques	
	4	Evaluate the cost under process costing	
	5	Analyze the different costs of operations and control it	

Computer Applications Practical-II (Oracle)	1	Understand the basics of working in oracle
	2	Prepare personal bio data using oracle
	3	Analyze business transactions using oracle
	4	Analyze inventory management using oracle
	5	Create the table PAYROLL with oracle

Fourth Semester		
Advanced Accounting 1	1	Recall the accounting treatment relating to different methods of depreciation
	2	Understand the preparation of the Branch accounts, hire purchase and installment system.
	3	Apply the accounting procedure for preparing the single entry system
	4	Develop the conceptual skills to prepare and present the Partnership accounts
	5	Analyze the procedure for Dissolution of Partnership and Insolvency of Partners by applying the Garner Vs. Murray rule

MANAGEMENT ACCOUNTING	1	Familiarize with the basic concepts of Management accounting
	2	Analyze the financial statements using ratio analysis
	3	Determine the working capital of the business
	4	Justify decision making using marginal costing
	5	Formulate budget and exercising budgetary control

Executive Business Communication	1	To Recall the basics of business communication
	2	To demonstrate his/her ability to write error free while making an optimum use of correct Business Vocabulary & Grammar
	3	To distinguish among various levels of organizational communication and communication barriers while developing an understanding of Communication as a process in an organization.
	4	To draft effective business correspondence with brevity and clarity.
	5	To stimulate their Critical thinking by designing and developing clean and lucid writing skills

Computer Applications Practical-II (C++)	1	Recall various techniques of working using C++
	2	Prepare appropriate data with the help of coding
	3	Apply C++ coding for calculating accounting terms

Fifth Semester		
Advanced Accounting-II	1	Recall the basic concepts of preparing partnership accounts
	2	Understand the accounting treatment for admission and death of a partner.
	3	Apply the procedure for dissolution of firm and amalgamation
	4	Analyse the situation of conversion of firm into a company
	5	Understand the knowledge about accounting standards

	1	Enumerate the basic principles of auditing
	2	Remember the procedure for audit engagement and Documentation

Auditing and Assurance- I	3	Understand the audit procedure for obtaining the audit evidence and internal control
	4	Apply the techniques of test checking and review analytical procedures
	5	Analyze the analytical review procedures for audit payments

Principles of Auditing	1	Enumerate the basic principles of auditing
	2	Understand the procedural aspects relating to internal control and vouching
	3	Apply the practical knowledge for verification and valuation of assets and liabilities
	4	Apply the provisions relating to audit of Joint stock companies.
	5	Apply the procedural aspects for investigation of companies

Direct Tax-I	1	Recall the various terminologies related to income tax
	2	Understand the method of calculating and levying tax for income from salaries and house property
	3	Apply the various tax laws and available provisions for computation of income from business or profession and other sources
	4	Apply tax provisions applicable to calculate tax for income from capital gains
	5	Analyse the self-assessment of income and computation of tax liability

Direct Tax-II	1	Enumerate the tax provisions relating to assessment of HUF and firms
	2	Understand the legal provisions for assessing AOP and Companies
	3	Apply the tax procedures for assessing the cooperative society
	4	Apply the procedure for appeals, Provisions, Penalties and Prosecution
	5	Understand the provisions applicable to assess wealth tax

Sixth Semester		
Corporate Accounting	1	Identify the accounting procedures followed by companies for issue of shares and debentures
	2	Understand the accounting treatment relating to redemption of preference shares and debentures
	3	Describe the preparation of final accounts of company
	4	Apply the provisions relating to calculation of value of shares and goodwill
	5	Apply the legal accounting treatment for preparing liquidation account

Auditing and Assurance-II	1	Study the basic knowledge and general considerations related to audit of receipts, purchases, sales, impersonal ledgers and assets and liabilities
	2	Interpret and vouch of various documents and company audit procedures
	3	Apply the auditing procedures for the audit of accounting transactions
	4	Apply the provisions for audit of companies and preparing required reports
	5	Extrapolate the procedural aspects of auditing in various undertakings and preparation of audit reports

Indirect Taxes	1	Recall various concepts relating to Indirect tax regime in India
	2	Analyze the concept and applicability of GST in businesses
	3	Compare the GST regime with other indirect tax laws prior to it
	4	Describe the applicability of GST system in own business and other prototyes
	5	Examine the custom law and related duties and taxes

Elective Course		
	1	Remember the functions of finance and goals of business

Financial Management	2	Identify the appropriate source of finance suitable to the business
	3	Apply the concepts to enable financial planning and framing of optimum capital structure
	4	Analyse the working capital requirements and factors determining the requirements
	5	Understand the management of earnings available in the business

Entrepreneurial Development	1	Recall the importance and role of entrepreneurship as an economic activity
	2	Describe the various forms of setting up a startup and project management
	3	Understand the various institutional services to entrepreneur
	4	Understand the various institutional services to entrepreneur
	5	Understand the various subsidies and incentives available for entrepreneurs

Micro Finance	1	Recognize the present scenario of rural financial system in India
	2	Categorize various income generating activities in microfinance
	3	Apply the credit rating methodology for rating credit worthiness
	4	Analyze the various strategies for pricing of microfinance products
	5	Understand the transforming measures of NGO's

Business finance	1	Recall various concepts relating to finance
	2	Understand the various techniques of financial planning
	3	Analyze various sources and forms of finance
	4	Analyse various dimensions of capital structure and their components
	5	Analyse the various sources of finance available to meet the financial requirements

Brand Management	1	Recall the basic concepts of branding and related terms
	2	Compare brand image building and brand positioning strategies
	3	Analyze the impact of brand on customer behavior
	4	Evaluate the brand rejuvenation and brand monitoring process
	5	Apply various strategies for brand building and monitoring

Supply Chain Management	1	Recall the importance of supply chain management in the modern times
	2	Understand the various strategies in supply chain management
	3	Critiquing the concept of retailer supplier partnership
	4	Analyze the process of procurement, outsourcing and e-procurement
	5	Apply innovative ideas about smart pricing strategies and measuring customer values

Investment Management	1	Recalling various alternatives of investment
	2	Comparing the features of various investment markets
	3	Analyzing investments using fundamental analysis
	4	Applying technical analysis for evaluating investments
	5	Evaluate the optimum portfolio for investment

Financial Markets	1	Recall the basic concepts of financial market
	2	Analyze the working and components of corporate securities market
	3	Understand the functioning of stock exchanges in India

	4	Understand the role of banks and intermediaries in financial market
	5	Describe various trends and new methods of financing

M. A. English		
FIRST SEMESTER		
BRITISH LITERATURE – I FROM CHAUCER TO MILTON	1	Understand the language and literature of the period
	2	Analyse the social life and its reflection in the literary texts of the age
	3	Remember the prominent works of the classical writers
	4	Apply the features of the different literary forms to the prescribed texts
	5	Evaluate the technical aspects in the given texts
AMERICAN LITERATURE	1	Understand the American outlook as seen in the prescribed texts
	2	Analyse works of literature, its forms and features in the American context
	3	Remember the writers and the period to which they belonged
	4	Apply critical theories to contemporary American texts
	5	Evaluate the works of writers from a researcher's perspective
SHAKESPEARE	1	Understand the language and techniques in the plays of Shakespeare
	2	Create a better society from the morals and lessons learnt through the texts
	3	Identify characters and lines from the texts prescribed
	4	Apply literary theories to any given Shakespearean text
	5	Compare the literature of the Elizabethan era with that of another
GRAMMAR FOR COMMUNICATION	1	Understand the need and right usage of grammar
	2	Remember the basic rules in grammar for effective communication
	3	Construct good passages without errors
	4	Construct good passages without errors
	5	Discover opportunities that suit their skills
THE ENGLISH LANGUAGE – I	1	Understand the importance of pronunciation
	2	Apply the rules to articulate sounds
	3	Distinguish sounds and use them appropriately
	4	Evaluate the learning of sounds through simple methods
	5	Create opportunities with the accomplished competency
Second Semester		
BRITISH LITERATURE II	1	List the writers and the works of the period
	2	Interpret any work with a clear understanding of the features of the age
	3	Identify new areas of study and apply the theories learnt
	4	Simplify the prescribed texts for better understanding
	5	Justify the understanding of the writers through projects and assignments
	1	Understand the writers and works of different periods from the Indian point of view

INDIAN WRITING IN ENGLISH	2	Identify the context and get a clear picture of Indian life portrayed in the works
	3	Analyse any given work from a critical perspective
	4	Assess the quality of literature produced from the subcontinent
	5	Develop a research mind to explore new areas for research

ENGLISH LITERATURE FOR COMPETETIVE EXAMINATIONS	1	Remember the literary terms forms and theories
	2	Understand he different periods of English literature
	3	Apply the learnt theories to any text
	4	Analyse any given text thematically and technically
	5	Interpret any literary piece of work

NEW LITERATURES IN ENGLISH	1	Choose texts from different parts of the world and understand the background of that literature
	2	Translate some of the texts into regional languages
	3	Apply the theories of comparative literature to study the literature of two different countries
	4	Analyse the texts from different perspectives
	5	Develop an interest in world literature

THE ENGLISH LANGUAGE II	1	Outline the history of the English language
	2	Summarize the growth of the English language
	3	Identify in the changes in the structure of the language down the years
	4	Make use of the knowledge gained to improve their communication skills
	5	Select unexplored areas of the English language for research

Third Semester		
BRITISH LITERATURE III (FROM THE VICTORIAN AGE TO THE MODERN AGE)	1	Remember the writers and works of the periods
	2	Understand the shift in thought and techniques from the Victorian to the modern period
	3	Apply the theories of the age to the prescribed texts
	4	Analyse any literary work keeping in mind the age and its features
	5	Identify areas for research

ENGLISH LITERATURE FOR COMPETETIVE EXAMINATIONS II	1	Remember the literary terms forms and theories
	2	Understand he different periods of English literature
	3	Apply the learnt theories to any text
	4	Analyse any given text thematically and technically
	5	Interpret any literary piece of work

METHODS OF TEACHING ENGLISH	1	Remember the various methods and its significance in effective teaching
	2	Understand the importance of following the different methods
	3	Apply the learnt methods into practice
	4	Analyse ways to improvise the methods for better understanding
	5	Create innovative methods for a complete understanding

	1	Remember the theories and theorists of the different periods
	2	Understand the theories and the changes in outlook down the years

LITERARY CRITICISM AND THEORY	3	Apply the relevant theories to any literary text
	4	Analyse a piece of literature from a critical perspective
	5	Evaluate a work of art from the theoretical point of view

RESEARCH METHODOLOGY	1	Remember the fundamentals of writing research papers
	2	Understand what thesis writing is
	3	Apply literary theories to research
	4	Analyse texts from different perspectives
	5	Improve the quality of research through the knowledge gained

Fourth Semester		
INTRODUCTION TO WOMEN'S STUDIES	1	Relate the writings of women from other parts of the world to ours
	2	Interpret the works of prominent women writers
	3	Experiment with different writings for research
	4	Survey the literature of different countries on the style and themes
	5	Choose different areas for research from the knowledge gained

MASS COMMUNICATION AND JOURNALISM	1	to understand the basic concepts in mass communication
	2	Basic of journalism
	3	Theories associated to mass communication and journalism
	4	Apply in practicing journalism

PSYCHOLOGY		
First Semester		
GENERAL PSYCHOLOGY -1	1	To understand different models of human behavior based on science
	2	To analysis major components of biological systems studied in psychology
	3	Evaluate the methods to improve memory and problem solving
	4	Design, conduct, or evaluate basic psychological techniques to improve personality
	5	Apply psychological principles to everyday life

DEVELOPMENTAL PSYCHOLOGY – I	1	To remember thebasic conceptsofhumanlifespanundervariousperiods
	2	To analysis major components of humanlifetransitionsacross different ages
	3	Evaluate the different stages of life and it's impact on health and well-being
	4	Understand the characteristicsofeachlifespanstage through empirical findings
	5	Apply psychological principles in the developmental process

BIO-PSYCHOLOGY - 1	1	Able to evaluate basic brain structures and functional neural systems
	2	To remember process of signalling between nerve cells including chemical neurotransmitters
	3	To analysis the role of neurotransmitters in human functioning
	4	To understand the functional organization of the sensory systems
	5	To apply the bio-psycho premises to predict, enhance human emotions

Second Semester		
	1	Definethefundamentalconceptsofpsychology

GENERAL PSYCHOLOGY – II	2	Identify the basic psychological processes underlying human behavior
	3	Develop knowledge about various levels of consciousness
	4	Apply Learning principles in influencing behavior and decision making
	5	Analyzevariousfactorsassociatedwithstigmasurrounding psychologicalproblems

DEVELOPMENTAL PSYCHOLOGY II	1	Recognize the physiological and psychological changes occurring in the adolescent years
	2	Expresstheimportanceofdevelopingthelifeskillsintheadulthood
	3	Interpretcompassionatebehaviorseentowardsfellowindividualsinold age
	4	Predict the difficulties witnessed in making decisions upon middleAge
	5	Analyzetheinterestseeninadolescentstowardseradicatingmyths inpsychology

BIOPSYCHOLOGY	1	Recall the influence of brain over various physiological human motives
	2	Identify the importance of brain damage and various disorders relatedto human brain
	3	Examine the role of limbic system in managing human emotions
	4	Illustrate the role of left cerebral hemisphere in decision making
	5	Analyze the impact of neural degeneration in an individual

Third Semester		
ABNORMAL PSYCHOLOGY I	1	Analysis the interaction of biological, cognitive and sociocultural factors in abnormal behavior
	2	Evaluate psychological research relevant to the study of abnormal behaviour
	3	Remember thecultural and ethical considerations in diagnosis the disorders
	4	Design, conduct, or evaluate treatment process
	5	Apply the contemporary theories and research related to causes and treatments of psychological disorders

EXPERIMENTAL PSYCHOLOGY- I	1	To become proficient in measuring sensory dimensions of human behaviour
	2	To become proficient in measuring personality tests
	3	To become proficient in measuring sensory motor test in assessing human efficiency
	4	To become proficient in measuring attention aspects of human behaviour
	5	To become proficient in measuring tests to learning and association

PSYCHOLOGICAL STATISTICS	1	Evaluate the primary methods of inquiry and statistical analysis in psychology
	2	Understand the advantages and limitations of different statistical methods used in psychological research
	3	To apply an appropriate statistical analysis for the data
	4	To analysis the role of different statical techniques in psychological research
	5	Remember the ethics in preparing the data for analysis

COUNSELLING PSYCHOLOGY	1	To apply the counselling models across all stages of development
	2	To evaluate about need of counselling in career and work, and dealing life transition
	3	Understand the role of counselling in Crisis intervention, disaster and trauma.
	4	Analysis the different models of counselling psychology
	5	Apply in relationship difficulties-including marital and family difficulties

Fourth Semester		
	1	Definetheexperienceofanxietyandrelateddisordersinanindividual

ABNORMAL PSYCHOLOGY - II	2	Outline the disorders of sexual variance and cognitive impairment
	3	Identify the spectrum disorders of schizophrenia
	4	Identify the bipolar tendencies experienced by an individual
	5	Examine the various forms of therapies and their effectiveness

EXPERIMENTAL PSYCHOLOGY- II	1	To asses and interpret the Perception of an individual
	2	To assess the various emotion pattern of an individual
	3	To analyze the need pattern of social motive
	4	To evaluate the reaction time of an individual
	5	To analyze the learning process of an individual

RESEARCH METHODOLOGY	1	Definethevarioustypesofresearch in psychology
	2	Outline the formation of hypothesis
	3	Identify the various methods of research design
	4	Identify the various methods used for testing the hypothesis
	5	Examine the statistical techniques and report writing

TESTING AND ASSESSMENT	1	Define the fundamental concepts of testing and assessment
	2	Classifythevariousscalesofmeasurementandpsychometric properties
	3	Identify the various assessment tools available under intelligence
	4	Identifythemeaningandvariousassessmenttoolsusedfor measuringpersonality
	5	Examine various interest, ability and aptitude scales used for career-based assessments

Fifth Semester		
SOCIAL PSYCHOLOGY I	1	To understand the key substantive content of the field of social psychology
	2	Use existing knowledge and concepts to identify the causes of the social behavior
	3	Develop the abilities to analysis regarding the principles of social behaviour
	4	Able to evaluate empirical findings to explain, predict, and influence behavior
	5	Remember the ethics in social psychology research

INDUSTRIAL / ORGANIZATIONAL PSYCHOLOGY – I	1	To analyze the psychological principles influence behavior in the workplace
	2	Evaluate individual behavior in the workplace as influenced by personality, values, perceptions, and motivations
	3	Understand the management style as it relates to influencing and managing behavior in work settings
	4	Create modules to enhance group dynamics, communication, leadership
	5	Apply relevant contemporary theories, concepts and models to analyze real life management situations

HEALTH PSYCHOLOGY	1	To understand the effects of bio, psycho and social factors on a person's health
	2	Knowledge about research in health psychology and critically evaluate the key studies
	3	Apply health psychology theories and research findings to address health-related issues
	4	Analysis the effects of health status and changes in health based on a person's emotions, thinking, and behaivour
	5	Create the healthy relationship and to understand health compromising behaviors

	1	To become proficient in measuring social dimensions of human behaviour
	2	To become proficient in measuring personality tests

EXPERIMENTAL PSYCHOLOGY- III	3	To become proficient in measuring memory and learning aspects of human behaviour
	4	To become proficient in measuring individual's aspiration
	5	To become proficient in measuring tests related to imagination

LIFE SKILL DEVELOPMENT	1	To Identify, understand, and apply contemporary theories of leadership
	2	Understand the communication process, its benefits and challenges
	3	Create strategies to work with others to achieve specific goals
	4	Explore, understand, and lead, guided by the values of self-awareness
	5	Evaluate and improve upon presentation skills strengths and weaknesses

Sixth Semester		
SOCIAL PSYCHOLOGY II	1	Define the basic concepts under social influence
	2	Outlinevariousfactorsassociatedwithaggressivetendenciesofa person
	3	Identify the dynamics of close relationships in an individual
	4	Identifytheextentofindividualcontributiontowardsthegroup success
	5	Examine the effectiveness of various leadership styles

INDUSTRIAL/ORGANIZATIONAL PSYCHOLOGY – II	1	Define the motivation and job satisfaction
	2	Outline the various components of job involvement
	3	Identify the stress in the workplace
	4	Identify the various aspects of engineering psychology
	5	Examine the effectiveness of Industrial Clinical Psychology

EXPERIMENTAL PSYCHOLOGY- IV	1	To asses and interpret the thinking of an individual
	2	To assess the various social skills of an individual
	3	To analyze the level of aspiration
	4	To evaluate the intelligence of an individual
	5	To analyze the ability of an individual

PERSONALITY ASSESSMENT	1	Define the fundamental concepts of personality assessment
	2	Classifythevariousscalesof self – report
	3	Identify the various assessment tools available under clinical disorders
	4	Identifythe various performance based measures.
	5	Examine various interest, ability and aptitude scales used for career based assessments

CONSUMER BEHAVIOUR	1	To understand consumer behaviour in an informed and systematic way
	2	To analyses personal, socio-cultural, and environmental dimensions related to consumer behaviour
	3	To enable students in designing and evaluating the marketing strategies
	4	Application of market research in framingeffective marketing strategies
	5	Analyze the major stages which consumers usually go through when making a consumption

SPORTS PSYCHOLOGY	1	To apply psychological techniques and strategies to enhance performance in sport
	2	Evaluate research in sport psychology and psychological factors related to performance
	3	Apply sport psychology theories and research that best fit different performance

	4	Evaluate the effectiveness of their work with individuals in sport, exercise, and performance psychology	
	5	Create a methods to work with clients in sport, exercise, and performance psychology	

HUMAN RESOURCE MANAGEMENT	1	To understand a the current theory and practice of recruitment, selection, performance appraisal and training	
	2	Evaluate the role of recruitment and selection in relation to the organization's business	
	3	Analyze the key issues related to administering the human elements	
	4	Apply advanced training strategies and specifications for the delivery of training programs	
	5	To create a unique selection strategy for a specific job	

Elective Papers II

GUIDANCE AND COUNSELLING SERVICES	1	Define the meaning and types of guidance
	2	Outline the various testing and non – testing devices
	3	Identify the need and principles of personal guidance
	4	Identify the importance of guidance services
	5	Examinethe general issues and current trends

PSYCHOLOGY OF ADJUSTMENT	1	Define the meaning and types of Adjustment
	2	Outline the negative emotions and adjustment
	3	Identify the Social and Psychology of Adjustment
	4	Identify the importance of quality of life
	5	Examinethe methods to cope stress

Elective Papers III

ENVIRONMENTAL PSYCHOLOGY	1	Understand the research methods in environmental psychology
	2	Outline the ecology and development
	3	Identify the effect of environment on behavior
	4	Identify the importance of saving the environment
	5	Examinethe specific environmental problems.

FORENSIC PSYCHOLOGY	1	Define the meaning and origins of legal psychology
	2	Outline the strength and validity of the evidence
	3	Identify the psychology of confession
	4	Analyze the Profiling criminals from the crime scene.
	5	Examinethe offending behavior programmes

PSYCHOLOGY AND GENDER ISSUES	1	Define the meaning and concepts of gender
	2	Outline the theories of Gender Development
	3	Identify the Perspectives on marital interaction
	4	Analyze the importance of Victimization issues
	5	Examinethe Women and the Criminal Justice System

B. Sc. COMPUTER SCIENCE
First Semester

	1	Learn about the Computer fundamentals and the Problem solving

Computing Fundamentals and C Programming	2	Understand the basic concepts of C programming
	3	Describe the reason why different decision making and loop constructs are available for iteration in C
	4	Demonstrate the concept of User defined functions , Recursions , Scope and Lifetime of Variables, Structures and Unions
	5	Develop C programs using pointers Arrays and file management

Digital Fundamentals and Computer Architecture	1	Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers
	2	Define the functions to simplify the Boolean equations using logic gates.
	3	Understand various data transfer techniques in digital computer and control unit operations
	4	Compare the functions of the memory organization
	5	Analyze architectures and computational designs concepts related to architecture organization and addressing modes

Programming Lab – C	1	Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series
	2	Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers
	3	Remember the logic used in counting the vowels in a sentence
	4	Apply and Analyze the concepts of Structures and File management

Second Semester		
C++ PROGRAMMING	1	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
	2	Illustrate and model real world objects and map it into programming objects for a legacy system
	3	Identify the concepts of inheritance and its types and develop applications using overloading features
	4	Discover the usage of pointers with classes
	5	Explain the usage of Files, templates and understand the importance of exception Handling

PROGRAMMING LAB - C++	1	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
	2	Illustrate and model real world objects and map it into programming objects for a legacy system
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Internet Basics	1	Understand the fundamentals of Internet and the Web concepts
	2	Explain the usage of internet concepts and analyze its components
	3	Identify and apply the online information resources
	4	Inspect and utilize the appropriate Google Apps for education effectively

Third Semester		
Data Structures	1	Understand the basic concepts of data structures and algorithms
	2	Construct and analyze of stack and queue operations with illustrations
	3	Enhance the knowledge of Linked List and dynamic storage management
	4	Demonstrate the concept of trees and its applications

	5	Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations

	1	The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding
	2	Demonstrate the concept of object oriented programming through Java
Java Programming	3	Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence to develop java program
	4	Develop java programs for applets and graphics programming
	5	Understand the fundamental concepts of AWT controls, layouts and events

	1	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding
	2	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping
Programming Lab – JAVA	3	Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.
	4	Develop applications using Strings, Interfaces and Packages and applets
	5	Construct Java programs using Multithreaded Programming and Exception Handling

	1	Understand the basic concepts of software engineering
	2	Apply the software engineering models in developing software applications
Software Engineering and Software Project Management	3	Implement the object oriented design in various projects
	4	Knowledge on how to do a software project with in-depth analysis.
	5	To inculcate knowledge on Software engineering concepts in turn gives a roadmap to design a new software project.

Fourth Semester		
	1	Know the program generation and program execution activities in detail
	2	Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes
System Software and Operating Systems	3	Remember the basic concepts of operating system
	4	Understand the concepts like interrupts, deadlock , memory management and file management
	5	Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system.

	1	Describe the architecture and features of Linux Operating System and distinguish it from other Operating System.
	2	Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration
Linux and Shell Programming	3	Develop shell scripts using pipes, redirection, filters and Pipes
	4	Apply and change the ownership and file permissions using advance Unix commands.
	5	Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications.

	1	Develop Linux utilities to perform File processing, Directory handling and User Management
	2	Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration
LINUX and SHELL PROGRAMMING	3	Develop simple shell scripts applicable to file access permission network administration

	4	Apply and change the ownership and file permissions using advance Unix commands.
	5	Create shell scripts for real time applications.

	1	Prepare a Project Plan with requirement analysis and specification.
	2	Understand and develop cost estimation model for real time applications.
Lab – Software Project Management	3	Implement the concepts of checkpoints in design phase
	4	Analyze the Development phase of the database and text area of the applications.
	5	Create SDLC for real time applications.

Fifth Semester		
	1	Understand the basic concepts of Relational Data Model, Entity-Relationship Model and process of Normalization
	2	Understand and construct database using Structured Query Language (SQL) in Oracle9i environment.
RDBMS & Oracle	3	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions
	4	Understand and use built-in functions and enhance the knowledge of handling multiple tables
	5	Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML)

	1	Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars.
	2	Implement SDI and MDI applications using forms, dialogs and other types of GUI components.
Visual Basic	3	Understand the connectivity between VB with MS-ACCESS database.
	4	Implement the methods and techniques to develop projects.
	5	Attain a good practical skill of managing ODBC and Data Access Objects

	1	Understand the concepts of Visual Basic.
	2	Learn the advantages of Controls in VB
Programming Lab – VB & Oracle	3	Design and develop the event- driven applications using Visual Basic framework.
	4	Apply the knowledge of database methods.
	5	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions

	1	Remembering the concept of operators, data types, looping statements in Python programming.
	2	Understanding the concepts of Input / Output operations in file..
PYTHON Programming	3	Applying the concept of functions and exception handling
	4	Analyzing the structures of list, tuples and maintaining dictionaries
	5	Demonstrate significant experience with python program development environment

	1	Remember the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks.
	2	Understand Internet structure and can see how standard problems are solved and the use of cryptography and network security.
Computer Networks	3	Apply knowledge of different techniques of error detection and correction to detect and solve error bit during data transmission.
	4	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies
	5	Knowledge about different computer networks, reference models and the functions of each layer in the models

Organizational Behaviour	1	Demonstrate the applicability of the concept of organizational behavior to understand the behavior of people in the organization.	
	2	Develop Managerial skills for Individual Behaviors.	
	3	Analyze the complexities associated with management of the group behavior in the organization. Analyze how to manage the Stress during a job.	
	4	Develop an Organizational Behaviour model for any type of Organization.	
	5	Analyze the Common biases and eradication in Decision Making Process	

Software Testing	1	Explain the basic concepts and the processes that lead to software testing	
	2	Design test cases from the given requirements using Black box testing techniques	
	3	Identify the test cases from Source code by means of white box testing techniques	
	4	Know about user acceptance testing and generate test cases for it	
	5	Examine the test adequacy criteria to complete the testing process	

Sixth Semester

Graphics & Multimedia	1	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle-Generating and Ellipse-Generating.	
	2	Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden	
		Line/surface elimination techniques	
	3	Studies concepts of Multimedia Systems, Text, Audio and Video tools	
	4	Compressing audio and video using MPEG-1 and MPEG-2	
	5	Creates Animation with special effects using algorithms	

Project Work Lab	1	Formulate a real world problem and develop its requirements develop a design solution for a set of requirements.	
	2	Test and validate the conformance of the developed prototype against the original requirements of the problem.	
	3	Work as a responsible member and possibly a leader of a team in developing software solutions.	
	4	Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project.	
	5	Generate alternative solutions, compare them and select the optimum one.	

Programming Lab – Graphics & Multimedia	1	Understand the basic concepts of computer graphics.	
	2	Design scan conversion problems using C and C++ programming.	
	3	Apply clipping and filling techniques for modifying an object.	
	4	Understand the concepts of different type of geometric transformation of objects in 2D.	
	5	Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D	

Network Security and Cryptography	1	Remember the basic concept of Cryptography and various types of attacks.	
	2	Understand about various types of protocols for Internet Security.	
	3	Implement various algorithms for Cryptography	
	4	Review Firewall and IP security	
	5	To be familiar with network security threats and countermeasure	

Artificial Intelligence and Expert Systems	1	Understand the nature of AI problems and task domains of AI.
	2	Apply the appropriate search procedures to solve the problems by using best algorithms.
	3	Analyze and select the suitable knowledge representation method.
	4	Manipulate the acquired knowledge and infer new knowledge.
	5	Demonstrate the development of AI systems by encoding the knowledge.

Web Technology	1	Understand and analyse the TCP/IP basics.
	2	Understand Domain server name, FTP, TFTP, basics of WWW, web browser architecture.
	3	Knowledge of Microsoft and java technologies, dynamic web pages, DHTML, ASP and JSP.
	4	Understanding active web pages, Java Applet, Java bean, CORBA, RMI and EDI architecture
	5	Knowledge on XML, XML parser, WAP

Data Mining	1	Identify data mining tools and techniques in building intelligent machines understand
	2	Analyze various data mining algorithms in applying in real time applications.
	3	Demonstrate the data mining algorithms to combinatorial optimization problems
	4	Illustrate the mining techniques like association, classification and clustering on transactional databases.
	5	Perform exploratory analysis of the data to be used for mining

Open Source Software	1	Understand the significance of open source practices and guidelines.
	2	Manipulate open source databases based on user requirements
	3	Implement web programming with PHP
	4	Integrate open source web frameworks in an application
	5	Write desktop and web applications with Python

Internet of Things (IoT)	1	To understand the fundamentals of Internet of Things.
	2	To know the basics of communication protocols and the designing principles of Web connectivity.
	3	To gain the knowledge of Internet connectivity principles
	4	Designing and develop smart city in IoT
	5	Analyzing and evaluate the data received through sensors in IOT.

Programming Lab –Software Testing	1	Understand the importance of software quality/software testing and apply software testing techniques for information systems development.
	2	Generate test cases from software requirements using various test processes for continuous quality improvement.
	3	Understand flow graphs and apply path testing.
	4	Apply software testing techniques in commercial environments and assess the adequacy of test suites using control flow, data flow and program mutation.
	5	Identify the inputs and deliverables of the testing process and work together as a team in preparing a report

B.COM CA		
First Semester		
PRINCIPLES OF ACCOUNTANCY	1	Recall the fundamental concepts of accounting and book keeping.
	2	Solve the errors in book keeping and identify the effect of BRS in an enterprise
	3	Aware of Bills of exchange and its transaction including Accommodation bills

	4	To gain knowledge about the preparation of final Accounts
	5	Understand the Account current statement and procedure for calculation of Average due date methods

INTRODUCTION TO INFORMATION TECHNOLOGY	1	Understand the basic concepts about hardware and software components and data retrieval from various areas of business.
	2	Recall and remember the different types of computers available in business industries.
	3	Aware of different programming and machine level languages and steps to develop computer programmes.
	4	To gain knowledge about e-commerce, internet and extranet understand the uses of world wide web applications.
	5	Create the applications of computer information system in various business fields.

MATHEMATICS FOR BUSINESS	1	Understand the basic concepts of arithmetic and geometric series and different effective rates of interest for sinking fund, annuity and present value.
	2	Know the basic concepts of addition and multiplication analysis and input and output analysis.
	3	Aware of variables, constants and functions and evaluate the first and second order derivatives.
	4	To gain knowledge on integral calculus and determining definite and indefinite functions.
	5	Analyze the linear programming problem by using graphical solution and simple method.

COMPUTER APPLICATIONS: MS OFFICE - PRACTICAL-I	1	Understand the basic concepts computer applications using MS-Office applications for the business transactions.
	2	Create customers list using mail merge for sending letters to the respondents at a time.
	3	Aware and apply various statistical tools available in Ms-excel for the business enterprise transactions.
	4	To gain knowledge making effective presentation for the business meeting using power point presentation.
	5	Understand and evaluate the database using MS-Word and excel.

INCOME TAX LAW & PRACTICE	1	Recall the fundamental concepts of income tax
	2	Analyze the income sources on salaries and house property
	3	Aware on income from other sources
	4	To gain knowledge about capital gains
	5	Understand on assessment of individuals and tax liability

ENTREPRENEURIAL DEVELOPMENT	1	Conceptualize the Entrepreneurship.
	2	Make the students to aware the start up process.
	3	Know the institutional service to entrepreneur.
	4	Gain the knowledge on institutional finance to the entrepreneur.
	5	Know about the incentives and subsidies.

MICRO FINANCE	1	Enable the students to conceptualize the microfinance terms.
	2	Make the students to know about the development of the microfinance.
	3	Understand the credit delivery of the micro finance amount.
	4	Make the students to understand the pricing of the micro finance products.
	5	Understand about the commercial micro finance

Second Semester		
ADVANCED ACCOUNTING	1	Understand the different methods of depreciation.
	2	Solve the problems of branch accounts, hire purchase and installment system.
	3	Know the single entry system and statement of affairs method using conversion method

ADVANCED ACCOUNTING	4	To gain knowledge on Partnership Accounts, Division of Profits, Fixed and Fluctuating Capital, Admission and Retirement of partners.
	5	Understand Dissolution of Partnership and Insolvency of Partners

COMPUTER APPLICATIONS: MS OFFICE - PRACTICAL-I	1	Understand the basic concepts computer applications using MS-Access for maintaining the database.
	2	Create different databases using access application for developing the business transactions
	3	Apply the accounting principles and rules in tally software packages for updating the accounting transactions.
	4	To gain knowledge on creating e-mail in tally package.
	5	Gain the knowledge on visiting a business enterprise website and collect the data.

STATISTICS FOR BUSINESS	1	Understand the basic concepts of arithmetic and geometric mean and different types of data collection.
	2	Know measures of dispersion.
	3	Gain the knowledge on correlation and regression analysis.
	4	Understand the different types of moving averages.
	5	Know and analyze interpolation and probability

BUSINESS FINANCE	1	Introduce the concepts of business finance.
	2	Understand about the financial plans.
	3	Know about the capitalization of the financial sources.
	4	Understand about the capital structure.
	5	Know about the different sources of finance.

BRAND MANAGEMENT	1	Recall various terms and concepts relating to branding
	2	Understand on brand vision and image building
	3	Evaluate the dimensions of branding impact
	4	Differentiate specific components of branding and co-branding
	5	Explain the emerging trends in designing branding

SUPPLY CHAIN MANAGEMENT	1	Recall various terms and concepts relating to supply chain
	2	Understand various forms of supply and demand in supply chain
	3	Evaluate the applications to e-business
	4	Differentiate specific network design in certain and uncertain situations
	5	Explain the emerging trends in supply chain and the regulatory mechanisms

Third Semester		
PRINCIPLES OF MARKETING	1	Understand the different types of marketing and career opportunities in marketing.
	2	Know about the marketing function for achieving marketing goals.
	3	Aware of consumer behaviour and market segmentation and customer relations marketing.
	4	Analyze the marketing mix, product mix and know about the green marketing.
	5	Gain the knowledge on different bureau of Indian standards and consumer protection rights.

	1	Understand the basic concepts of data system, operational data and storage structures of the data
	2	Understand the relation approach and its key relation algebra.

DATABASE MANAGEMENT SYSTEM	3	Aware about embedded SQL.
	4	To gain knowledge on hierarchical approach for knowing the detailed description of the data.
	5	Aware about embedded SQL.

COST ACCOUNTING	1	Understand the different concepts and classification of costs and create cost sheet for the firms.
	2	Gain the knowledge on different types of material controls.
	3	Know the system of labour wage payment, labour turnover and classification of overhead.
	4	Gain the knowledge on different types of process costing.
	5	Understand Operating Costing, Contract costing, and Reconciliation of Cost and Financial accounts

MANAGERIAL ECONOMICS	1	Familiarize the students with the basic concept of managerial economics
	2	Make student understand the demand and supply analysis in business applications
	3	Apply marginal analysis to the firm under different market conditions.
	4	Analyze the causes and consequences of different market conditions.
	5	Familiarize the students with the basic concept of managerial economics

Computer Applications: Oracle -Practical-II	1	Understand the basic concepts computer applications using Oracle for maintaining the database.
	2	Create different databases using access application for developing the business transactions
	3	Gain the knowledge on creating database using oracle.
	4	Gain knowledge on application of oracle statements to extract the particular data base.
	5	Gain the knowledge on developing employees and salary databases using oracle.

INDIRECT TAXES	1	Recall the fundamental concepts of indirect taxes.
	2	Know about the GST concepts.
	3	Know about the filing of returns.
	4	Gain knowledge about levy and collection of tax.
	5	Understand about customs law.

FINANCIAL MARKETS	1	Recall the fundamental concepts of financial markets
	2	Know about the markets for corporate securities.
	3	Know about secondary markets.
	4	Gain knowledge about banks as financial intermediaries.
	5	Understand about new methods of financing.

Fourth Semester		
MANAGEMENT ACCOUNTING	1	Recall the objectives and scope of management and know the relationship between other managerial accounting.
	2	Analyze the performance of the company using different ratios
	3	Understand the working capital requirements of the company using the format.
	4	To gain knowledge about marginal costing and BEP analysis.
	5	Understand about budgeting and budgetary control

OBJECT ORIENTED PROGRAMME WITH C++	1	Compare the different types of languages and find the importance of object-oriented programming language
	2	Know and understand the C++ statements and motivate the students to make use of the statements
	3	Identify the class structure and develop the program.

	4	Develop the program by applying the concept of OOPs
	5	Apply the data file operation technique and evaluate the program in a practical manner

	1	Understand the effectiveness of business communication
	2	To gain the knowledge on creating various forms of letters
EXECUTIVE BUSINESS COMMUNICATION	3	Understand the concept on banking and insurance correspondence
	4	To gain knowledge on report writing
	5	To create a resume

	1	Create programs by applying class and member functions concept
	2	Develop the programs using member function definition
COMPUTER APPLICATIONS : ORACLE & C++ PRACTICAL-II	3	Apply the concepts of oracle to solve the problems of business enterprises.
	4	Develop the students to use the reusability concepts.
	5	Acquire the knowledge on the application of c++ and to solve the problems.

	1	Discuss the Basic concepts, functions and Classification of Banking System
	2	Describe the Recent Trends in Banking.
BANKING THEORY	3	Explain about the Organization structure of Banks and Credit control measures.
	4	Enumerate the Indian Money Market.
	5	Get an insight knowledge on StateBank of India and Commercial Banks.

	1	Conceptualize the nature and scope of Management process
	2	Understand the Planning and decision-making process.
PRINCIPLES OF MANAGEMENT	3	Enlighten about the organization and organization structure.
	4	Enumerate Theories of motivation and incentives.
	5	Make the students to understand the Co-ordination and control process.

	1	Discuss the characteristics of Company and its Formation
	2	Understand about Memorandum and Articles of Association.
COMPANY LAW	3	Get a detailed knowledge on Prospectus and Kinds of shares and Debentures.
	4	Acquire the knowledge on powers and duties of Director and Secretary
	5	Understand about kinds of meetings .

Fifth Semester		

	1	Understand about the fundamental concepts Auditing.
	2	Get a detailed knowledge on internal control in auditing.
PRINCIPLES OF AUDITING	3	Acquire a detailed knowledge on verification of assets and liabilities.
	4	Gain knowledge about Joint stock companies. K2
	5	Understand about investigation.

	1	Understand about the issue of shares of the companies.
	2	Get a detailed knowledge on redemption of preference shares.
CORPORATE ACCOUNTING	3	Acquire a detailed knowledge on preparation of final accounts.

	4	Apply the conceptual knowledge on valuation of goodwill and shares.
	5	Understand about liquidation of companies.

	1	Understand the basic concept of E- Commerce and its applications
E-COMMERCE TECHNOLOGY	2	To gain the knowledge on EDI
	3	Understand security and the web
	4	To gain knowledge on consumer aspects in E-Commerce
	5	To know and apply various digital payment methods

	1	Understand the concept on client and server
SOFTWARE DEVELOPMENT WITH VISUAL BASIC	2	To gain the knowledge on IDE
	3	Understand the concept on user defined data types
	4	To gain knowledge on working with controls in VB
	5	Understand on data controls

	1	Understand the basic concepts computer applications using Oracle for maintaining the database.
COMPUTER APPLICATIONS : VISUAL BASIC - PRACTICAL-III	2	Create different databases using access application for developing the business transactions
	3	Gain the knowledge on creating database using oracle.
	4	Gain knowledge on application of oracle statements to extract the particular data base.
	5	Gain the knowledge on developing employees and salary databases using oracle.

	1	Understand the Concepts, functions of banking and relationship between Banker and Customer
BANKING AND INSURANCE LAW	2	Gain knowledge on Negotiable Instruments Act and its kinds
	3	To gain knowledge on functions and principles of Insurance
	4	Gain knowledge on Insurance System and Acts pertaining to it.
	5	Understand the IRDA functioning

	1	Acquire knowledge on basic knowledge on MIS.
MANAGEMENT INFORMATION SYSTEM	2	Know the different types of concepts.
	3	Understand about Information Systems in Business.
	4	Acquire the knowledge on DBMS.
	5	Conceptualize the Functional Management Information System.

Sixth Semester		

	1	Learn the functions and uses of internet.
INTERNET AND WEB DESIGNING	2	Give the knowledge on how to search the web.
	3	Learn to know the uses and applications of HTML.
	4	Make the students to know how to create link the web.
	5	Get a knowledge on how to download and upload the videos.

	1	Create different databases using vb application for developing the business transactions
COMPUTER APPLICATIONS : VISUAL BASIC& WEBDESIGNING PRACTICAL -III	2	Gain the knowledge on creating programs using vb.
	3	Gain knowledge on application of vb in business enterprises.

WEBDESIGNING PRACTICAL-III	4	To gain knowledge on working with web page
	5	To apply the frames in web page

	1	Discuss the concepts of Cyber law and Cyber Space
	2	Describe Cyber Security technical aspects.
CYBER LAW	3	Explain the Evidence Aspects.
	4	Understand the Electronic Data Interchange Scenario in India.
	5	To gain knowledge on Information Technology Act.

M.COM

First Semester

	1	Acquire the knowledge about the nature and scope of Managerial Economics, demand analysis and law of variable proportion.
MANAGERIAL ECONOMICS	2	Understand the role of Managerial Economist, goal of corporate enterprises, demand determinants, types of market, national income and public finance.
	3	Have thorough knowledge about various types of costs and revenues and Break Even point analysis.
	4	Analyze role of managerial economist in demand analysis, cost and production analysis.
	5	Evaluate the value of enterprises, pricing and output decisions, business cycles and causes and remedies of industrial sickness

	1	Comprehend the accounting provisions in the Companies Act relating to preparation of final accounts of a company.
	2	Prepare accounts relating to Amalgamation, Absorption and Alteration of share capital.
CORPORATE ACCOUNTING	3	Prepare accounts at the time of liquidation of companies.
	4	Develop the knowledge on various accounting aspects pertaining to valuation of shares, holding company accounts and banking and insurance companies
	5	Be familiar with the theoretical framework of Human resource accounting, Government accounting , Responsibility accounting and Environmental Accounting

	1	Analyze the impact of hardware and software in business
	2	Discuss the internet security aspects and e-business communication modes
INFORMATION TECHNOLOGY IN BUSINESS	3	Construct the knowledge in data processing
	4	Examine the key features of machine language and input, output devices
	5	Construct the knowledge in e-commerce application and current trends in e-commerce

	1	Recollect the marketing concepts, types and modern marketing concept
	2	Identify the macro and micro environments of a market and buyer behavior
MARKETING MANAGEMENT	3	Locate the different types of products, product line, product mix and pricing decisions
	4	Evaluate the important of channels of distribution and promotional mix
	5	Acquire the knowledge to market the agricultural produce and about marketing research.

Second Semester

	1	Apply a range of quantitative and / or qualitative research techniques to business and management problems / issues
	2	Organize and conduct research in a more appropriate sampling method manner.

BUSINESS RESEARCH METHODS	3	Develop necessary critical thinking skills in order to evaluate different statistical tools used in research.
	4	Demonstrate knowledge and understanding of data analysis and interpretation in relation to the research process by testing hypothesis.
	5	Write a research report and thesis

BUSINESS ENVIRONMENT	1	Inspect the internal and external environment pertaining to business
	2	Evaluate the industry policy and regulations
	3	Analyze the policies and legal provisions of the government
	4	Examine the impact of financial environment and labour legislation in india
	5	Asses the concepts of ethics in business and the relevant fields

APPLIED COST ACCOUNTING	1	Define the classification of cost, methods and techniques
	2	Evaluate cost sheet and material and labour control
	3	Differentiate cost control and cost reduction tools and techniques
	4	Solve labour, overhead and process costing methods
	5	Gain hands on experience in reconciliation of cost and financial accounting.

HUMAN RESOURCES MANAGEMENT	1	Explain human resources planning, dealing with surplus and deficient man power
	2	Describe the meanings of terminology and tools used in managing employees effectively
	3	Prepare a selection strategy for a specific job
	4	Gain knowledge in develop, analyze and apply advanced training strategies and specifications for the delivery of training programs
	5	Compare and contrast the different techniques involved in the performance appraisal process.

Third Semester		
DIRECT TAXES	1	Calculate computation of taxable income under various sources.
	2	Recollect the concept of tax administration and practices.
	3	Acquire the knowledge about latest provision of income tax act.
	4	Gain expert knowledge regarding the legitimate way of Tax Planning and Management.

MANAGEMENT ACCOUNTING	1	Recollect the concept and importance of management accounting.
	2	Understand the role of managerial accounting in management decision making.
	3	Get familiarize various methods and technique of managerial accounting.
	4	Analyze the method and technique of management accounting used for managerial decision making.
	5	Able to prepare budget and budgetary control

FINANCIAL MANAGEMENT	1	Recollect the concept and importance of financial management.
	2	Have thorough knowledge about various sources of long-term and short-term finance.
	3	Examine various method and technique for calculating cost of capital.
	4	Examine different type leverage technique followed by a organization.
	5	Expert knowledge about various dividend policies

	1	Acquire the knowledge about various trends in business.

INTERNET & E-COMMERCE	2	Explore information technology in every aspect of business.
	3	Examine the role of e- commerce in the present business scenario.
	4	Discuss about the cyber security and cyber regulation in global business world.
	5	Discuss future relevance internet business in global business world

Fourth Semester

INVESTMENT MANAGEMENT	1	recall various investment avenues and personal finance.
	2	understand securities markets, regulation and its instruments
	3	examine fundamental analysis of an organization using financial data information.
	4	examine technical analysis of an organization using financial data information.
	5	evaluate risk return of securities in different investment proposal

INTERNATIONAL BUSINESS	1	Recall the concept of international business.
	2	Understand the level of changes international business in global era.
	3	Examine the role of global financial markets and instrument.
	4	Evaluate various functions of WTO, IMF AND IBRD.
	5	Understand various theories of foreign exchange.

PRINCIPLES AND PRACTICE OF INSURANCE	1	Expert knowledge about general principles and concepts of insurance, insurance practices and procedures
	2	Examine various types of insurance and its functions.
	3	Discuss about legal framework about different insurance policies.
	4	Awareness about differed health policies and group insurance
	5	Examine IRDA regulation act.

INDUSTRIAL LAW	1	Understand updated regulatory framework followed by the companies.
	2	Examine various type of industrial act and its functions.
	3	Analyze various opportunities available in various legal compliances so as to enable them employable.
	4	Create knowledge about current practice of industrial law
	5	Able to calculate Payment of Gratuity

Elective

SERVICES MARKETING	1	Examine the nature of services, and distinguish between products and services
	2	Identify the major elements needed to improve the marketing of services
	3	Develop an understanding of the roles of relationship marketing and customer service in adding value to the customer's perception of a service
	4	Examining the key marketing services and market segmentation
	5	Evaluating service quality, measurement, causes and problems, principles guiding improving of quality

MARKETING OF FINANCIAL SERVICES	1	Understand how marketing theory underpins the marketing of financial services
	2	Appreciate how recent thinking in marketing and services marketing applies to financial services
	3	Identify key issues for marketers of financial services
	4	Interpretation of various reforms and types of insurance services related to life insurance

	5	Discussing about the concepts based on real estate industry and their investment pattern in markets, securitization mechanism"s merits in India.

	1	Understand and critically and effectively apply a number of tools available to marketing managers in healthcare sector
	2	Appreciate and exercise critical judgment in implementing the marketing strategies in the health care sector
MARKETING OF HEALTH SERVICES	3	Analyse real-life situations and provide solutions to challenges
	4	Assessing various online critical judgment in implementing the marketing strategies in the health care sector
	5	Adapting various legal systems related to consumer rights & protection, promotion agencies and food nutrition"s in india

	1	Apply relevant technology for the production and management of travel and hospitality experiences.
	2	Plan, lead, organize and control resources for effective and efficient travel and hospitality operations.
TRAVEL AND HOSPITALITY SERVICES	3	Create, apply, and evaluate marketing strategies for travel and hospitality destinations and organizations
	4	Discussing about various hospitality services and its classification of hotels by price level.
	5	Examining the various behavioural profile of users and related to hotel marketing in indian perspective.

	1	Describe Indian Financial System and securities exchange board of India.
	2	Classify Small Savings, Provident Funds, Unit Trust of India and Mutual Funds
FINANCIAL MARKETS AND INSTITUTIONS	3	Explore activities of non-financial banking
	4	Assessing about various investment information and credit rating agency
	5	Identifying about various financial institutions and related to its working and functions

	1	Describe Indian stock exchanges and securities exchange board of India.
	2	Classify and regulate the trading transactions with proper rules and regulations.
INDIAN STOCK EXCHANGES	3	Explore activities of the investors of stock exchange
	4	Determining the securities contracts regulation act and important provisions related to SEBI functions workings.
	5	Examining various basic concepts of internet stock trading features

	1	Evaluating the concepts and market mechanics of different types of financial derivatives
	2	Analyze how financial derivatives are valued, based on the no-arbitrage and risk-neutral valuation approaches
FUTURES AND OPTIONS	3	Evaluate the instruments that can be used to implement risk management strategies
	4	Discovering various pay off for buyer of futures and other options like hedging and speculation.
	5	Identifying the evolution of commodity markets and exchanges in india.

	1	Examining various concepts related to investment and approaches to security valuation
	2	Outline the theoretical contexts of the fundamental and technical analysis
FUNDAMENTAL AND TECHNICAL ANALYSIS	3	Summarize work on the basic tools used by technical analysts
	4	Determining the various theory and technical analysis related meaning
	5	Evaluate securities by measuring the intrinsic value of stock

	1	Remember the major models of international trade and be able to distinguish between them in terms of their assumptions and economic implications
PRINCIPLES OF INTERNATIONAL TRADE	2	Apply the principle of comparative advantage and its formal expression and interpretation within different theoretical models
	3	Simplify form the theory of international trade as well as international trade policy and to demonstrate the relevance of the theory

	4	Discussing about various international investments and its limitations, factors affected by investment Indian companies
	5	Summarize concepts based on multinational corporation and about the globalizations

	1	Recall the export and import licensing procedure
	2	Understand the functions of export and import promotion council
EXPORT AND IMPORT PROCEDURE	3	Analyse the knowledge about customs procedure
	4	Evaluate the trading procedure
	5	Apply the export and import procedure for the given project

	1	Demonstrate the role and significance of foreign trade and its markets with its impact on various sectors in the economy.
	2	Understand the conditions of financial markets and its impact in facilitating the international trade
INSTITUTIONS FACILITATING INTERNATIONAL TRADE	3	Identifying the awareness on the changes in the composition as well as direction of foreign trade after international trade and know the causes and effects of deficits in the balance of payments in facilitating institutions.
	4	Examine international monetary fund and concepts its principles
	5	Identifying various concepts based on international development association and features

	1	Identify the basic difference between inter-regional and international trade
	2	Apply the legal framework in the real life businesses related to foreign trade regulations in India
INDIA'S INTERNATIONAL TRADE	3	Evaluate India's international trade performance about its objectives and principles
	4	Identifying various concepts related to imports related to law of protection their rights
	5	Discovering more about global trades and developing countries and major problems faced by sectors.

B.SC.MATHEMATICS

First Semester

	CO1	Know the concept of Binomial, Exponential, Logarithmic series and their application to summation of series.
	CO2	Acquire a clear knowledge regarding methods to find an approximate roots of the equations .
CLASSICAL ALGEBRA	CO3	Apply the appropriate tests to find the convergence or divergence of an infinite series.
	CO4	ApplyDescartes's rule of signs to find the number of positive and negative roots if any in a polynomial equation .
	CO5	Analyze the relation between roots and coefficients of the polynomial equations.

	CO1	Identify areas in Mathematics and other fields where Calculus is useful.
	CO2	Understand the concepts of Evolutes and Envelopes, methods to find curvature and evolutes.
CALCULUS	CO3	Apply the concept of change of variables in double and triple integrals.
	CO4	Apply double, triple integral to find the area and volume respectively.
	CO5	Apply the Beta and gamma function to solve the multiple integrals.

Second Semester

	CO1	Gain knowledge about the regular geometrical figures and their properties.
	CO2	Describe the geometric concepts.
ANALYTICAL GEOMETRY	CO3	Find equation to tangent, normal at a point on a conic
	CO4	Analyze condition of tangency and find the tangent plane to the central conicoid
	CO5	Analyze conics to explain natural phenomenon

	CO1	Know the expansion of trigonometric functions and hyperbolic functions.
TRIGONOMETRY, VECTOR CALCULUS AND FOURIER SERIES	CO2	Acquire the basic knowledge of vector differentiation and vector integration.
	CO3	Determine and apply the important quantities associated with vector fields such as the divergence, curl and scalar potential.
	CO4	Understand and find Fourier series of a given periodic function.
	CO5	Examine line integral, surface integral, volume integral and inter-relations among them .

Third Semester		

	CO1	Acquire knowledge to solve Differential and Partial Differential Equations.
DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	CO2	Solve higher order linear differential equations.
	CO3	Expose differential equation as a powerful tool in solving problems in Physical and Social sciences.
	CO4	Demonstrate competency to solve linear PDE by Lagrange's method
	CO5	Analyze the concepts of Laplace transforms and inverse Laplace transforms to solve ODE with constant coefficients.

	CO1	Remember the various laws.
STATICS	CO2	Understand the concepts of forces and moments.
	CO3	Understand the concepts of equilibrium.
	CO 4	Apply the concepts of forces and moments.
	CO 5	Analyze the basics of coplanar forces, equilibrium of forces acting on a rigid body and solve the problems.

	CO 1	Understand the basic concepts and application of operations research in various fields.
Operations Research – Paper I	CO 2	Know principles of construction of mathematical models of conflicting situations.
	CO 3	Analyze the relationship between a linear program and its dual.
	CO 4	Apply techniques constructively to make effective decisions in business and solve problems in industry.
	CO 5	Build and solve transportation problems.

Fourth Semester		

	CO 1	Remember the basic kinematics and dynamic concepts.
DYNAMICS	CO 2	Describe the differential equation of Central Orbits .
	CO 3	Apply the concepts of projectiles to solve problems relating to the motion of a projectile.
	CO 4	To understand &apply the concepts of composition of simple harmonic motion in two directions.
	CO 5	Understand impulsive forces and analyze loss of K.E due to direct and oblique impact.

	CO 1	Remember the importance of C language and datatypes.
PROGRAMMING IN C	CO 2	Understand the basic structure, operators and statements of C language.
	CO 3	Understand decision control statements, loop control statements.
	CO 4	Apply the concepts of data types, operators, expressions, control statements, arrays, character arrays and strings to write the C code for a given algorithm.
	CO 5	Read, understand and trace the execution of programs written in C language.

	CO 1	Identify the importance of stocks, the reasons for holding stock in an organization, determine the optimal order quantity for models .
OPERATIONS RESEARCH – PAPER II	CO 2	Explain the various costs related to inventory system.
	CO 3	Apply game theory concepts to articulate real-world situations by identifying, analyzing and practicing strategic decisions .

	CO 4	Apply and extend queueing models to analyze real world systems.
	CO 5	Build and solve assignment model

Fifth Semester		
REAL ANALYSIS - I	CO 1	Remember the basic topological properties of subsets of the real numbers.
	CO 2	Understand the fundamental properties of the real numbers and analyze the real number system.
	CO 3	Learn the concept of limits, sequence, continuity, convergent sequence in metric spaces appreciating the abstract ideas and their applicability .
	CO 4	Have the proficiency in the formulation and construction of proofs of basic results in real analysis.
	CO 5	Demonstrate skills in communicating Mathematics and learn basic techniques and examples in analysis to be well prepared for extended learning

COMPLEX ANALYSIS - I	CO1	Learn techniques of complex analysis effectively to establish mathematical results.
	CO 2	Recognize the simple and multiple connected domains.
	CO 3	Investigate a function for its analyticity and find it series development.
	CO 4	Examine the relationship between conformal mapping and analytic functions
	CO 5	Compute contour integrals directly and by the fundamental theorem

MODERN ALGEBRA - I	CO 1	Recall the properties and extend group structure to finite permutation groups.
	CO 2	Explain the concepts of homomorphism, isomorphism and automorphism.
	CO 3	Demonstrate abstract thinking capacity and ability to prove theorems.
	CO 4	Compare features of different algebraic structures.
	CO 5	Examine the properties of algebraic structures and their role in applied contexts.

DISCRETE MATHEMATICS	CO 1	Assimilate various graph theoretic concepts and familiarize with their applications.
	CO 2	Know and understand about partially ordered sets, Boolean algebra, lattices and their types.
	CO 3	Apply Karnaugh map for simplifying the Boolean expression.
	CO 4	Demonstrate the skill to construct simple mathematical proofs and to validate.
	CO 5	To achieve greater accuracy, clarity of thought and language.

OPERATIONS RESEARCH – PAPER III	CO 1	Know the concept of simulation and simulate a queueing system
	CO 2	Understand the overall approach of dynamic programming.
	CO 3	Solve nonlinear programming problems using Lagrange multiplier and using Kuhn-Tucker conditions.
	CO 4	Apply concepts in optimal scheduling
	CO 5	To formulate a model for solving the intractable problems.

Sixth Semester		
REAL ANALYSIS - II	CO 1	Demonstrate the understanding of continuity, uniform continuity ,compactness ,connectedness.
	CO 2	Understand partitions and their refinement.
	CO 3	Determine the Riemann integrability and the Riemann-Stieltjes integrability of a bounded function.
	CO 4	Examine the derivatives of function.

	CO 1	To recognize and apply the Liouville's theorem, the mean-value property of a function and the maximum modulus principle.

COMPLEX ANALYSIS - II	CO 2	Demonstrate understanding and appreciation of deeper aspects of complex analysis.
	CO 3	Apply residue theorem to compute integrals.
	CO 4	Ability to think critically by proving mathematical conjectures and establishing theorems from complex analysis.
	CO 5	Classify the nature of singularity, poles and residues

MODERN ALGEBRA - II	CO 1	Communicate and understand mathematicalide as and results with the correct use of mathematical definitions, terminology and symbols.
	CO 2	Explain the concepts of base and dimension of Vector space.
	CO 3	To apply the Gram-Schmidt process to construct an orthonormal set of vectors in an inner product space.
	CO 4	Demonstrate competence with the basic ideas of Matrix theory ,Vector spaces, Dual spaces, Linear transformation.
	CO 5	Have an insight to analyze a real life problem and solve it.

OPERATIONS RESEARCH - PAPER -IV	CO 1	Know the principles and applications of information theory.
	CO 2	To understand sequencing, replacement problems.
	CO 3	Demonstrate skills to achieve their objective using sequencing models.
	CO 4	Apply decision making under different business environments.
	CO 5	Determine a solution to a rectangular game using simplex method.

Elective		

ASTRONOMY – I	CO 1	Define properties of physical systems that comprise the known universe
	CO 2	Understand the Solar system, Celestial sphere, Dip-Twilight & Keplar's laws.
	CO 3	Apply their physics and mathematical skills to problems in the areas of planetary science.
	CO 4	Demonstrate the skill to infer valid scientific conclusions and communicate those conclusions in a clear and articulate manner.
	CO 5	Analyze the astronomical concepts.

NUMERICAL METHODS - I	CO 1	Remember the concepts of errors and its effect on computation.
	CO 2	Obtain numerical solutions of algebraic and transcendental equations.
	CO 3	Apply the finite difference and interpolation concepts.
	CO 4	Develop skills in designing mathematical models for constructing polynomials to the given data and drawing inferences.
	CO 5	Analyze the efficiency of iteration methods.

ASTRONOMY II	CO 1	Understand the concepts of precession and nutation.
	CO 2	Describe the eclipse of the moon.
	CO 3	Find equation of time.
	CO 4	Demonstrate the ability to analyze the concepts.

Numerical Methods II	CO 1	Familiarize with numerical integration and differentiation, numerical solution of ordinary differential equations.
	CO 2	Distinguish methods of Taylor series, Euler's, Modified Euler's and Runge Kutta methods to find solutions of differential equations.
	CO 3	Apply the techniques for enormous application in the field of Science and some fields of Engineering.
	CO 4	Compute the integrals and derivatives by using the appropriate technique.
	CO 5	Find the numerical solution of second order O.D.E by finite difference method.

	CO 1	Identify the properties of different types of graph and their application.
	CO 2	Demonstrate knowledge of basic concepts in graph theory .
GRAPH THEORY	CO 3	Understand cut graphs ,cycle spaces
	CO 4	Apply principles and concepts of graph theory in practical situations.
	CO 5	Analyze the concepts of Planar graphs.

	CO 1	Acquire a fundamental understanding of the core concepts in automata theory and formal languages.
	CO 2	Design grammars and automata for different language classes.
AUTOMATA THEORY AND FORMAL LANGUAGES	CO 3	Describe the types of grammar and derivation tree.
	CO 4	To apply context-free languages, push-down automata.
	CO 5	Design automata, regular expressions and context-free grammars accepting or generating a certain language.

	CO 1	Know about class structure, member functions & data members, inheritance types and example problems .
	CO 2	Understand how C++ improves C with object-oriented features.
PROGRAMMING IN C++	CO 3	Develop programming skills.
	CO 4	To make use of objects and classes for developing programs.
	CO 5	Build C++ classes

	CO 1	Understand the concepts of divisibility and primes
	CO 2	Solve congruence.
NUMBER THEORY	CO 3	Describe the fundamental theorem of Arithmetic.
	CO 4	Understand the concepts and apply the theorems in areas of Mathematics.
	CO 5	Compute powers of integers modulo prime numbers

	CO 1	Understand the need for digital transformation.
	CO 2	Apply the industry 4.0 tools.
INTRODUCTION TO INDUSTRY 4.0	CO 3	Analyze the applications of Big Data .
	CO 4	Examine the applications and security of IoT Applications.
	CO 5	Know the reason for adopting Industry 4.0 and Artificial Intelligence.

B.SC.PHYSICS

First Semester

	1	understand and define the laws involved in mechanics.
	2	gain deeper understanding of mechanics and its fundamental concepts.
	3	understand the concept of properties of matter and to recognize their applications in various real problems.
MECHANICS, PROPERTIES OF MATTER AND SOUND	4	analyze the universal behavior of wave motion.
	5	learning the basic concepts of elasticity, surface tension, Gravitation, viscosity, and sound and evaluating their values for various materials.
	6	explore the production and application of ultrasonic wave

Second Semester

	1	realise various principles and laws of heat
HEAT AND THERMODYNAMICS	2	derive expressions and find experimental verifications for the laws studied

	3	analyse the applications of heat and thermodynamics in various areas and solve the real life problems.

	1	analyze the concepts of Viscosity, Surface Tension and Young's Modulus of different substances
CORE PRACTICAL I	2	explore the knowledge of Spectrometer and other Optical instruments
	3	realize principles and applications of Potentiometer, Sonometer, Magnetometer and PN junction diode.

Third Semester		

	1	remember the behavior of light on passing through lens, prism, thin film and grating
OPTICS	2	understand the phenomena of light like Interference, diffraction, polarization and population inversion
	3	analyze and apply the concepts of dispersive power, refractive index, resolving power, double refraction, specific rotation and optical pumping for different materials

	1	use the concepts of measurement.
	2	understand a typical instrument design.
INSTRUMENTATION - I	3	apply statistical error analysis for measurement
	4	choose a transducer/sensor for typical measurement of temperature, pressure and flow.
	5	evaluate the performance and reliability of measurement devices available in market.
	6	design a basic measurement device.

Fourth Semester		

	1	analyse various types of spectrographs to study about the positive rays
ATOMIC PHYSICS AND SPECTROSCOPY	2	explain magneto optical properties of materials
	3	find applications of photo electrical cells and X Rays

	1	apply the concepts of Specific heat capacity and Young's Modulus of different substances
CORE PRACTICAL II	2	acquire the knowledge of Physical optics using Spectrometer
	3	evaluate principles and applications of Potentiometer, Magnetometer and BG.

	1	use thermal and nuclear radiation detectors
	2	understand the high temperature process in transient and industrial conditions
INSTRUMENTATION II	3	use adequate equipment to determine the state of pollution in the environment
	4	design and use simple instrumentation for measurement of mechanical properties
	5	understand the living conditions in industrial areas

Fifth Semester		
	6	apply modelling concepts for the prediction and determination of random vibrations
	1	derive Lagrange's and Hamilton's equations
MATHEMATICAL PHYSICS	2	apply Lagrange's and Hamilton's equations to physical problems
	3	analyze gamma and beta functions and their applications
	4	solve problems on Matrices and apply them to relevant problems
	5	apply Stoke's and Gauss theorems to suitable physical problems

	1	differentiate between different types of amplifiers and their applications
	2	design different types of oscillators
ELECTRONICS	3	apply switching ideas to various devices
	4	analysing the power electronic devices and their uses
	5	design operational amplifier circuits and to analyse their properties

	1	choose the right material for a given application based on Fermi level concept
SOLID STATE PHYSICS	2	analyze the magnetic materials for utilization in varied fields.
	3	design new components or devices using dielectrics and superconductors.

	1	define and derive the laws of electricity and magnetism
ELECTRICITY AND MAGNETISM	2	update the knowledge of properties and magnetism
	3	expertise the skills to manufacture devices

	1	understand the principles of biomedical instruments.
	2	enable the students to understand the working of basic electromagnetic and electronic instruments.
INSTRUMENTATION III	3	appropriately chose electronic components.
	4	carry out minimal testing and maintenance of lab equipment.
	5	troubleshoot simple electronic circuits using multi meters and oscilloscopes.
	6	interpret results of Biomedical measurement.

Sixth Semester		
	1	acquire the knowledge of wave nature of matter and its experimental verification
QUANTUM MECHANICS AND RELATIVITY	2	understand Heisenberg uncertainity principle and apply it to verify problems in atomic and nuclear Physics
	3	Identify the reason behind various physical problems using relativity and to solve them

	1	understand the General properties of Nucleus
NUCLEAR PHYSICS	2	analyze the construction and working of radiation detectors
	3	device instruments utilizing the behavior of nuclear particles

	1	design different types of Power supplies, Amplifiers and Oscillators
CORE PRACTICAL III ELECTRONICS	2	to analyze the characteristics of various Electronic devices like BJT, UJT, LDR, and Solar cell
	3	acquire the knowledge of the characteristics of an operational amplifier

	1	analyze the different types of digital circuits and their applications
DIGITAL AND MICROPROCESSOR	2	realize the applications of registers in computers
	3	update the knowledge of Microprocessor programming

	1	Write and execute programmes in C and C++
C AND C++ PROGRAMMING	2	Analyze the programming concepts for Physics problems
	3	Evaluate the solutions for different Mathematical problems

	1	service and rectify the defects in laboratory instruments

INSTRUMENTATION PRACTICALS	2	service and rectify the defects in simple house hold devices.
	3	device new instruments applying the knowledge of instrumentation.

Elective		
PRINCIPLES OF PROGRAMMING CONCEPTS AND C PROGRAMMING	1	design features of programming languages, and justify their own design decisions
	2	critically evaluate what paradigm and language are best suited for a new problem
	3	use C programming to solve Physics problems.

ENERGY PHYSICS	1	understand the heating effect of current and application of it.
	2	select the correct material for making waveguide based on basic optical laws.
	3	understand Maxwell's law of equipartition of energy.
	4	analyze the distribution of energy in the thermal spectrum.
	5	Calculate effective utilization of solar radiation, power in the wind and tidal energy

AGRICULTURAL PHYSICS	1	understand the role of physics in daily life.
	2	introduce technological applications into agriculture.
	3	explore the physical properties of soil and water

DIGITAL AND MICROPROCESSOR	1	draw and construct the logic circuit for any Boolean equation.
	2	apply the Karnaugh Map to simplify Boolean equation and draw a simplified circuit
	3	understand the function of data processing and arithmetic circuits
	4	understand the Mnemonics and Opcodes in the Microprocessor
	5	develop programming skills using the basic concepts.

OPTICAL FIBRES AND FIBRE OPTIC COMMUNICATION SYSTEMS	1	understand the fibre classification.
	2	test the cables during installation of cable based on cable selection criteria.
	3	analyze the attenuation and dispersion in an optical fibre.
	4	calculate the efficiency, modulation bandwidth and spectral emission of light sources.
	5	use the knowledge to make varied link and networking.

BIO PHYSICS	1	understand interactions between various systems of cells.
	2	provide life-saving treatment methods like radiation therapy.
	3	find powerful vaccines against infectious diseases.

Object Oriented Programming with C++	1	understand the concept of data abstraction and encapsulation
	2	learn how to design C++ classes for code reuse.
	3	learn how to use exception handling in C++ programs.

GEOPHYSICS	1	study the genesis and the propagation of seismic waves in geological materials.
	2	apply different techniques to solve complex problems and evaluate large areas of subsurface rapidly.
	3	do modeling and calculations using computers.

INDUSTRY AUTOMATION & ITS APPLICATIONS (INDUSTRY 4.0)	1	understand the basics of windows and internet of things.
	2	be aware of ethical Hacking.

(INDUSTRY 4.0)	3	practice Google apps and recognize their applications in day-to-day life

OPTOELECTRONICS	1	describe basic laws and phenomena that define behaviour of optoelectronic devices.
	2	describe the development and application of optoelectronic systems
	3	interpret the acquired data and measured results.

NON – DESTRUCTIVE TESTING	1	understand the magnetic testing methods and interpretation of results and applications.
	2	understand the application of Thermography, eddy current testing method, ultrasonic and acoustic emission testing.
	3	understand the instrumentation of various Radiography and testing techniques such as Fluoroscopy, Xerography, Computed Radiography and Computed Tomography.

Biomedical instrumentation	1	study the safety instrumentation against radiation, physiological effects due to current passage and electrical accidents in the hospitals.
	2	analyse the theory of Bio-Telemetry, its problems and uses.
	3	evaluate the advances in biomedical instrumentation such as lasers in medicine, endoscope, CT scan, ultrasonic imaging, MRI and biofeedback instrumentation

Modern Display Devices	1	evaluate display performances which are necessary to appropriately select a LCD in clinical situations.
	2	present information in visual or tactile form.

ALLIED		
ALLIED PHYSICS-I	1	understand and define the laws involved in gravitation and elasticity.
	2	develop the knowledge about heat and thermodynamics, sound and spectroscopy.
	3	understand the concept of properties of matter and to recognize their applications in various real problems.

ALLIED PHYSICS-II	1	Acquire knowledge on basic concepts of photoelectric effect and fission, fusion and to get clear idea on wave mechanics.
	2	Understand the features of Nuclear forces, photo electric cells, semiconductor diodes and their fundamental concepts.
	3	Understand the concept of Laser properties, digital electronics and to recognize their applications in real life.

ALLIED PHYSICS PRACTICALS	1	attain skill to Understand the usage of basic laws and theories to determine various properties of the materials given.
	2	to analyze the characteristics of various diodes and construct power supply.
	3	acquire the knowledge of the potentiometer and to apply it for various experiments.

M.SC.COMPUTER SCIENCE		
First Semester		
ANALYSIS & DESIGN OF ALGORITHMS	1	Get knowledge about algorithms and determines their time complexity. Demonstrate specific search and sort algorithms using divide and conquer technique.
	2	Gain good understanding of Greedy method and its algorithm.
	3	Able to describe about graphs using dynamic programming technique.
	4	Demonstrate the concept of backtracking & branch and bound technique.
	5	Explore the traversal and searching technique and apply it for trees and graphs.

	1	Understand the concept of Object-Oriented development and modeling techniques

OBJECT ORIENTED ANALYSIS AND DESIGN & C++	2	Gain knowledge about the various steps performed during object design
	3	Abstract object-based views for generic software systems
	4	Link OOAD with C++ language
	5	Apply the basic concept of OOPs and familiarize to write C++ program

PYTHON PROGRAMMING	1	Understand the basic concepts of Python Programming
	2	Understand File operations, Classes and Objects
	3	Acquire Object Oriented Skills in Python
	4	Develop web applications using Python
	5	Develop Client Server Networking applications

ADVANCED SOFTWARE ENGINEERING	1	Understand about Software Engineering process
	2	Understand about Software project management skills, design and quality management
	3	Analyze on Software Requirements and Specification
	4	Analyze on Software Testing, Maintenance and Software Re-Engineering
	5	Design and conduct various types and levels of software quality for a software project

PRACTICAL I : ALGORITHM AND OOPS LAB	1	Understand the concepts of object oriented with respect to C++
	2	Able to understand and implement OOPS concepts
	3	Implementation of data structures like Stack, Queue, Tree , List using C++
	4	Application of the data structures for Sorting, Searching using different techniques.

PRACTICAL II : PYTHON PROGRAMMING LAB	1	Able to write programs in Python using OOPS concepts
	2	To understand the concepts of File operations and Modules in Python
	3	Implementation of lists, dictionaries, sets and tuples as programs
	4	To develop web applications using Python

| Second Semester | | |

DATA MINING AND WAREHOUSING	1	Understand the basic data mining techniques and algorithms
	2	Understand the Association rules, Clustering techniques and Data warehousing contents
	3	Compare and evaluate different data mining techniques like classification, prediction, Clustering and association rule mining
	4	Design data warehouse with dimensional modeling and apply OLAP operations
	5	Identify appropriate data mining algorithms to solve real world problems

ADVANCED OPERATING SYSTEMS	1	Understand the design issues associated with operating systems
	2	Master various process management concepts including scheduling, deadlocks and distributed file systems
	3	Prepare Real Time Task Scheduling
	4	Analyze Operating Systems for Handheld Systems
	5	Analyze Operating Systems like LINUX and iOS

ADVANCED JAVA PROGRAMMING	1	Understand the advanced concepts of Java Programming
	2	Understand JDBC and RMI concepts
	3	Apply and analyze Java in Database

	4	Handle different event in java using the delegation event model, event listener and class
	5	Design interactive applications using Java Servlet, JSP and JDBC

	1	Demonstrate AI problems and techniques
	2	Understand machine learning concepts
ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	3	Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning
	4	Analyze the impact of machine learning on applications
	5	Analyze and design a real world problem for implementation and understand the dynamic behavior of a system

	1	Able to write programs using R for Association rules, Clustering techniques
PRACTICAL III : DATA MINING USING R	2	To implement data mining techniques like classification, prediction
	3	Able to use different visualizations techniques using R
	4	To apply different data mining algorithms to solve real world applications

	1	Understand to the implement concepts of Java using HTML forms, JSP & JAR
PRACTICAL IV : ADVANCED JAVA LAB	2	Must be capable of implementing JDBC and RMI concepts
	3	Able to write Applets with Event handling mechanism
	4	To Create interactive web based applications using servlets and jsp

Third Semester		
	1	Understand the fundamentals of Digital Image Processing
DIGITAL IMAGE PROCESSING	2	Understand the mathematical foundations for digital image representation, image acquisition, image transformation, and image enhancement
	3	Apply, Design and Implement and get solutions for digital image processing problems
	4	Apply the concepts of filtering and segmentation for digital image retrieval
	5	Explore the concepts of Multi-resolution process and recognize the objects in an efficient manner

	1	Understand the concepts of Cloud and its services
	2	Collaborate Cloud for Event & Project Management
CLOUD COMPUTING	3	Analyze on cloud in – Word Processing, Spread Sheets, Mail, Calendar, Database
	4	Analyze cloud in social networks
	5	Explore cloud storage and sharing

	1	Understand the process of the cryptographic algorithms
	2	Compare and apply different encryption and decryption techniques to solve problems related to confidentiality and authentication
NETWORK SECURITY AND CRYPTOGRAPHY	3	Apply and analyze appropriate security techniques to solve network security problem
	4	Exploresuitable cryptographic algorithms
	5	Analyze different digital signature algorithms to achieve authentication and design secure applications

	1	Understand the concept of data science and its techniques
DATA SCIENCE & ANALYTICS	2	Review data analytics
	3	Apply and determine appropriate Data Mining techniques using R to real time applications

	4	Analyze on clustering algorithms
	5	Analyze on regression methods in AI

	1	To write programs in MATLAB for image processing using the techniques
PRACTICAL V : DIGITAL IMAGE PROCESSING Using MATLAB	2	To able to implement Image Enhancements & Restoration techniques
	3	Capable of using Compression techniques in an Image
	4	Must be able to manipulate the image and Segment it

	1	Understand the concepts of object oriented with respect to C++
PRACTICAL VI : CLOUD COMPUTING LAB	2	Able to understand and implement OOPS concepts
	3	Implementation of data structures like Stack, Queue, Tree , List using C++
	4	Application of the data structures for Sorting, Searching using different techniques.

	1	Understand & implement the basic HTML tags to create static web pages
PRACTICAL VII : WEB APPLICATION DEVELOPMENT AND HOSTING	2	Capable of using hyperlinks, frames , images, tables, ...in a web page
	3	Able to write dynamic web applications using HTML forms
	4	Must be able to write dynamic web applications in PHP & HTML tags using XAMPP.

Elective

	1	Understand the basic concepts of Multimedia
MULTIMEDIA AND ITS APPLICATIONS	2	Demonstrate Multimedia authoring tools
	3	Analyze the concepts of Sound, Images, Video & Animation
	4	Apply and Analyze the role of Multimedia in Internet and real time applications
	5	Analyze multimedia applications using HDTV

	1	Understand the concept of 8051 microcontroller
EMBEDDED SYSTEMS	2	Understand the Instruction Set and Programming
	3	Analyze the concepts of RTOS
	4	Analyze and design various real time embedded systems using RTOS
	5	Debug the malfunctioning system using various debugging techniques

	1	Understand about IoT, its Architecture and its Applications
INTERNET OF THINGS	2	Understand basic electronics used in IoT & its role
	3	Develop applications with C using Arduino IDE
	4	Analyze about sensors and actuators
	5	Design IoT in real time applications using today's internet & wireless technologies

	1	Understand the concepts of Critical thinking and its related technology
CRITICAL THINKING, DESIGN THINKING AND PROBLEM SOLVING	2	Focus on the explicit development of critical thinking and problem solving skills
	3	Apply design thinking in problems
	4	Make a decision and take actions based on analysis
	5	Analyze the concepts of Thinking patterns, Problem solving & Reasoning in real time applications

	1	Understand the need and requirements of mobile communication
	2	Focus on mobile computing applications and techniques
MOBILE COMPUTING	3	Demonstrate satellite communication in mobile computing
	4	Analyze about wireless local loop architecture
	5	Analyze various mobile communication technologies

	1	Demonstrate blockchain technology and crypto currency
	2	Understand the mining mechanism in blockchain
BLOCK CHAIN TECHNOLOGY	3	Apply and identify security measures, and various types of services that allow people to trade and transact with bitcoins
	4	Apply and analyze Blockchain in health care industry
	5	Analyze security, privacy, and efficiency of a given Blockchain system

	1	Understand web services and its related technologies
	2	Understand XML concepts
WEB SERVICES	3	Analyze on SOAP and UDDI model
	4	Demonstrate the road map for the standards and future of web services
	5	Analyze QoS enabled applications in web services

	1	Demonstrate the benefits and ethics of RPA
	2	Understand the Automation cycle and its techniques
ROBOTIC PROCESS AUTOMATION FOR BUSINESS	3	Draw inferences and information processing of RPA
	4	Implement & Apply RPA in Business Scenarios
	5	Analyze on Robots & leveraging automation

BA ENGLISH
First Semester

	1	Comprehend prose passages
PROSE I	2	Enhance reading skill
	3	Analyze the structure and style of Prose pieces
	4	Create simple paragraph

	1	Understand the plot, setting and structure K2
FICTION I	2	2 Identify the techniques used in Fictional writing K3
	3	3 Analyse various themes in the fiction K4
	4	4 Evaluate the role of major and minor characters

	1	Understand the impact of society on Literature
SOCIAL HISTORY OF ENGLAND	2	Interlink the history of England with British English Literature
	3	Analyse the socio-cultural aspects of the society on Literature
	4	Evaluate the literary work by considering its historical aspects

Second Semester

	1	Gain knowledge of poetry of different ages
POETRY –I	2	Understand the literary terms and devices

| POETRY –I | 3 | Analyse a poem |
| | 4 | Learn new dimensions in connecting emotions and languages and create simple poems |

DRAMA I	1	Understand and enjoy reading plays
	2	Identify the elements of Drama
	3	Analyse the plays thematically
	4	Evaluate the characters of the plays

HISTORY OF ENGLISH LITERATURE	1	Gain knowledge of the History of Literature and great authors of English.
	2	Interconnect the history, biography of the author and the works
	3	Analyse the growth of literary genres of specific periods
	4	Evaluate the role of literary movements and their impact on the

Third Semester		
PROSE II	1	Gain knowledge on Prose writing
	2	Identify the literary devices used in writing prose
	3	Analyse the variety of prose pieces
	4	Create a simple and short prose passage

FICTION II	1	Understand the socio-cultural aspect of the society with the help of fiction
	2	Identify the literary elements in fiction
	3	Analyse the plot, character and the techniques in the fiction
	4	Evaluate the work of fiction contemporary Novelists

LITERARY FORMS	1	Understand different literary forms and their charateristics
	2	Differenciate various literary devices
	3	Identify literary devices in a work, compare the genres and their features
	3	Attempt a simple creative writing

Fourth Semester		
POETRY-II	1	Gain intense knowledge of poetry
	2	Understand the literary importance of each poetry
	3	Critically analyse poetry
	4	Create simple poem by using literary devices

DRAMA II	1	To carry in depth knowledge of play
	2	Analyse the literary devices used in plays
	3	Critically evaluate the plays
	4	Able to enact the play

LITERARY CRITICISM	1	Carry Knowledge of leading Critics and their method of criticism
	2	Understand the different schools of criticism and their theories
	3	Interconnect the society, literature and literary criticism to analyse a text
	4	Evaluate a literary text by applying the ideas of the critics

Fifth Semester		
SHAKESPEARE -I	1	Comprehend the plays of Shakespeare
	2	Appreciate the nuances of Shakespeare"s Universality and its impact on reders
	3	Analyse the different types of plays and the devices used.
	4	Evaluate the themes of different kinds of plays
INDIAN WRITING IN ENGLISH	1	Familiar with the prominent writers of Indian Writing in English
	2	Compare the Indian Writing in English with British Literature
	3	Critically analyse the works of Indian Writing in English
	4	Evaluate the social issues represented in the literary text
AMERICAN LITERATURE	1	Understand the diverse group of American authors and their style of writing
	2	Analyse the key ideas, representation of cultural events of historical periods.
	3	Compare American Literature with Indian Writing in English
	4	Create a simple creative writing based on prescribed literary pieces
COMMONWEALTH LITERATURE	1	Comprehend the works of prominent authors in commonwealth Literature
	2	Compare the style of commonwealth writing
	3	Present critical analyse of prescribed literary works
	4	Evaluate the commonwealth literature with the help ofknowledgegained on differentcultures
Sixth Semester		
SHAKESPEARE –II	1	Intensive knowledge on Shakespearean plays
	2	Analyse the universal characterization of Shakespeare
	3	Evaluate the versatile writings of Shakespeare
	4	Enact a scene from Shakespearean play
INTENSIVE STUDY OF AN AUTHOR – RABINDRANATHTTAGORE	1	Carry in-depth knowledge on Tagore"s writing and his literary style.
	2	Analyse the social issues discussed in the works of Tagore
	3	Evaluate Indianism in Tagore"s writing
	4	Compare the works of Tagore with other Indian writers
INDIAN LITERATURE IN ENGLISH TRANSLATION	1	Understand the translated works and its nuances
	2	Analyse the works with the help of literary theory, translate simple works of their mother tongue into English Language
	3	Knowledge on the ethics and impact of translations in Literature
	4	Compare regional literature with English Literature
Job Oriented Course - Paper I	1	Master framing sentence on differentpattern
	2	Apply grammar in Speaking and writing
	1	Transform sentences into different kinds and learn synthesis & transformation of sentences

Job Oriented Course - Paper II	2	Apply grammar in LSRW	
	3	Analyse the usage of words, comprehend the writings and composition	
	4	Adapt professional Writing	

Value Added Course - Paper I	1	Learn phonetics symbols with sounds
	2	Use right accent and rhythm in speaking
	3	Analyze the syllable and accent
	4	Classify the speak sound

Value Added Course - Paper II	1	The concept of general Indian English
	2	Apply intonation accent rhythm in Speaking
	3	Master phonetics symbols and sounds
	4	Transcript into Phonetic language

Professional English I	1	Understand correct usage of vocabulary and grammar in speaking and writing
	2	Enrich the language skills through academic writing
	3	Develop the communicative skills by responding to given situations
	4	Improve the leadership quality and team building
	5	Comprehend the information in various circumstances

Professional English II	1	Understand the importance of language competence in workplace situations
	2	Develop LSRW skills for academic and career purposes
	3	Enhance employability skills through various speaking and writing tasks
	4	Improve the communication suitable for workplace
	5	Enhance digital competence with innovation and imagination

BCA

First Semester

Computing Fundamentals and C Programming	1	Learn about the Computer fundamentals and the Problem solving
	2	Understand the basic concepts of C programming
	3	Describe the reason why different decision making and loop constructs are available for iteration in C
	4	Demonstrate the concept of User defined functions , Recursions , Scope and Lifetime of Variables, Structures and Unions
	5	Develop C programs using pointers Arrays and file management

Digital Fundamentals and Computer Architecture	1	Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.
	2	Define the functions to simplify the Boolean equations using logic gates. K1
	3	Understand various data transfer techniques in digital computer and control unit operations
	4	Compare the functions of the memory organization
	5	Analyze architectures and computational designs concepts related to architecture organization and addressing modes

	1	Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series (Program-1,2,3)

Programming Lab – C	2	Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers (Program-4,5,6,8,10)
	3	Remember the logic used in counting the vowels in a sentence (Program-7)
	4	Apply and Analyze the concepts of Structures and File management (Program-9,11,12)

Second Semester		

C++ PROGRAMMING   ...etion of the course, student will be able to:

C++ PROGRAMMING	1	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
		Illustrate and model real world objects and map it into programming objects for a legacy system.
	2	Identify the concepts of inheritance and its types and develop applications using overloading features.
	3	Discover the usage of pointers with classes
	4	Explain the usage of Files, templates and understand the importance of exception handling

PROGRAMMING LAB - C++	1	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology
	2	Illustrate and model real world objects and map it into programming objects for a legacy system.
	3	Identify the concepts of inheritance and its types and develop applications using overloading features.
	4	Explain the usage of Files, templates and understand the importance of exception Handling
	5	Discover the usage of pointers with classes

Internet Basics	1	Understand the fundamentals of Internet and the Web concepts
	2	explain the usage of internet concepts and analyze its components.
	3	identify and apply the online information resources
	4	Inspect and utilize the appropriate Google Apps for education effectively

Third Semester		

Data Structures	1	Understand the basic concepts of data structures and algorithms
	2	Construct and analyze of stack and queue operations with illustrations
	3	Enhance the knowledge of Linked List and dynamic storage management.
	4	Demonstrate the concept of trees and its applications

Java Programming	1	The competence and the development of small to medium sized application programs that demonstrate professionally acceptable coding
	2	Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling and data persistence to develop java program
	3	Demonstrate the concept of object oriented programming through Java
	4	Develop java programs for applets and graphics programming
	5	Understand the fundamental concepts of AWT controls, layouts and events

	1	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding

Programming Lab – JAVA	2	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping
	3	Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging
	4	Develop applications using Strings, Interfaces and Packages and applets
	5	Construct Java programs using Multithreaded Programming and Exception Handling

Web Programming	1	Understand the basic concepts of Internet, WWW, browsers and Email and protocols
	2	Understand and apply the HTML, HTML elements and formatting styles
	3	Knowledge on creating tables, forms and DHTML
	4	Understand the structure of XML document, DTD and Schema
	5	Knowledge on working with SML, Style sheets and XSL

Fourth Semester		
System Software and Operating Systems	1	Know the program generation and program execution activities in detail
	2	Understand the concepts of Macro Expansions and Gain the knowledge of Editing processes
	3	Remember the basic concepts of operating system
	4	Understand the concepts like interrupts, deadlock , memory management and file management
	5	Analyze the need for scheduling algorithms and implement different algorithms used for representation, scheduling, and allocation in DOS and UNIX operating system.

Linux and Shell Programming	1	Describe the architecture and features of Linux Operating System and distinguish it from other Operating System
	2	Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration
	3	Develop shell scripts using pipes, redirection, filters and Pipes
	4	Apply and change the ownership and file permissions using advance Unix commands
	5	Build Regular expression to perform pattern matching using utilities and implement shell scripts for real time applications.

Programming Lab – LINUX and SHELL PROGRAMMING	1	Develop Linux utilities to perform File processing, Directory handling and User Management
	2	Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration
	3	Develop simple shell scripts applicable to file access permission network Administration
	4	Apply and change the ownership and file permissions using advance Unix commands
	5	Create shell scripts for real time applications.

Lab – Web Programming	1	Understand the problems and create applications in basics of web programming
	2	Understand and develop Web pages with formatting styles.
	3	Apply the features in HTML to present the details given
	4	analyze the problem, apply the concept for developing applications
	5	Create web sites of real time applications

Fifth Semester		
RDBMS & Oracle	1	Understand the basic concepts of Relational Data Model, EntityRelationship Model and process of Normalization
	2	Understand and construct database using Structured Query Language (SQL) in Oracle9i environment.
	3	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions
	4	Understand and use built-in functions and enhance the knowledge of handling multiple tables
	5	Attain a good practical skill of managing and retrieving of data using Data Manipulation Language (DML)

Visual Basic	1	Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars.
	2	Demonstrate fundamental skills in utilizing the tools of a visual environment such as command, menus and toolbars.
	3	Understand the connectivity between VB with MS-ACCESS database.
	4	Implement the methods and techniques to develop projects.
	5	Attain a good practical skill of managing ODBC and Data Access Objects

Programming Lab – VB & Oracle	1	Understand the concepts of Visual Basic.
	2	Learn the advantages of Controls in VB
	3	Design and develop the event- driven applications using Visual Basic framework.
	4	Apply the knowledge of database methods.

Introduction to Compiler Design	1	Understand the use of translators and complier, structure of a compiler
	2	Understand and apply the context free grammars and parsing techniques
	3	Understand and remember the syntax directed translations, intermediate codes
	4	Understand the run time storage schems, error detection and recovery
	5	Understand and apply knowledge on code optimization and code generator

PHP & Scripting Languages	1	Understand the basics of .VB script and Java script
	2	Understand the I/O handling, data validation, Activex control and validation
	3	Understand and remember the java script objects, form validations, cookies and plugins
	4	Understand the sever side scripting language basics
	5	Knowledge on PHP objects, cookies, connecting remote files, and database connections

PYTHON Programming	1	Remembering the concept of operators, data types, looping statements in Python programming.
	2	Understanding the concepts of Input / Output operations in file.
	3	Applying the concept of functions and exception handling
	4	Analyzing the structures of list, tuples and maintaining dictionaries
	5	Demonstrate significant experience with python program development environment

CASE Tools Concepts and Applications	1	Understand the basic concepts of software engineering
	2	Apply the software engineering models in developing software applications
	3	Implement the object oriented design in various projects
	4	Knowledge on how to do a software project with in-depth analysis.

Sixth Semester	

Graphics & Multimedia	1	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle-Generating and EllipseGenerating.
	2	Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques
	3	Studies concepts of Multimedia Systems, Text, Audio and Video tools
	4	Compressing audio and video using MPEG-1 and MPEG-2
	5	Creates Animation with special effects using algorithms

Project Work Lab	1	Formulate a real world problem and develop its requirements develop a design solution for a set of requirements.
	2	Work as a responsible member and possibly a leader of a team in developing software solutions
	3	Express technical ideas, strategies and methodologies in written form. Self-learn new tools, algorithms and techniques that contribute to the software solution of the project.
	4	Generate alternative solutions, compare them and select the optimum one

Programming Lab – Graphics & Multimedia	1	Understand the basic concepts of computer graphics.
	2	Design scan conversion problems using C and C++ programming.
	3	Apply clipping and filling techniques for modifying an object.
	4	Understand the concepts of different type of geometric transformation of objects in 2D.
	5	Understand and develop the practical implementation of modeling, rendering, viewing of objects in 2D

Computer Networks	1	Remember the organization of computer networks, factors influencing computer network development and the reasons for having variety of different types of networks.
	2	Understand Internet structure and can see how standard problems are solved and the use of cryptography and network security.
	3	Apply knowledge of different techniques of error detection and correction to detect and solve error bit during data transmission.
	4	Analyze the requirements for a given organizational structure and select the most appropriate networking architecture and technologies.
	5	Knowledge about different computer networks, reference models and the functions of each layer in the models

Dot Net Programming	1	Understand the basics of .NET framework and the object oriented programming.
	2	Understand the procedures, File I/O, Error handling and Message queues.
	3	Understand and remember the components in VB.NET IDE, ADO.NET and also the window forms.
	4	Understand the HTML server controls, Web controls, Validation controls and state management and tracing.
	5	Knowledge on SOAP, building web services and deploying and publishing web services, Finding and consuming web services.

Distributed Computing	1	Understand the concepts and techniques in distributed computing and client server computing.
	2	Understand the pros and cons of distributed processing, databases, challenges.
	3	Understand the design considerations in distributed computing
	4	Understand and analyse the client server network model, file server, printer server and email server.
	5	Understand and obtaining the Knowledge on distributed databases, R* project techniques.

	1	To understand the fundamentals of Internet of Things.

Internet of Things (IoT)	2	To know the basics of communication protocols and the designing principles of Web connectivity.
	3	To gain the knowledge of Internet connectivity principles
	4	Designing and develop smart city in IoT
	5	Analyzing and evaluate the data received through sensors in IOT.

Web Services	1	Understand about the distributed computing, web services, technologies and applications, XML document (WSDL) and the concepts of XML, protocol (SOAP), locating the remote web services
	2	Understand the concepts of UDDI and its specifications, Understand the concepts of system interface and its workflow, the common attacks.
	3	Examining the concepts of architecture of system to meet the user requirements and analyse the concepts of mobile and wireless services, Design and develop the real-world enterprise applications using web services.
	4	Analysing the steps necessary to build and deploy the web services.
	5	Applying the applications created based on the web services on different web servers.

Software Testing	1	Explain the basic concepts and the processes that lead to software testing
	2	Design test cases from the given requirements using Black box testing techniques
	3	Identify the test cases from Source code by means of white box testing techniques
	4	Know about user acceptance testing and generate test cases for it
	5	Examine the test adequacy criteria to complete the testing process

Lab – CASE TOOLS LAB	1	Prepare the CASE tools for the given specification.
	2	Understand and develop the UML diagram for real time applications.
	3	Design the real time test cases
	4	Analyze the development of CASE tools
	5	Design the CASE tools and generate VB code