VLB JANAKIAMMAL COLLEGE OF ARTS AND SCIENCE

KOVAIPUDUR, COIMBATORE - 24

Course Outcomes - All Courses

BBA

To Develop the knowledge, skill and attitude creatively and systematically to solve the managemer problems and work effectively in modern business organizations

To Demonstrate the critical thinking mindset and the ability to identify and formulate research and t provide valid conclusions and contextual approaches across a variety of subject matter.

Function effectively as an individual and as a member or a leader in teams and in multidisciplinary b demonstrating lifeskills, copering skills and human values.

Develop fundamental indepth knowledge and understanding of princples concepts, values, substantive rule and development core areas of business such as finance, accounting, marketing, HR, operations along with Graduate will recognize the need for adopting to change and have the aptitude and ability to engage i PROGRAMME OUTCOME (PO): independent and life-long learning in the broadest context of socioeconomic, technological and global Graduates will be capable of making a positive contribution to business, trade and industry in the nationa and global context.

Graduates will be able to apply frameworks and tools to arrive at informed decisions in profession and practice, striking a balance between business and social dimensions.

PROGRAMME SPECIFIC OUTCOME (PSO)

Course

S.No Code Course Name

Graduates with flair of self-employment will be able to initiate and build upon entrepreneurial ventures c demonstrate intraprenership for their employer organizations.

Understanding the concepts of Management and Administration

To understand various functions of Management

Acquired knowledge about the MBO concepts

Course Outcome

1 21BBA101	PRINCIPLES OF MANAGEME NT	To Gain knowledge about Management process To Know about the current developments in Management practices.
		Acquire conceptual knowledge in basics of accounting
		Know about subsidiary books
		Helps to Prepare final accounts
	FINANCIAL	to know the role of accounting information and its limitations
2 21BBA102	ACCOUNTIN G	Identify events that need to be recorded in the accounting records
		To know about organisation and its functions
		Helps to know Perception and motivation concepts
		Know about different leadership styles
	ORGANIZATI ONAL	Getting knowledge about group and managing conflicts
3 21BBA201		Get ideas about organisation climate and culture
		Helps to understand business firm
		To Understand demand elasticity Concept
		To Know about production functions
		To Know about cost and revenue theory

BUSINESS

4 21BBA202 ECONOMICS To Understand different Pricing and structure

Understanding Marketing Concepts

To Know about buyer behaviour

Get to know Products and its Market

MARKETING Understand Pricing Policies

MANAGEME

5 21BBA301 NT To Know about different advertising medias

To Acquire knowledge about production management

To Understand Production layout and planning

PRODUCTIO Know about Purchasing Procedures

N AND

OPERATION MANAGEME

Understanding inventory functions

6 21BBA302 NT Know about ISO and AGMARK

Understanding about information system

Know the MIS concepts

Know about transaction of documents

MANAGEME

NT Understanding the Data base design and techniques

INFORMATIO

7 21BBA303 N SYSTEM Know about different Networking systems

To Know the basic concept of cost and how costs are presented in financial statements.

To understand how cost accounting is used for decision making and performance evaluation.

To understand materials, labor and overhead costs are added to a product at each stage of the production

cycle

COST ACCOUNTIN

To know variable cost variances and fixed cost variances

8 21BBA304 G

Understand the marginal costing techniques

Should have acquired knowledge about Tax

Know about heads of income

Understanding about computation of income

Getting some knowledge about Capital gains

BUSINESS

9 21BBAA03 TAXATION

Know about VAT, TNVAT

To understand about processor to create ,edit and format documents.

On successful completion of this introduction of computers students will have the knowledge abou

computer system

To develop creativity among students in designing a presentation of powerpoint which helps them to create

basic presentation.

PC

SOFTWARE

To develop technical and communication skills of students by using internet and it is common userfriendly.

10 21BBASB1 LAB

To develop the skill based office related documents work.

Understand the basic concepts of Customer relationship management

To know about Customer and the Satisfaction of needs.

CUSTOMER RELATIONSH

To know about the need of CRM and Business.

ΙP

To know about the implementation of CRM strategies

MANAGEME

11 21BBASB2 NT To formulate and assess strategic and implementation of CRM decisions.

Understand major causes of work-related accidents in offices.

To know about the threats to a computer network, methods of avoiding attacks, and options in dealing wit

virus attacks.

To know about potential abuse and unethical uses of computers and networks.

MULTIMEDI A AND ITS APPLICATIO

To know the process of planning, organizing, and storyboarding a multimedia project.

12 21BBAOE1 NS Understand multimedia objects and related resources.

Understand the functions of HRM

To Know about Job analysis and job descriptions

Ability to Draft Human Resource Planning

HUMAN RESOURCE MANAGEME

Ability to understand the theories related to Human Resource Management.

13 21BBA401 NT

Ability to handle employee issues and evaluate the new trends in HRM

To know the concepts and need of Research

To understand the flow of Research Process

	RESEARCH METHODS	To understand the types of Research and Design.
F	FOR MANAGEME	Develop skills in qualitative and quantitative data analysis and presentation
14 21BBA402 N		To Understand the Layout for writing research report.
		To understand management accounting and its objectives in facilitating decision making.
		To learn various accounting ratios, reports and relevant data
N	MANAGEME	To Know the cost-volume-profit techniques to determine optimal managerial decisions.
N	NT ACCOUNTIN	To understand master budget and demonstrate the relationship between the components. To know Cash Flow and Funds Flow statements this helps in planning for intermediate and long-terr finances.
		To understand how knowledge of consumer behaviour can be applied to marketing.
		To relate internal dynamics such as personality, perception, learning motivation and attitude
		To know about consumer protection act 1986
CO	CONSUMER BEHAVIOUR	To Understand about the consumer needs
		To understand Consumer perception and Learning
		To understand the concept of Contract and Agreement.
		To understand the concept of Sale of Goods Act.
		To understand the parties involved in Contract.

LEGAL ASPECTS OF To know the basic concepts and structure of the Legal system.

17 21BBAA04 BUSINESS

To know about the Consumer Rights and protection Act

To know the strategies of Effective Business writing.

To stimulate their Critical thinking by designing and developing clean and lucid writing skills.

To demonstrate his verbal and non-verbal communication ability through presentations.

BUSINESS COMMUNICA

To draft effective business correspondence with brevity and clarity

18 21BBASB3 TION

To developing and delivering effective presentations

Understand about the basic of office

To improve knowledge on office management and its functions.

To Know about office correspondence and record management

MODERN OFFICE

MANAGEME

To Know about office systems and procedures

19 21BBASB4 NT

Understand to know about office personnel relations

Understand about finance functions

Know about Capital, Equity, Debt and Preference Shares

Understanding Capital budgeting

FINANCIAL Know about the capital structure

20 21BBA501	MANAGEME NT	Understand about Working capital Management
		To Understand about new product development
		To Know the concepts of brands
		To Understand the brand positioning
	BRAND AND	To Know measurements and management of brand equity
21 21BBA502		To Know about packing and labeling
		To understand the objective of entrepreneurship and project Management
	ENTREPREN	Know about the project management process.
	EURSHIP AND PROJECT MANAGEME NT	To understand the source of entrepreneurship.
		Know about the preparing of project report
22 21BBA503		Know about different financial assistance provide by Government.
		Understand about business ethics
		To Know about ethical values
	BUSINESS ETHICS AND	To Understand About culture and ethical leadership
	CORPORATE GOVERNANC	To Know about corporate governance
23 21BBA504		To Understand to Corporate social responsibility

To Understand about advertising and its functions

To Know about creativity of advertisement

To Know different advertising media

ADVERTISIN

G AND To understand about promotion mix

SALES

24 21BBAE01 PROMOTION To Understand the sales promotion

To know the banking basic process ideas

Understand the process of banking transactions

To know about the banking methods and ideas

BANKING

LAW AND

25 21BBAE02 PRACTICES To know about Practices of law and methodology

To Know the labour problems in the orgnisaton:

To understand how Labour Welfare helps to foster a sense of responsibilty:

To know human values and personality.

to Know the form filling process

LABOUR

WELFARE

AND

To know the policies to retain the employees

INDUSTRIAL

26 21BBAE03 RELATIONS To understand the bargaining power of the employees

To Know about the original research field

To understand the report writing skills through data collection, data analysis, data extraction, and presentation

To know comprehensively to answer questions from all the courses

To understand Oral Presentation skills by answering questions in precise and concise manner.

PROJECT

To know the confidence level and inter-personal skills. 27 21BBAPR1 VIVA VOCE

To Understand international trade theories

To Know about strategies of international business

INTERNATIO To Know about WTO

NAL

BUSINESS

To Know about concepts of strategy

MANAGEME

To Understand the environmental analysis

To know the importance and concepts of Industrial Relations.

To know the impact and causes of Industrial Conflicts.

To know the concepts and education of Labour Welfare Measures

know the categories of Labour Welfare Act.

INDUSTRIAL

29 21BBA602 LAW

28 21BBA601 NT

Acquire a complete knowledge about Employee schemes Act.

To Know about insurance and its principles

To Understand about life insurance and general Insurance

	INSURANCE	To understand about marine insurance
	FOR BUSINESS	To Know about Miscellaneous insurance and motor insurance
30 21BBA603	PROCESS	To understand various types of insured policies and their benefits.
		Know about the concepts in E-Commerce
		To Gain knowledge about business entity in E-Commerce
		Know about Policies and Seller Protection in E Commerce
	ECOMMERC	To know the evolution of E commerce and thoeries
31 21BBA604	E	To know the interrelation between internet and Intranet.
		Know about event planning and team management
		To Understand the Marketing of events
		Know about the future of event marketing
	EVENT	To understand the process of event marketing.
32 21BBAE04	MARKETING	Know about 5C s in Event marketing Understand the role and function of the financial system in reference to the magnetic accounts.
		Understand the role and function of the financial system in reference to the macro economy. Demonstrate an avvarances of the current structure and regulation of the Indian financial services sector.
		Demonstrate an awareness of the current structure and regulation of the Indian financial services sector. Evaluate and create strategies to promote financial products and services.
		Evaluate and create strategies to promote imancial products and services.

FINANCIAL		To know the dimensions of performance and risk relevant to financial services companies
33 21BBAE05		To Know the contemporary managerial risk management processes
		To know the importance of Human resource
		To gain the knowledge on Human Resource thoery
	HUMAN	To know the importance of Team Management
	RESOURCE DEVELOPME	To understand the factors influncing the Human Resource Development
34 21BBAE06		Understand the history, origins of Human resource development.
		Know about the importance of Quality Improvement -
		To know the concepts in Logistices Management
		Understand the various concepts in SCM
	SUPPLY CHAIN AND	Understand the fundamentals of outsourcing and proceurment management.
35 21BBAE07		To Develop optimisation in logistics process
		To know the different components of a financial system and their role.
		To know the recent developments in the Indian financial system
	STOCK	To understand the methods of issuing shares and role of intermediaries in the primary market
	EXCHANGE	To know the trade mechanism in the stock market

AND

36 21BBAE08 PRACTICE To Know the various speculators and the activities

Understand the Training and Learning concepts.

Understand the different evaluation in training methods.

Understand to know about skill setting and requirement.

TRAINING

AND Understand the different environment at organisation.

DEVELOPME

37 21BBAE09 NT Understand to know about the recent trends in skill development.

BBA (CA)

Become ethically and socially responsible graducates with computer application knowledge.

Has an ability to apply knowledge of computing and business application appropriate to the discipline.

Apply techniques and professional skills to excel in business.

Evaluate business problem in complex context using social, ethical, economical regulatory and globa prospective.

PROGRAMME OUTCOME (PO): Provide ability to solve problem, decision making in an organization.

To impart conceptual grounding in computer usage as well as its practical business application will be provided.

To provide in basic and essential knowledge regarding various activites undertaken and necessary to ru socially responsible business organizations.

PROGRAMME SPECIFIC

To furnish global view of the several industries and other organizations and their functions which support

the business systems.

OUTCOME (PSO): Course

Course Name Course Outcome S.No Code

Understanding the conce	pts of management and	ladministration
	F	

To understand various functions of management

Acquired knowledge about the MBO concepts

PRINCIPLES

OF

To Gain knowledge about Management process

MANAGEME

1 21BAC101 NT

To Know about the current developments in management practices.

To understand about processor to create ,edit and format documents.

To know about computer system

INTRODUCTI

ON TO

To perform calculations and arithmetic operations using MS excel

INFORMATIO To develop creativity among students in designing a presentation of powerpoint which helps them to create basic presentation.

TECHNOLOG

2 21BAC102 Y

To develop technical and communication skills of students by using internet and it is common userfriendly.

Acquire conceptual knowledge in basics of accounting

Know about subsidiary books

Helps to Prepare final accounts

FINANCIAL ACCOUNTIN Describes the role of accounting information and its limitations

3 21BAC201 G

Identify events that need to be recorded in the accounting records

Acquiring knowledge about MS Word to create official documents

Improve the efficiency of business.

Understanding process of office automation

PC Impact of business and preparing internet process SOFTWARE

4 21BACP01 LAB Understanding the Basic knowledge of creating, designing documents

Understanding Marketing Concepts

To Know about buyer behaviour

Get to know Products and its Market

MARKETING Understand Pricing Policies
MANAGEME

5 21BAC301 NT To Know about different advertising medias

To Acquire knowledge about production management

To Understand Production layout and planning

PRODUCTIO Know about Purchasing Procedures

N AND

OPERATION Understanding inventory functions MANAGEME

6 21BAC302 NT Know about ISO and AGMARK

Students should have understood the concept of system analysis and design

Knowledge of System development life cycle.

Understand of how to analyse the system design and techniques.

SYSTEM **ANALYSIS** Knowing the knowledge of Input and Output design concept

7 21BAC303 AND DESIGN students know about the system design and testing

Understand the concept accounting methods

To learn about how to create a company.

To understand ledger and voucher creation.

G PACKAGE

ACCOUNTIN Understand the basic accounting concepts in computerised manner.

8 21BACP02 TALLY

To gather practical knowledge in computerised accounting.

Should acquired knowledge about the concepts of Tax

Know about heads of income

To Understand the computation of income

To creat an awareness about agriculture income, residential status and incidence/charge of tax.

BUSINESS

9 21BACA03 TAXATION

Know about GST

Acquired knowledge about retailing and its functions

Know about visual merchandising

Understand about retail merchandising

	RETAIL MANAGEME NT	Know about Price determination and policies
10 21BACSB1		Understand the Retail MIS
		Understand the basic concepts of Customer relationship management
		To know about Customer and the Satisfaction of needs.
	CUSTOMER RELATIONSH	To know about the need of CRM and Business.
	IP MANAGEME	To know about the implementation of CRM strategies
11 21BACSB2		To formulate and assess strategic and implementation of CRM decisions.
		Understand the key features of Multimedia techniques .
		Understand the audio and video signals of multimedia
	MULTIMEDI A AND ITS APPLICATIO NS	Understand the impact of the animation development for future applications.
21BACOE 12 1		Learn the animation graphics and working with drawing tools in flash.
		Learn the animation development for future development of application.
		Understand the functions of HRM
		To Know about Job analysis and job descriptions
	HUMAN	Ability to Draft Human Resource Planning
	RESOURCE	Ability to understand the theories related to Human Resource Management.

13 21BAC401	MANAGEME NT	Ability to handle employee issues and evaluate the new trends in HRM
		To know the concepts and need of Research
		To understand the flow of Research Process
	RESEARCH METHODS	To understand the types of Research and Design.
	FOR MANAGEME	Develop skills in qualitative and quantitative data analysis and presentation
14 21BAC402		To Understand the Layout for writing research report.
		Understand about finance functions
		Know about Capital, Equity, Debt and Preference Shares
		Understanding Capital budgeting
	RDBMS AND ORACLE	Know about the capital structure
15 21BAC403		Understand the Working capital Management Concepts.
		To Declare and enforce integrity constraints on a database
		To provide a strong formal foundation in databaseconcepts.
		To provide a sound introduction to the discipline of database management.
	RDBMS AND ORACLE	Understand the participant with the nuances of database environments
16 21BACP03		to give an introduction to systematic database design approaches.

Helps to understand business firm

To Understand demand elasticity Concept

To Know about production functions

To Know about cost and revenue theory

BUSINESS

17 21BACA04 ECONOMICS To Understand different Pricing and structure

To know the strategies of Effective Business writing.

To stimulate their Critical thinking by designing and developing clean and lucid writing skills.

To demonstrate his verbal and non-verbal communication ability through presentations.

BUSINESS COMMUNICA

To draft effective business correspondence with brevity and clarity

18 21BACSB3 TION

To developing and delivering effective presentations

Understand about the basic of office

To improve knowledge on office management and its functions.

To Know about office correspondence and record management

MODERN

OFFICE MANAGEME To Know about office systems and procedures

19 21BACSB4 NT

Understand to know about office personnel relations

Understand about finance functions

Know about Capital, Equity, Debt and Preference Shares

Understanding Capital budgeting

FINANCIAL **MANAGEME**

Know about the capital structure

20 21BAC501 NT

Understand about Working capital Management

To Understand the needs of the consumer.

To understand Consumer perception and Learning

To differentiate the types of consumers

To acquire to know about family and its roles in decision making

CONSUMER

21 21BAC502 BEHAVIOUR Aware about consumer protection act 1986

To implict visual programming environment.

Understand the knowledge of basic toolbars and database tools.

Introduce and apply the concepts program development using a contemporary programming language

VISUAL PROGRAMMI Develop creativity among students in designing forms by tool box.

22 21BAC503 NG(THEORY) Create procedures that are accessible from multiple form modules.

Identify the Visual code window

know about the visual controls

	VISUAL	Develop the GUI interfaces
	PROGRAMMI NG(PRACTIC	Customize GUI applications
23 21BACP04		Develop program code window
		To Understand about advertising and its functions
		To Know about creativity of advertisement
	ADVERTISIN	To Know different advertising media
	G AND SALES PROMOTION	To understand about promotion mix
24 21BACE01		To Understand the sales promotion
		To know the banking basic process ideas
		Understand the process of banking transactions
		To know about the banking methods and ideas
	BANKING LAW AND PRACTICES	to Know the form filling process
25 21BACE02		To know about Practices of law and methodology
		To know human values and personality.
		to understand how Labour Welfare helps to foster a sense of responsibilty:
	LABOUR	To know the policies to retain the employees

WELFARE AND INDUSTRIAL		To understand the bargaining power of the employees
26 21BACE03	RELATIONS	To Know about the original research field To understand the report writing skills through data collection, data analysis, data extraction, and presentation
		To know comprehensively to answer questions from all the courses
		To understand Oral Presentation skills by answering questions in precise and concise manner.
	PROJECT	To know the confidence level and inter-personal skills.
27 21BACPR1		Gain confidence and inter-personal skills.
		Explain the basic concept of cost and how costs are presented in financial statements.
	COST AND MANAGEME	Describe how cost accounting is used for decision making and performance evaluation. Demonstrate how materials, labor and overhead costs are added to a product at each stage of the production cycle
	NT ACCOUNTIN	To understand management accounting and its objectives in facilitating decision making.
28 21BAC601		To learn various accounting ratios, reports and relevant data
		To understand and apply the concept of industrial relations and the system in which it operates.
		Resolve the labour welfare problems and Students will learn the laws relating to Industrial Relations,
		To acquire skills in handling employer-employee relations
		Understand to know about risk and its classifications

29 21BAC602	INDUSTRIAL LAW	To familiarize with the role of management and unions in the promotions of industrial relations.
		Update the knowledge of internet and webapplication concepts.
	INTERNET	Understand the importance of the web and creation of web pages.
	AND WEB DESIGN	Implicit the knowledge of text wrapping and cell spacing and cell padding.
30 21BAC603		Develop technical and communication skills of students by using internet and it is common userfriendly.
		Enable the internet browser
		Understand the web design window
	INTERNET	Understand the internet management process
DESIGN	AND WEB DESIGN	know about modified tools and window
		know about the web browser and internet mails.
		To Know about event planning and team management
		To Understand the Marketing of events
		Know about the future of event marketing
	EVENT	To understand the process of event marketing.
	MARKETING	Know about 5C s in Event marketing
		Understand the role and function of the financial system in reference to the macro economy.

		Demonstrate an awareness of the current structure and regulation of the Indian financial services sector.
		Evaluate and create strategies to promote financial products and services.
	FINANCIAL	To know the dimensions of performance and risk relevant to financial services companies
33 21BACE05		To Know the contemporary managerial risk management processes
		To know the importance of Human resource
		To gain the knowledge on Human Resource thoery
	HUMAN	To know the importance of Team Management
	RESOURCE DEVELOPME	To understand the factors influncing the Human Resource Development
34 21BACE06		Understand the history, origins of Human resource development.
		Know about the importance of Quality Improvement -
		To know the concepts in Logistices Management
		Understand the various concepts in SCM
	SUPPLY CHAIN AND LOGISTICS	Understand the fundamentals of outsourcing and proceurment management.
		To Develop optimisation in logistics process
		To know the different components of a financial system and their role.
		To know the recent developments in the Indian financial system

To understand the methods of issuing shares and role of intermediaries in the primary market

STOCK EXCHANGE

To know the trade mechanism in the stock market

AND

36 21BACE08 PRACTICE To Know the various speculators and the activities

Understand the Training and Learning concepts.

Understand the different evaluation in training methods.

Understand to know about skill setting and requirement.

TRAINING

DEVELOPME

AND

Understand the different environment at organisation.

37 21BACE09 NT Understand to know about the recent trends in skill development.

BACHELOR OF COMMERCE (B.Com)

To promote and showcase general communication and creativity skills with the learning potential c students.

Students shall be able to obtain LSRW skills and help to explore knowledge in various genres.

To realize their responsibility towards the society centre through ethical, social and human values. Enable the students to know the facets of environment and society which assist them to hold the values of life.

To acquire complete knowledge of Finance, Accounting, Information Taxation, Business Law and other are of Commerce.

Equip with Professionals, Inter Personal and Entrepreneurial Skill

Gear up with updated knowledge in implementing Business practice.

To offer a number of Value-based and job oriented courses.

Evaluate Environmental factors that influence Business Operations.

PROGRAMME OUTCOME (PO): Prepare for Post Graduates studies and to achieve success in their Professional Careers.

Students shall inculcate problem solving skills related to Accounting, Costing and Analyzed Financia

Statement of Business establishments.

Reveal the knowledge of various forms of Organisations and the key areas of Marketing and to apply Law

pertaining to Business.

Demonstrate Knowledge of key concepts in Entrepreneurship, Direct and Indirect Taxes

Acquire practical skills to work as tax consultant, audit assistant and in other financial supporting services.

PROGRAMME SPECIFIC

OUTCOME (PSO):

Equip with the knowledge to undertake research in the field of Commerce and Finance.

Course

S.No Code

Course Outcome

Understand the various Concepts and Conventions of Accounting and interpret the financial result of Gros

Profit, Net Profit and the actual financial position (Assets and Liabilities of the Company).

Knowledge on the various methods of depreciation and its causes, Straight line method, Diminishing Balan

method, Annuity method, Sinking fund method calculation

Knowledge on Bill of Exchange and Average due date from the collection of cash from Debtors an

Payment to Creditors.

Interpret Bank Pass Book and Cash Book Maintenance and interpret the financial position of nonprofi

organization.

Principles of

Course Name

1 21BCM101 Accountancy

Understand the concepts of Single-entry system and its methods.

Understand the basics concepts of Commerce

Learn the various forms of Business Organisation

	Describe trade association and Chamber of Commerce and its functions
Business	Understand the basics of International Trade and its importance
2 21BCM102 Organisation	Gain knowledge on International Trade Agreements and Monetary System
	Define and pinpoint the concepts of Economics Understand the supply concept and Law of diminishing marginal utility, Equi-marginal utility an production ,Law of variable Proportion, Return to scale Distinguish the types of competition in Market Structures such as, Perfect ,Monopoly, Monopolistic and Oligopoly competition.
21BCMA0 Business	Describe the important commencement of Economic Growth and Development, Characteristics of under developed countries and Role of Agriculture in Indian Economic Development. Educate the growth of population and Population Policy, Higher Education and its necessity, Health,
3 1 Economics	Infrastructure, Technology and its role in Economic Development. To understand the Accounting treatment for Hire Purchase and Installment system and to know th accounting procedure for Branch and Departmental Accounting. To understand the Accounting treatment of consignment in the books of Consignor and Consignee ar identify the value of unsold stock, normal loss and abnormal loss. Apply the accounting procedure at the time of admission and retirement/death of the partner and the relate accounting treatment
Financial	Apply Garner Vs Murray rule and solve problems relating to insolvency of partners.
4 21BCM201 Accounting	Demonstrate the preparation of statement of affairs in case of insolvency and to frame a deficiency account.
	Understand the conceptual framework of Banking
	Learn the various types of accounts and customers.
	Explain the basic concepts of Cheque, Endorsement and Electronic payment methods.

Banking and 5 21BCM202 Insurance	Know the principles of Insurance and its classifications and understand the IRDA Act.
	Understand the concepts if GIC, Reinsurance and Double Insurance.
	Understand various management concepts and the functions of management.
	Identify the various types of planning policies and types of decisions
	Apply the knowledge of centralization and decentralization and Declaration of authority.
21RCMA0 Principles of	Apply the concept of HRM planning and motivation, attitudes and behaviors impact.
21BCMA0 Principles of 6 2 Management	
	Develop an understanding about redemption of Shares and Debenture and its types
	Understand the concepts and standards underlying the accounting procedures for issue of Debentures
Comparato	To provide knowledge about accounting procedures of Liquidation and Goodwill
Corporate 7 19BCM301 Accounting	To give an exposure to the company final accounts
	Discuss modern computing infrastructures from the perspective of the internet and organizations
	Have the knowledge of different types of networks Discuss and explain theoretical and practical issues of conducting business over the internet and the Web of specific tools, techniques and methods in e-business
	Understand the concepts of EDI and its model

To expose the knowledge about the technologies used in E payment system

To state the law relating to Indian Contract Act and define the concept of contract
To understand the different elements of contract, performance of contract and different modes of discharg of contract

Explain the principles of law that apply to performance of contract

To explain the concept of special contracts

Commercial

9 19BCM303 Law

Develop the students to learn to create company, enter accounting voucher entries.

Practically know about preparation of financial statement by using Tally ERP Able to reconcile bank statement, accrual adjustments, and also print financial statements, etc. in Tally ERP.9 software

Computerized Understand the concepts of GST and making entries Accounting
10 19BCM304 With Tally

Knowledge about Factories act and its Provisions.

Understand about Industrial Disputes Act and it's relating Issues

Analyze Provisions relating to Trade Unions

Insight about Bonus Act and Employee Insurance Act and its Purpose.

19BCMSB 11 1 Ind

Industrial Law Enlightenment of Minimum wages act and Provisions in Workmen's Compensation.

		Describe laws governing cyberspace and analyze the role of Internet Governance in framing policies for Internet security.
		Discuss about Security Aspects and Intellectual Aspects
		Elucidate Evidence aspects and Criminal Aspects
19BCMSB 12 2 Cyber	Cyber Law	Knowledge about Global Trends in EDI in India Understand about Information Technology Act
		Understand the corporate practice in Amalgamation and Absorptions. Develop the skills in preparation of consolidated Balance Sheet of Holding Company and Subsidiar company.
		Accounting Provisions relating to Electricity Company.
	Higher Corporate	Acquaint with the legal formats and special items and adjustments pertaining to Banking companies
13 19BCM401		To Know the Legal Procedures of Insurance company Accounts.
		Understand the formation and kinds of companies.
		Knowledge about Appointing Company Secretary and his Role and Functions
		Acquire knowledge on basic documents in a company and various methods of raising of capital.
	Company Law And Secretarial	Understand about Company Meetings and its Procedures
14 19BCM402		Describe Provisions relating to Winding up of Companies.
		To provide an overview of Prerequisites to Business Communication Modern methods

To develop Knowledge about Business Letters and Bank Correspondence

To use basic mechanics of Oral and Written Communication

To Describe Reports and Non - Verbal Communication.

Corporate

15 19BCM403 Communication To Understand Employment Communication and Modern Form of Communication

Define the core concepts of marketing and discuss the role of marketing in business and society.

Identify the marketing mix elements and describe the components of market mix.

Explain the modern marketing techniques and discuss how it is used to pursue new marketing opportunities

Describe about Market segments and Buyer's Behavior

Principles Of

16 19BCM404 Marketing

Study recent trends in Marketing

Knowledge about Service Marketing Concepts

Understand about Market Segmentation and Approaches.

Identify the marketing mix elements and describe the components of market mix.

Study about Applications of Service Marketing.

19BCMSB Service 17 3 Marketing Know about CRM in Service Marketing

Understand the basic principles underlying the Indirect Taxation Statutes.

Identify and analyze the provisional Aspects of GST.

Study about GST Types and Exemptions.

Knowledge about Registration Procedures and Penalties.

Describe Mechanism of GST Bill.

Understand the fundamental concepts of the Costing

Develop the knowledge about material control

Acquire the skill regarding various methods of wage calculation.

Learn the accounting method in maintenance of process costing

Gain the knowledge about managerial applications of marginal costing

Understand various management concepts and the functions of management.

Identify the various types of planning policies and types of decisions.

Gain knowledge about centralization and decentralization and declaration of authority.

Management

Principles And Develop skills in HRM planning and motivation and attitude.

Practices Exhibit the ability to use theories in the practice of leadership

Explain the basic concepts of Income Tax

19BCMSB Indirect

Taxation

Cost

19 19BCM501 Accounting

20 19BCM502

18 4

Familiarize different heads of income and also determine the income from salary Compute income from house property and also explain the computation of income from profession of business

	Income Tax Law And	Explain the various types of capital assets, compute capital gains and Income from other sources
21 19BCM503		Equip with the assessment of individuals and explain the concept of e-filing.
		Understand the basic auditing principles, concepts, planning an audit and due diligence
		Acquiring complete knowledge about the classification of Audit
		Gain expert knowledge on the qualities and their duties and responsibilities of an auditor.
22 19BCM504	Principles Of Auditing	Know about the audit planning and process of Vouching Illustrate the method for Verification and Valuation of Assets and Liabilities
		Develop an awareness about entrepreneur, skill sets required by an entrepreneur and entrepreneurship.
		Apply the knowledge on project identification and Evaluation.
		Gather knowledge about various institutions facilitating entrepreneurs
Entrepreneurial 23 19BCM505 Development	7	Evaluate various incentives and subsidies available for entrepreneurs
	•	Analyse the causes for industrial sickness and suggest remedies.
	Understand the concept of HRM and its relevance in an organisations	
		Summarize the various functioning of HR Department
		To develop necessary skill set for application of various HR issues
	Human	Demonstrate appropriate HR Competencies at the workplace.

24 19BCME01	Resource Management	Ability to handle employee issues and evaluate the new trends in HRM
24 TybeWiL01	Wanagement	
		Understand the value of relationship management strategy.
		Enable to identify key milestones in the CRM process.
		Analyze different concepts of Integration Business Management in CRM.
25 19BCME02	Customer Relationship Management	Familiarize the E-CRM strategies followed in various CRM system and database marketing. Gather knowledge in CRM programmes and its applicability in different busines
		Understand the concept of organizational behavior and management functions in organization. Gain knowledge about personality and its theories, practically applicable for individual behavior i organization.
		Analyze organization structure and its approaches in managing organizational changes.
	Organisational	Analyze organization culture and corporate culture.
Organisational 26 19BCME03 Behaviour	Gather knowledge in managing the stress and conflict.	
		Understand the basics of the course.
		Develop the skill to analyze various financial statements.
		Acquire the knowledge about various financial ratios and its application
	Management	Learn the practical aspects of working capital and its application.
27 19BCM601	Accounting	Gain the knowledge about Budgetary control.

		Acquire the conceptual knowledge of the business finance and to understand its functions
		Understand the concepts of financial planning.
		Gather knowledge regarding the bases of capitalization.
	Duringer	Acquire the knowledge about theories of capitalization.
28 19BCM602	Business 28 19BCM602 Finance	To identify the various sources of finance. Enable the students to obtain a basic understanding the types of research, process and technique involved i research problem.
		Identify various sampling methods and the research methodology.
Marketing 29 19BCM603 Research	Understand and apply the statistical application in research	
	Montratino	Develop skill in analysis of Sales , market segmentation and its positioning
	_	Gather knowledge on industrial marketing research and preparation of research report.
		Interpret Trends in Retailing services and production
		Summarize the various retail market segmentation
		Understand the trade area analysis and evaluation, selection, store design and layout
Retail 30 19BCME04 Marketing	Gain knowledge on retail pricing strategies	
		Gather knowledge on Globalization of retail formats, Opportunities & challenges related to it.
		Acquire complete concepts and types of business environmernt.

	Understands the factors of economic planning and policies and trends of privatisation and globalisation
	Gather knowledge about socio cultural environment and ethical aspects of business.
Business	Provide enhanced information about political environment and government rules in state intervention.
31 19BCME05 Environment	Acquire complete knowledge about innovation and technical aspects of environment.
	Understand the concepts of working capital, factors affecting working capital management.
	Gather knowledge about management strategies in cash budgeting, control and its disbursement.
	Summarize various credit policy & its control of receivable management of trade credit.
Working	Evaluate the techniques of Inventory Management and its valuation.
Capital 32 19BCME06 Management	Acquire knowledge regarding working capital in Trade credit and Bank Finance.
	Acquire the conceptual knowledge of the International Financial Reporting Standards .
	Have the knowledge of Accounting for Assets and Liabilities.
International	Gather knowledge about theoretical Outline for the Preparation of Financial Statements.
Financial	Understand the concepts of Preparation of Consolidated Financial Statements .
Reporting 33 19BCME07 Standards	Know about the concept of Disclosure Standards Related party disclosure.
	Understand about the theoretical aspects of stock market
	Apply the workings of speculators and investors involved in stock exchange.

Know the various regulations and control over stock exchange Act. Gather knowledge on the latest discourse on practical issues and policies in the new financial environment **Indian Capital** 34 19BCME08 Markets Analyse the information regarding current scenario of stock exchanges It gives insights on branding initially and provides big picture of it. It gives insights on branding initially and provides big picture of it. Understand brand image and brand equity models. Leveraging brands and brand Extension. Brand 35 19BCME09 Management Equip with Brand valuation methods also the issues and challenges. BCOM(Corporate Secretaryship) The area is set to promote and showcase general communication and creativity skills with the learnin potential of students Students should be able to obtain LSRW skills and help to explore knowledge in various genres Realize their responsibility towards the society centre through ehical, social and human values Students should be able to know the facts of environment and society which assist them to hold the values of life To obtain complete knowledge of Finance, Accounting, Taxation, Information Technology, Business law and other. Upgrade the knowledge required for implementing in business

Equip with technical and entrepreneur skills to create innovation in global level

Develop an attitude for working effectively and efficiently in the Competitive environment

Enable to get theoretical and practical exposure in the commercial and Technical sector

PROGRAMME OUTCOME (PO): Acquire complete skill based knowledge and applying in various spheres of Commerce

Serving as bases for Professional programmes such as ACS and CMA.

Create the students well versed in few areas of interest such as Accounting, Labour Legislation, Company

Law and Taxation.

Build in student transcribing skills needed in positions such as Executive Secretary ,Manager and

Administrative Assistant.

To Impart Students in Learning Multi Disciplinary knowledge through Projects and Industrial Training and

providing a sustainable competitive edge in meeting the Industrial needs

PROGRAMME SPECIFIC

OUTCOME (PSO): To gain a strong foundation in different areas of Commerce and Information Technology

Course

S.No Code Course Name Course Outcome

Remember Basic Accounting concepts and transaction, to conceptualize accounting with double entr

system

Determine and Preparing Financial Statements in accordance with appropriate accounting treatment.

Acquiring Knowledge in preparation of Receipts and Payments and Bank Reconciliation statements.

Analyze and apply the treatment of Negotiable Instrument Act

Fundamentals

1 21BCS101 of Accounting Determining and preparing accounting statements in Consignment and Joint Venture.

Identify managerial activities that contribute to managerial effectiveness and recognize the theory of

management

Develop plans with relevant people to achieve the project goals, determine the delegation of authorities

	Management	Obtain the applicability of the concept of organizational dimension
		Demonstrate with various theories regarding directing and decision making in organization
2 21BCS102	Management Concepts	Understand tools and techniques to be used in performance of managerial job.
		To conceptualize the nature of Economics and its relationship to Business operations.
		Understand the demand and supply analysis in business applications
		Determining the Economic concepts of utility/diminishing marginal utility to link the Economic theories.
	Managerial Economics	Construction of the production and cost structure under different Economic stages of production.
3 21BCSA01		Evaluation of Pricing and output decisions in market structure Remember Basic Knowledge on depreciation and its methods, concepts and transaction, to conceptualiz accounting. Determine and Preparing Financial Statements in accordance with appropriate accounting treatment is Single entry and double entry system
	Financial	Acquiring Knowledge of Hire Purchase and Installment System and its accounting treatment Gain practical exposure in operating a branch independently with the knowledge of branch and department accounts.
4 21BCS201		Determining and preparing statement of affairs in Self balancing ledgers.
		Understanding the nature, principles and regulatory frame work of insurance procedure of claiming insurance
		Understand the significance of insurance market structure, LIC Plans , Policies and provisions.

		Law of	Understanding the nature, principles of Property and casualty Insurance, policy serving process.
	5 21BCS202		Identifying various types of risk, factors, evaluation and avoidance.
			Define the organization of computers.
			Discussion of the concepts of input output devices and various number systems.
			Define the structure and fundamental concepts of RAM,ROM and CDROM
		Fundamentals of Information	Demonstrate the structure of database and use of spreadsheets.
	6 21BCSA02		Discuss about the concepts of LAN and WAN.
			Acquiring Knowledge in Admission of partner, Revaluation of assets and liabilities and capital adjustment.
			Ensuring the knowledge in Retirement of a partner, Distribution of Cash and Close the books of the Firm.
		Financial Accounting -II	Ensuring the knowledge in Preparation of statement of affairs and various Deficiency Accounts.
	7 19BCS301		Acquiring Knowledge in Preparation of statement of affairs and various Deficiency Accounts. Ensuring the Knowledge in Fire Claims for Loss of Stock and Normal and Abnormal Los
			Recognize types of contracts, including formation and modification of contracts
			Identify the concepts behind free consent, mistake and misrepresentation
			Understanding the performance of contract.

8 19BCS302	Elements of Business Laws	Recall the features of Sale of Goods Act 1930
		Acquiring Knowledge in Various Kinds of companies and duties and liabilities of company secretary Ensuring the knowledge in Legal procedure of memorandum of association and Articles of association ard different alteration in their contents
		Acquiring Knowledge in various types of prospectus and the secretarial duties.
	Company Law & Secretarial	Understanding the effective transfer and transmission of shares.
9 19BCS303		Gaining Knowledge about Borrowing powers and Registration charges
		To familiarize with the basic concepts and practice of banking To understand the basic concepts and processes used to determine product costs, To be able to interpret cos accounting statements, and To be able to analyze and evaluate information for cost ascertainment,
		To give exposure about Demat and Remat account and the procedures, Rules concerning it
10 19BCS304	Corporate Practice- I	To familiarize the concept of PAN Card and GST and the procedure for registration. Understand the basic concepts and technologies used in the field of management information systems; I aware of the ethical, social, and security issues of information system
		Define the term marketing and explain its role and importance in an individual firm and the overall economy.
		Acquiring Knowledge about product and pricing strategy.
		Analyze advertising and Define personal selling
	SBC I Principles of	Identifying the market segmentation and buyer behaviour.
11 19BCSSBI		Understanding the recent trends in marketing

Acquiring Knowledge in Development of women entrepreneur and rural entrepreneur, characteristics of
entrepreneurship.

Ensuring the knowledge in various Project identification, Report and Business Idea.

Gaining Knowledge about the parameters to assess opportunities and constraints for new business ideas

SBC I

Gaining Knowledge about Institutional services and finance to entrepreneurs.

Entrepreneurial

12 19BCSSB2 Development Understanding the Incentives and subsidies and Small Scale Industry.

Ability to identify and use the elements of multimeida

Able to identify the concepts of audio

Understand the concept of animation

EDC:

19BCSED1 Multimedia

Understand the types of multimedia

13

Understand the types of morphing

Enabling the students to understand the features of Shares and Debentures and Understand the treatmen regarding issue of bonus shares and treatment of prior period profits

Develop an understanding about redemption of Preference Shares, methods of Underwriting.

To provide knowledge on Redemption of Debentures and methods of Interest quotations

:To give an exposure on Goodwill and to calculate the value of Goodwill and shares to the company

Corporate

14 19BCS401 Accounting-I

Develop knowledge on drafting Final Accounts of Companies, and Profits prior to incorporation. Acquiring Knowledge in provisions of Companies Act relating to meetings, resolutions and Compar Management

		Ensuring the knowledge in manager and managing director duties and liabilities.
	Company Law and Secretarial	Understanding the auditors qualification and appointment and various types of circulation and filing.
		Gaining knowledge about Power of Board of Directors Regarding Dividend and IEPF.
15 19BCS402		Acquiring Knowledge in Companies act relating to winding up, Liquidator and National law Tribunal.
		Understanding the Indian Constitution
		To familiarize in Transfer of Property Act.
	General Law	Understanding the procedure of registration of document.
		Acquiring Knowledge in Stamp Act and the consequences of non registration.
16 19BCS403		To get the exposure in Right to Information Act 2005.
		To familiarize with the concept relating to SSI and practical procedures relating to formation of SSI
		To understand the concepts of partnership and procedures for registration
		Demonstrate comprehensive and accurate knowledge and understanding of those areas of company law.
17 19BCS404	Corporate Practice -II	To make aware on the concept of Director Identification Number (DIN).
		To demonstrate the complete procedures AND laws relating to EXIM.
		Understanding the various types of communication.
		To familiarize in various business correspondence.

To get the exposure in bank, Insurance, corporate secretary correspondence

18 19BCSSB3	SBC II Corporate Communication	Identifying various types of report and its importance. To gain knowledge in Management Information System Explain the importance of human resources and their effective management in organizations and To be aware of the role, functions and functioning of human resource department of the organizations. Nature and use of Job analysis information, Steps in job analysis, Methods of Collecting Job analysis Information, Writing job descriptions and job specifications.
19 19BCSSB4	SBC II Human Resource Management	To Design and formulate various HRM processes such as Recruitment, Selection, Training. Development ,Performance appraisals and Reward Systems, Compensation Plans and Ethical Behavior and Design a performance appraisal and a reward system for the organization To acquire knowledge about various Labour Laws, Responsibilities and rights of Employers and Employees Enable the students to understand about amalgamation, absorption and external reconstruction
20 19BCS501	Corporate Accounting-II	To make them aware about accounts of banking companies Keep them aware about accounts of insurance companies Enable the students to gain an idea of liquidation of companies To introduce and develop knowledge of holding companies accounts Acquiring the familiarization of the concept of cost accounting Facilitating the idea and meaning of material control with pricing methods Developing the knowledge about remuneration and incentives

	Cost Accounting	Helps to gather knowledge on workings of process costing
21 19BCS502		To acquire the knowledge on the concept of job, contract and operating cost
		Understand the laws relating to Factories Act
		Toenlighten the concept of Industrial disputes Act
		Acquiring the knowledge on the basic concept of Employees compensation Act
	Industrial and	To make them aware about Payment of Wages ACT
22 19BCS503	Labour Laws	Acquiring the idea on Trade Unions Act and Employees Provident Fund Act.
		To understand the concept of Corporate Governance
		Describing the concept and Roles of the Board.
		Helps to gather knowledge on Company and Secretarial Audit
		Acquiring an overview on E-Governance and Corporate restructuring
23 19BCS504	Corporate Governance	Creating the awareness about Corporate Social Responsibility
		Helps in preparing documents in MS.Word and various alignment procedure
		Demonstrate the creation of tables and charts and various other functions in Ms.Excel
		To Design the slides and charts in MS.Powerpoint
	IDC Lab I Ms	Helps to create different database in Ms asscess

24 19BCSP01	Office and Tally	Develop a knowledge about creation of companies and Working with tally
		To introduce the basic concept of Income Tax
		In order to familiarize the different know-how and heads of income with its components
		It helps to build an idea about income from house property as a concept
		Toenlighten the concept of income from other source
25 19BCSE01	Taxation I	To determine the concept of assessment of individual
	Financial	Aiming to enable the students to get the Know-how of Financial Management in its Wide aspects
		Create an interest in investment habit keeping its wide scope Familiarize the concept of lease financing venture Capital and Mutual Fund Introduce the concept of Capita Theories
		Familiarize the concept of Working Capital
26 19BCSE02		In order to equip the students with details about foreign collaboration and multinational corporate Demonstrate the applicability of the concept of organizational behavior to understand the behavior of peopl in the organization. Demonstrate the applicability of analyzing the complexities associated with management of individu behavior in the organization.
		Analyze the complexities associated with management of the group behavior in the organization.
	Organisational	Demonstrate how the organizational behavior can integrate in understanding the motivation
27 19BCSE03	-	To provide the students to analyse specific strategic human resources demands for future action

		To Understand the practical exposure of manufacturing concern
		To obtain knowledge about different departments activities
		To gain knowledge on auditing Practice and procedures
	Institutional	To understand the efficiency and utilisation of time management
28 19BCSITI	Training	To make the students to gain more knowledge on group behaviour Demonstrate the applicability of the concept of Accounting to understand the managerial Decisions an financial statements Apply the Financial Statement Applying associate with Financial Details the appropriation and Calculate
		Apply the Financial Statement Analysis associate with Financial Data in the organization and Calculat various accounting ratios, reports and relevant data Prepare Cash Flow and Funds Flow statements this helps in planning for intermediate and long-terr finances.
29 19BCS601	C	Develop and apply standards and budgets for planning and controlling purposes. Analyze cost-volume-profit techniques to determine optimal managerial decisior
		Encourage to know competition Act and its regulation
		Acquire knowledge on Environmental Laws
		Enhance the concept of Foreign exchange management Act
	Corporate&	Demonstrating competency with the use of Intellectual Property Rights
30 19BCS602	-	Develop an awareness of the Consumer Protection Act.
		Understand the Financial and money market

		Toenlighten the concept of Securities regulation Act 1956
		To introduce the basic concept of intermediaries and their roles
	Securities Law and Financial	To make them aware about SEBI and Mutual Fund
31 19BCS603		Describe the concept of Depositories Act 1996
		To define various types of taxation and overview of Goods and service tax.
		Acquiring the knowledge on the conditions and restriction of Supply
19BCSE04		To define the evaluation of ITC and its utilization
1)DCSL04	Taxation - II	To acquire the knowledgeon IGST
32		Able to understand Custom duty and its levy and exemptions
		Understanding about the Factors Influencing Investments
		Helps to give proper idea of Capital Market and Stock Exchange in India
		Helps to give proper idea of Preference and Equity Shares and LIC
	Investment	Acquiring knowledge about Fundamental and Technical Analysis and Evaluation
33 19BCSE05		Acquiring knowledge about Portfolio Analysis and Management
		Understanding the firms involved in management
		Analyzing and Summarize the key challenges facing retailers

Understanding	the overall	I change in	the structure	of the n	rofit p	lanning	and budgeting pro	ocess

34 19BCSE06	Retail Business Management	Acquiring knowledge on operational dimension and computerization outsourcing Helps to face the social responsibility and ethical values Understand the audit process from the engagement planning stage through completion of the audit, as well; the rendering of an audit opinion via the various report options understand to describe the various levels of persuasiveness of different types of audit evidence and explait the broad principles of audit sampling techniques
		Learn to explain the rights and duties of auditor
	Auditing Practice and Principles	Learn to Determine the appropriate audit report for a given audit situation and develop audit plan
35 19BCSE07		Helps to understand recent trends in Auditing
		Understand the meaning and concepts of working capital Management and new trends in working capital. Evaluate working capital effectiveness of a company based on its operating and cash conversion cycles and compare the company's effectiveness with that of peer companies. Evaluate a company's management of accounts receivable, inventory, and accounts payable over time an compared to peer companies.
	Working	Identify and evaluate the necessary tools to use in managing a company's net daily cash position
36 19BCSE08	Capital Management	Evaluate the choices of short-term funding available to a company and recommend a financing method.
		Understanding the concepts related to Business.
		Demonstrating the Industrial Polices and regulations
		Analyzing effective application of economic system and economic planning

	Business Environment	Understand ing the complexities Technological environmental factors
37 19BCSE09		Integrate the learning in handling the complexities like Globalisation of Indian Business, Demerits of MNCs
		To acquire practical knowledge on the implementation of perceptions studied through the programme.
		practical exposure in the Project work, knowledge which will equip the students in Research work.
		acquire practical knowledge on the implementation of the programming concepts studied.
	Project and	acquire knowledge on framing of objective and defining the problem
38 19BCSPR1	•	Practical exposure on presenting the project
B Com Information	n Technology	The area is set to promote and showcase general communication and creativity skills with the learnin potential of students
		Students should be able to obtain LSRW skills and help to explore knowledge in various genres
		Realize their responsibility towards the society centre through ehical, social and human values Students should be able to know the facts of environment and society which assist them to hold the values of life To obtain complete knowledge of Finance, Accounting, Taxation, Information Technology, Business law and other.
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system

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Acquiring Knowledge in preparation of Receipts and Payments and Bank Reconciliation statements.

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Financial

1 21BCI101 Accounting Determining and preparing accounting statements in Consignment and Joint Venture.

Determining the layout to achieve desired formatting and calculations for accurate workbook design.

Discussion of the concepts of design templates, text slide layout, transitions, and clip art in PowerPoint.

Define the structure and fundamental concept of C programming.

	Introduction to Information	Demonstrate various decision making statements.
2 21BCI102	Technology	Construct program using functions, structures and union.
		To conceptualize the nature of Economics and its relationship to Business operations.
		Understand the demand and supply analysis in business applications
		Determining the Economic concepts of utility/diminishing marginal utility to link the Economic theories.
	M : 1	Construction of the production and cost structure under different Economic stages of production.
3 21BCIID1	Managerial Economics	Evaluation of Pricing and output decisions in market structure Remember Basic Knowledge on depreciation and its methods, concepts and transaction, to conceptualiz accounting. Determine and Preparing Financial Statements in accordance with appropriate accounting treatment is Single entry and double entry system.
	Financial	Acquiring Knowledge of Hire Purchase and Installment System and its accounting treatment Gain practical exposure in operating a branch independently with the knowledge of branch and department accounts.
4 21BCI201	Accounting II	Determining and preparing statement of affairs in Self balancing ledgers.
		Determining the layout to achieve desired formatting and calculations for accurate workbook design.
		Discussion of the concepts of design templates, text slide layout, transitions, and clip art in PowerPoint.
		Define the structure and fundamental concept of C programming.
		Demonstrate various decision making statements.

5 21BCIP01	Information Technology	Construct program using functions, structures and union.
	Principles of	Acquire basic concepts of market, Marketing, Selling, Modern Marketing Function and process. Understand the Concept of Product and Price mix, application of Pricing policies, and methods of Pric determination. Have a comprehensive knowledge on Channel of distribution of goods, personal selling and advertising Functions of middlemen and Sales promotion programme. Analyze the organisational structure of Marketing, Marketing Segmentation, Buying Behaviour Process an Models.
6 21BCIA02	Marketing	Impart skill on Recent trends in Marketing and Market Research.
		Acquiring Knowledge in Admission of partner, Revaluation of assets and liabilities and capital adjustment.
		Ensuring the knowledge in Retirement of a partner, Distribution of Cash and Close the books of the Firm.
		Ensuring the knowledge in Preparation of statement of affairs and various Deficiency Accounts.
7 19BCI301	Core 4 Financial Accounting-III	Acquiring Knowledge in Preparation of statement of affairs and various Deficiency Accounts. Ensuring the Knowledge in Fire Claims for Loss of Stock and Normal and Abnormal Los
		Demonstrate Data Communications System and its components.
8 19BCI302	Core 5 Networking Management	Summarize functionalities of different Layers and Networking Literature Identify and Analysis of basic protocols of computer networks, and how they can be used to assist in network design and implementation Identify and Analysis of basic protocols of computer networks, Identify the development and history or routing Protocols. Identify and Analysis of basic protocols of Business networks, and how they can be used to assist in networ design and implementation.

		Understand the object oriented program concepts and data types in C++
		Understand the parts of functions and types of functions such as friend function and static function
	Core 6 Programming With C++	Ability to know about the operator overloading and types of inheritance.
		Ability to demonstrate the use of polymorphism and virtual functions
9 19BCI303	[Theory]	Understand the types of file stream classes and use of templates
		Provides a thorough introduction to the C++ programming language
	Core Lab 2	Understand basic structure of the C++ Programming ,declaration and usage of variables
	Computer Application	Write C++ programs using constructors and destructors and inline functions.
	Practical's	Write C++ programs using operators and perform operator overloading.
10 19BCIP02	[C++]	write C++ programs using concepts of files.
		Understanding the various types of communication.
		To familiarize in various business correspondence.
	SBC I Corporate Communication	To get the exposure in bank, Insurance, corporate secretary correspondence.
10DCICD1		Identifying various types of report and its importance.
11		To gain knowledge in Management Information System.
		Understand the concept of E-Business and describe the types of e-commerce

		Understand the concepts of intranet, extranet and working of Electronic data interchange
	SBC I E- Business	To understand and identify security issues of E-Business
19BCISB2		Able to handle electronic payment technology and requirements for internet based payments
12	L- Dusiness	Understand the concept of WEB Based Business and advertising
		Ability to identify and use the elements of multimeida
		Able to identify the concepts of audio
		Understand the concept of animation
	EDC : Multimedia	Understand the types of morphing
19BCIED1		Understand the types of morphing Enabling the students to understand the features of Shares and Debentures and Understand the treatmen regarding issue of bonus shares and treatment of prior period profits
		Develop an understanding about redemption of Preference Shares, methods of Underwriting.
		To provide knowledge on Redemption of Debentures and methods of Interest quotations
		To give an exposure on Goodwill and to calculate the value of Goodwill and shares to the company
14 19BCI401	Core 7 Corporate Accounting	Develop knowledge on drafting Final Accounts of Companies, and Profits prior to incorporation.
		Acquiring Knowledge in Various Kinds of companies and duties and liabilities of company secretary Ensuring the knowledge in Legal procedure of memorandum of association and Articles of association are different alteration in their contents

		Acquiring Knowledge in various types of prospectus and the secretarial duties.
(Core 8 Company Law & Secretarial Practice	Understanding the effective transfer and transmission of shares, Share Warrants
		Gaining Knowledge about Borrowing powers and Registration charges
		Able to describe data models, schemas and architecture of DBMS
		Acquiring knowledge about the working of relational algebra operators and types of keys in DBMS
		Gaining knowledge about the types of normalization
	Core 9	Able to understand the structure of hierarchical database
	Database Management System	understanding the structure of network database
16 19BCI403		Describe the basic queries to create table, insert values into the table and display the values from the table
		Explain the basic working of update queries
		Explain the basic concepts of working of sub queries and nested queries
	Core Lab 3	Design table with primary key and foreign key constraints
17 19BCIP03	Database Management System Lab	Familiar with basic concepts of creation of views.
		To familiarize with the basic concepts and practice of banking To understand the basic concepts and processes used to determine and to interpret cost accountin; statements, and to evaluate information for cost ascertainment, planning, control and decision making
		To give exposure about Demat and Remat account and the procedures, Rules concerning it.

19BCISB3	SBC II Commerce Practical	To familiarize the concept of PAN Card and GST and the procedure for registration. Understand the basic concepts and technologies used in the field of management information systems; I aware of the ethical, social, and security issues of information system
18		Ensuring the knowledge in objectives and functions of management.
		Acquiring Knowledge in recruiting, selecting retail personnel and supervision.
		Understanding Financial dimensions and ongoing budgeting process.
		Gaining Knowledge about computerization and outsourcing.
10DCISDA	SBC II Brand	Ensuring the knowledge in ethical values in relation to customers
19	Management Management	Acquiring the familiarization of the concept of cost accounting
		Facilitating the idea and meaning of material control with pricing methods
		Developing the knowledge about remuneration and incentives
		Helps to gather knowledge on workings of process costing
	Core 10 Cost Accounting	To acquire the knowledge on the concept of job, contract and operating cost
20 19BCI501		To introduce the basic concept of Income Tax
		In order to familiarize the different know-how and heads of income with its components
		It helps to build an idea about income from house property as a concept
		Toenlighten the concept of income from other source

	Core 11	To determine the concept of assessment of individual
21 19BCI502	Taxation -I	Recognize types of contracts, including formation and modification of contracts
		Identify the concepts behind free consent, mistake and misrepresentation
		Understanding the performance of contract Recall the features of Sale of Goods Act 1930 Identify the fundamental legal principle behind contractual agreements
	Core 12 Legal Business	Acquire problem solving techniques and to be able to present coherent, concise legal argument
22 19BCI503	Concepts	To understand the concept of VB Applications and Integrated Development Environment
		To understand about the variables and data types used
		To understand about standard Controls and various controls in Visual Basic
	Core 13	To provide knowledge about Control Arrays.
	Software	To provide knowledge about Data Access objects and Reports.
23 19BCI504	Development In Visual Basic	To Understand the concept of VB Environment and Perform Small Programs
		Develop Menu based programs for Text manipulation
		Develop a Graphical User Interface (GUI) based on problem description
	Core Lab 4 Software	Develop the applications using Data Grid for displaying records.
		To provide knowledge aboutMDI form creation

24 19BCIP04	Visual Basic Lab	Explain the concept of ecommerce and its revolution
		Explain and develop solutions for implementing an ecommerce site
		: Be aware of the ethical, social, and security issues of information systems;
19BCIE01		: Implement, in simulation or authentically, an ecommerce site. Explain the infrastructure of the Internet and how the various elements contribute to marketing distributio solution
25	E-Commerce	Aiming to enable the students to get the Know-how of corporate finance in its wide aspects
		To create an interest in investment habit keeping its wide scope
		To familiarize the concept of lease financing venture Capital and Mutual Fund
		To introduce the concept of Capital Market
26 19BCIE02	Corporate Finance	In order to equip the students with details about foreign collaboration an multinational corporates Demonstrate the applicability of the concept of organizational behavior to understand the behavior of peopl in the organization. Demonstrate the applicability of analyzing the complexities associated with management of individu behavior in the organization.
		Analyze the complexities associated with management of the group behavior in the organization.
		Demonstrate how the organizational behavior can integrate in understanding the motivation
	Organizational	To provide the students to analyse specific strategic human resources demands for future action
27 19BCIE03	Behavior	To Understand the practical exposure of manufacturing concern

		To obtain knowledge about different departments activities
		To gain knowledge on auditing Practice and procedures
		To understand the efficiency and utilisation of time management
28 19BCIIT1	Institutional Training	To make the students to gain more knowledge on group behaviour Demonstrate the applicability of the concept of Accounting to understand the managerial Decisions an financial statements Apply the Financial Statement Analysis associate with Financial Data in the organization and Calculat various accounting ratios, reports and relevant data Prepare Cash Flow and Funds Flow statements this helps in planning for intermediate and long-terr finances.
	Core 14	Develop and apply standards and budgets for planning and controlling purposes. Analyze cost-volume-profit techniques to determine optimal managerial decisior
29 19BCI601	Accounting for Management	To understand the concept of protocols used in internet.
		Use a stand-alone FTP program to upload files to a web server.
		Understand the principles of creating an effective web page
		Helps to give proper idea on table creation and formatting of fonts.
		To understand about forms and frames tag in HTML.
30 19BCI602	Core 15 HTML	Remember the internet related concepts that are vital in understanding web development
		To Understand the concept of HTML list and link tag.

		Understand the important HTML tags for designing
		To Develop interactive web applications through coding using HTML
	Core Lab 5	Helps to give proper idea on html forms and frames tag.
31 19BCIP05	[HTML Lab]	Aiming to enable the students to get the Know-how of Financial Management in its Wide aspects
		Create an interest in investment habit keeping its wide scope Familiarize the concept of lease financing venture Capital and Mutual Fund Introduce the concept of Capita Theories
19BCIE04		Familiarize the concept of Working Capital
I)Beile	Financial	In order to equip the students with details about foreign collaboration and multinational corporate
32	Management	To enlighten the students about the software Development Life Cycle models
		Helps to give proper idea of software planning and scheduling
		Helps to give proper idea of software Team Organization
		To understand the process of Software Quality Assurance and Configuration Management
	Software Engineering	Helps to how to tackle the risks associated with development of software
		To understand the concept of Corporate Governance
		Describing the concept and Roles of the Board.
		Helps to gather knowledge on Company and Secretarial Audit

		Acquiring an overview on E-Governance and Corporate restructuring
	Corporate	Creating the awareness about Corporate Social Responsibility
34 19BCIE06	•	Understand the concept of Various Line Drawing Algorithms
		Helps to gather knowledge on 2D Geometrical Transformations
		Describing the concept of Various Color Models.
		Acquiring an overview on Components of Multimedia.
	Multimedia &	Creating the awareness about Multimedia Communication Systems.
35 19BCIE07		To understand about the Factors Influencing Investments
		Helps to give proper idea of Capital Market and Stock Exchange in India
		Helps to give proper idea of Preference and Equity Shares and LIC
		To provide knowledge about Fundamental and Technical Analysis and Evaluation
	Investment	To provide knowledge about Portfolio Analysis and Management
	Investment Management	Understand the meaning and concepts of working capital Management and new trends in working capital. Evaluate working capital effectiveness of a company based on its operating and cash conversion cycles and compare the company's effectiveness with that of peer companies. Evaluate a company's management of accounts receivable, inventory, and accounts payable over time an compared to peer companies.
		Identify and evaluate the necessary tools to use in managing a company's net daily cash position

	Working Capital	Evaluate the choices of short-term funding available to a company and recommend a financing method.
	Management	To Understand the problem and defining the tiltle of the projects
		To obtain knowledge about framing questionnaire and hypothesis
		To gain knowledge on various tools and procedures of sampling
38 19BCIPR1	Project and Viva Voce	To understand the efficiency and utilisation of time management To make the students to gain more knowledge on group behaviour and to arrive findings suggestion an conclusion
B COM (CA)		
		The graduates will be able to Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws an other
		Equip with professional, inter personal and entrepreneurial skills.
		Gear up with updated knowledge in implementing business practices
		Evaluate environmental factors that influence business operation.
PROGRAMME OU	JTCOME (PO):	Create the students well versed in few areas of interest such as Accounting, Taxation, Auditing, Softwar
		Developer, Software Application and Web Designer Students will demonstrate that they can present the results of their observations and research in a way that i objective, technically accurate, and legally acceptable
PROGRAMME SP OUTCOME (PSO):		Students will use effective technology appropriately, such as PowerPoint, slides, posters, handouts, and transparencies in oral presentations.

s.No	Course Code	Course Name	Course Outcome
		Define book keeping and accounting	
			Decribe the elements of financial accounting information - assets, liabilities, revenue and expenses
			Explain general purposes and functions of accounting
			Identify the main financial statements and their purposes.
	1 21BCC101	Financial Accounting –I	Knowledge about finalizing the accounts of a company.
			Know the basic components of the computer and working of each device
			Understand the representation of data in a computer
			Describe the reason why different decision making and control structures.
	2 21BCC102	Office Automation C Programming	Demonstrate algorithms to solve simple programming problems using loops and arrays
			Develop C programs for data stucture concepts with functions
			Identify the sources of economic value.
		Managerial Economics	Create new market opportunities through differentiation
			Understand the mechanisms of and competitions and their business
	3 21BCCA01		Anticipate future market trends and dynamics
			Describe the concept depreciation, reserve and provisions

		Ascertainment of Profit in Single entry System
	Financial Accounting –II	Knowledge about Self balancing ledger accounts
		Explain the Accounting Treatment in Hire purchase and Instalment System
4 21BCC201		Describe the concept of Branch accounts
		Evaluate approaches to addressing issues of diversity
		Determine the most effective action to take in specific situations
		Integrate management principles and management practices
5 21BCCA02	Principles of Management	Assess global situation , including opportunities and threats that will impact management of an organistion Specify how the managerial task of planning organizing , and controlling can be executed in a variety α circumstances.
		Solve the problems, present the ideas, write the letters and etc using MS office package
		Design algorithms and flow charts
	Office Automation C Programming Lab	Understand the fundamentals of Cprogramming
		Choose the loop and decision making statements to solve the problem
6 21BCCP01		Understand file operations in C programming for a given applications
		Determine the adjustment in admission of new partner
		Explain the Accounting Treatment in retirement of partner

Modes of Dissolution of Partnership firm

Concept of Insolvency of partners

Financial

7 19BCC301 Accounting –III Describing about the insolvency of Individual and partnership firm

Understand how organizations identify customers and their wants/needs.

Apply key frameworks and methods, and develop analytical skills to solve marketing problems.

Provide with a firm foundation in marketing Concept

Principles of 8 19BCC302 marketing

Relate the impact of marketing and its integration with own major or field of interest. Comprehend marketing decisions, based upon the combination of product, price, promotion, and distribution elements.

Understand how C++ improves C with object-oriented features.

Describe the object-oriented programming approach in connection with C++

Understand the features of C++ supporting object oriented programming

Understand the relative merits of C++ as an object oriented programming language

Programming 9 19BCC303 in C++

Understand how to create files using C++

Apply the concepts of object-oriented programming

Manipulate objects

Implement advanced use of arrays in C++ programming.

10 19BCCP02		Programming Lab in C++ and TALLY Lab	Acquire knowledge about creating a company and preparing Trial Balance of a company using Tally Apply virtual and pure virtual function & complex programming situations
			Providing a strong foundation in fundamental accounting concepts and conventions
			providing practical knowledge accounting process with practical examples and entries in Tally
			Gives the knowledge about the growth perspectives of economy
			The wider understanding about taxation system and procedures of the state
	11 19BCCSB1	Tally and GST	Enhance the knowledge of technical aspects of Tally
		·	Identify the fundamentals needs and importance of maintaining a good customer relationship
			Understand the customer relationship management concepts, techniques and strategies
	12 19BCCSB2	Customer Relationship Management	Elucidate the students with the successful framework of CRM and its implementation in an organsation Analyse the customer satisfaction by implementing CRM practices, strategies and techniques thereby, t retain customers as well as to achieve long term profitability Use strategic customer acquisition and retention techniques in CRM with an introduction of CRM softwar packages
			Understanding the meaning and growth, necessity of Human Resource management
			Competency to recruit, select, train and appraise the performance of employees
		Human	Rational design of compensation and salary administration
13 19BCCOE1		Resource Management	Knowledge about industrial disputes and Grievance redressal procedures.

		Understanding the practical exposure of manufacturing concern
	Corporate Accounting	Obtaining knowledge about different department's activities
		Gaining knowledge on auditing Practice and procedures
		Understanding the efficiency and utilisation of time management
14 19BCCPR1		Enabling the students to gain more knowledge on group behaviour A comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner equity.
		an understanding of the accounting requirements for a corporate group.
		An understanding of the regulatory environment in which the companies are formed and operate in India.
15 19BCC401		The ability to prepare consolidated accounts for a corporate group. an understanding of the accounting requirements and familiarity with the theory underlying the method used to account for inter-company investments.
		Understand the scope, sources and growth of mercantile law
		Understand about the Indian contract act 1872.
		Understand the Law relating to sale of goods, Contract of Agency
16 19BCC402		Understand the law relating Negotiable instruments such as Bills, Promissory note and Cheques
		Describe data models and schemas in DBMS
		Design ER-models to represent simple database application scenarios

		Build indexing mechanisms for efficient retrieval of information from a database
	Database Management System	Understand the features of database management systems and Relational database
17 19BCC403		Uses of SQL-the standard language of relational databases
		Understand the concept of Transaction and Query processing
		Analyze the database using queries to retrieve records
		Populate and query a database using SQL DML/DDL commands
	Database Management System Lab	Define, develop and process single entity, 1:1, 1:M, and M:M database tables
18 19BCCP03		Design and implement a database schema for a given problem-domain
		Understand about basics of multimedia and various multimedia tools
		Apply the various text format using front editing and design
		Understand the concepts of MIDI with various projects
	Introduction to	Analyse the audio and video formats to display the digital video
19 19BCCSB3		Apply the various images with colours for animations
		Able to understand basic principles of psychology
		able to understand major concepts, different perspectives of psychology
		Understand the psychological way of thinking

	Human psychology	to understand role of biological base in human behaviour
20 19BCCSB4		to develop comprehensive understanding of inter disciplinary issues and aspects of society
		Explains the purpose of cost accounting
		Defines the concept of cost, expense, loss and revenue
	Income tax law and practice Entrepreneurial	Calculate inventory cost according to the inventory valuation techniques
		Explain cost from the view point of the relationship with cost centers
21 19BCC501		Calculate Labour cost using various methods.
		Able to describe provisions in the corporate tax in the laws can be used for tax planning.
		Able to explain different types of income and their taxability and expenses and their deductibility.
		Able to learn various direct taxes ansd their implications in practical situations.
22 19BCC502		Able to state the use of various deductions to reduce the taxable income.
		Able to understand the rebates available under the act. Enable the students to learn the fundamentals of being a good entrepreneur and the Concept c entrepreneurship, Knowledge about the financing institutions, project report
		Create awareness about the the institutional finances available for entrepreneurs
23 19BCC503 E		Explain the subsidies granted by the government for the budding and existing entrepreneurs
		Understand the process of project identification, formulation, and preparing a project report

Understand .NET Framework and describe some of the major enhancements to the new version of Visus Studio.

Describe the basic structure of a Visual Basic.NET project and use main features of the Integrated Development Environment (IDE).

Create applications using Microsoft Windows® Forms.

Create applications to use ADO. NET.

Visual Basic.

24 19BCC504 Net Appling Result Using Crystal Reports.

Working various VB.Net Controls.

Handling Mouse Events in Forms.

Debugging VB .NET Applications.

Working with Multiple Forms and MDI Applications.

Visual Basic .

25 19BCCP04 Net Lab

Working with Menus and Common Dialogs Date Time Picker, Month Calendar, Splitter Using the Statu

Ba

Understand the commercial banking system and structure

Decvelop better understanding on different types of deposits, their benefits etc

Know the procedural formalities in dealing with different types of customers

Familiar with the basic principles of insurance

Banking and

26 19BCCE01 Insurance Law Demonstrate the characteristics of life and General Insurance

Recognize carrier oippurtunities in available in Retail business

Know the	procedures	on Setting	un a Retail	Organization
MIOW LIC	procedures	on seming	up a ixciaii	Organization

		Retail Business	Know the procedures on Setting up a Retail Organization
	Understand the Ethical Values in relation to Customers, Community & Shareholders , General public .		
2	27 19BCCE02		Know about Profit Planning, Preliminary Budget Decisions and Ongoing Budgeting Process.
			To understand and demonstrate writing and speaking processes through invention and presentation. To understand the importance of specifying audience and purpose and to select appropriate communicatio choices
		Comorato	To develop the ability to research and write a Report
2	Corporate 28 19BCCE03 Communicati		To be effectively in writing minutes and on perparing agenda
			To Understand the problem and defining the tiltle of the projects
		Research Project	To obtain knowledge about framing questionnaire and hypothesis
			To gain knowledge on various tools and procedures of sampling
2	29 19BCCPR2		To understand the efficiency and utilisation of time management
			Explain the importance of management accounting for business
			Analyzes the relationship betweeen the cost volume and profit
			Defining budgeting and operating budget concept
	30 19BCC601	Management	Explains break-even sales price, contribution, margin of safety and profit margin concept.
3			Describes determination of standard cost.

Understand the functions of each layer in OSI and TCP/IP model.

Understand the types of transmission media with real time applications.

Design a responsive Website and Implement interactive web page(s).

Demonstrate Rich Internet Application.

Web Designing

31 19BCC602 and Networking Describe and differentiate different Web Extensions and Web Services.

To get familiar with basics of the Internet Programming.

To acquire knowledge and skills for creation of Website.

To gain ability to develop responsive web applications.

Web Designing To explore different web extensions and web services standards. and Networking

32 19BCCP05 Lab

Understand data link concepts designing with Forms and frames.

Provide analytical tools to understand opportunities in unserved or under served new economy market

Provide guiding principles behind the design and strategy of the customer web interface.

Provide insights on how to implement in the new economy

understand the fundamentals of financially valuing new economy companies

Provide a fundamental understanding of the different types and key component on business models in tl

33 19BCCE04 E-Commerce new economy.

Explain about the relationship between international trade and domestic trade, its developments.

		Study about the theory and practice of International trade of Trade related policies.
34 19BCCE05	Principles of International	Provide students with a thorough grounding in the theory of international trade.
		Undertand the meaning, importance and benefits of Multi National Corporation
		Educate the students about Investments and influencing factors
		Know about functioning of stock exchanges
	Investus aut	Know about the Shares and Mutual Funds
35 19BCCE06	Investment Management	Know about Trading mechanism and Role of SEBI
		Explain the purpose and context of external audit and other assurance engagements
		Expalin the principles of good corporate governance and application of professional and ethical codes.
	Principles of Auditing	Expalin the nature of internal audit and its relationship with external audit.
		Demonstrate an auditor's plan to audit as per international standards of auditing.
36 19BCCE07		Evaluate the findings of the audit and assess their potential impact on auditor's report.
		Analyse the expanding environment of Media and communication techniques
		Develop creative strategies for advertising
		Plan media strategy, scheduling and vehicle selection
37 19BCCE08	Sales Promotion	Assess strategies and uses of sales promotions

Acquire basic understanding of brands and its significance, Various types Know about brand ambassadors, Brand extension, brand positioning and brand image building Undertand Brand rejuvenation and re-launching of brands Brand 38 19BCCE09 Management Understand Designing and implementing branding strategies To Understand the problem and defining the tiltle of the projects To obtain knowledge about framing questionnaire and hypothesis To gain knowledge on various tools and procedures of sampling To understand the efficiency and utilisation of time management To make the students to gain more knowledge on group behaviour and to arrive findings suggestion an Project and 39 19BCCPR3 Viva Voce conclusion B.COM (PA) The area is set to promote and showcase general communication and creativity skills with the learnin potential of students. Students should be able to obtain LSRW skills and help to explain knowledge in various genres. Realize their responsibility towards the society centre through ethical and social and human values. Students should be able to know the facets of environment and society which assist them to hold the value of life.

Ability to acquire the knowledge in the field of Finance, Accounting, Taxation, Business law and other laws.

Gaining the professional skills and entrepreneurial skills to face the challenges of the corporate world.

An understanding of Professional and Ethical Responsibility.

Develop the insights of students on changes in business practices.

A recognition of the need for and an ability to engage in Life –long Learning.

Graduates will attain and exhibit skills to work as team to take effective decision in achieving the commc

PROGRAMME OUTCOME (PO):

Enables the students to prove proficiency with the ability to engage in competitive exams like CA, CS

ICWA and other course.

The graduates will be able to apply the accounting knowledge and expertise to add ethical values of busines

in efficient decision making.

Graduates will able to think innovatively and convert challenges into opportunities as an employer in the

professional field, eventually providing solution for the betterment of society.

Prepare them for updating knowledge continuously based on their chosen professional career through lit

long independent learning committed to ethical and social responsibilities pertaining to the professional Graduates of the programme will be able to acquire practical knowledge to work as a tax Consultant, Audi

assistant and other financial supporting services.

PROGRAMME SPECIFIC OUTCOME (PSO):

Course

S.No Code Course Name

Course Outcome

Remembering the Basic Accounting concepts and conventions and understanding the Accounting Standards Preparing Financial Statements in accordance with appropriate standards and BRS from incomplete statement

Apply the accounting practices for Bill of exchange and Account current

Analyse the accounting treatment in preparation of consignment and joint venture accounts
Fundamentals Gaining Knowledge in preparation of Receipts and Payments, Income and Expenditure account and Balanc
1 21BCP101 of Accounting-I sheet for Non- Profit Organisation.

Gain knowledge about the basic principles and functions of management.

		Develop plans with relevant people to achieve the project goals, determine the delegation of authorities
	D: :1 6	Obtain the applicability of the concept of organizational dimension
		Demonstrate with various theories regarding directing and decision making in organization
2 21BCP102	Principles of Management	Understand tools and techniques to be used in performance of managerial job.
		To Create funds for replacement of Assets
		Preparing Accounts from incomplete records
		Introducing the system of Hire Purchasing and Installment
3 21BCP201	Fundamentals of Accounting- II	Familiarizing the concept of Branch account and its system and departmental Accounting system Gaining knowledge about International Financial Reporting Standard and International Accountin Standards
		Remembering provisions relating to the Indian contract act 1872
		Analyse the conditions for performance of the contract and breach of contract
		Familiarizing Special Contracts
	Business Law	Apply various provisions regarding the Sale of Goods Act 1930
4 21BCP202		Understanding the concept Limited Liability Partnership Act, 2008
		Understanding the concept of partnership and Admission of partner and calculating the Ratios.
		Preparing financial accounts for partnership firms in case of retirement and death.

		Employing critical thinking skills to understand the difference between the dissolution of the firm ar dissolution
	Advanced	Gaining knowledge in preparing the financial accounts for Insolvency Accounts
5 19BCP301	Accountancy	Familiarizing the concept of Voyage Account.
		Understanding the formation and kinds of companies.
		To acquire knowledge on documents of the company
		Acquiring knowledge on basic documents in a company and various methods of raising of capital.
	Company Law and Secretarial Practice	Examining the provisions of Companies Act relating to meetings, resolutions and Company Management
6 19BCP302		To learn about law relating to winding Up of the company
		Understanding and explain the conceptual framework of banking
		Classifying and Demonstrate the types of Accounts, deposit and describing the role of RBI.
	Practical Banking	Acquiring knowledge on Negotiable instruments
		Illustrating the various electronic payment methods
		Giving Hands on training relating to Banking
		Understanding the roles of managers in firms
		Analyzing the demand and supply conditions and assess the position of a company
		Familiarizing the concept about production and law of variable proportions
		Tammanzing the concept about production and law of variable proportions

Genera	General	Gaining knowledge about market condition and monopolistic competition
8 19BCP304		Analyze real-world business problems with a systematic theoretical framework.
		Understanding of marketing terminology and concepts
		Demonstrate knowledge of key business communication strategies within the marketing field
		Identifying the different promotional methods
	Principles of	Understanding the concept of Market segmentation and Buyer Behaviour
9 19BCPSB1	•	Demonstrate knowledge in recent trends in marketing
		Acquire the conceptual knowledge on issue of shares
		Explaining Redemption of preference shares and issues of debentures
		Familiarizing with underwriting of shares and valuation of goodwill
	Corporate Accounting-I	Have a comprehensive knowledge about the latest provisions of the Companies Act.
10 19BCP401		Describing Liquidators final statement and deficiency account
		Explaining the basic concept of cost and how costs are presented in financial statements
		Demonstrate how material costs are added at each stage of the production cycle.
		Demonstrate how labor and overhead costs are added to a product at each stage of the production cycle.
		Gaining knowledge in Process costing, Job costing and Batch costing.

11 19BCP402	Cost Accounting	Understanding the basic concept of operating costing and contract costing.
		Understanding the basic auditing principles, concepts, planning an audit and due diligence. Illustrating the steps required to perform Internal control and Internal check, Vouching and Verification an Valuation of Assets and Liabilities.
		Illustrating the steps required to perform of Valuation of Assets and Liabilities.
	Practical	Gaining knowledge in Audit of joint stock companies and professional ethics of an auditor.
12 19BCP403	Practical Auditing	Giving Hands on training relating to Auditing.
		Acquiring the conceptual knowledge in Factories Act
		Explaining payment of wages Act and legal provisions
		Familiarizing with payment of bonus act and provisions for new companies
	Industrial and Labour Laws	Have a comprehensive knowledge about the latest EPF and ESI and provisions
13 19BCP404		Describing Workers compensation act and liability for compensation
		Acquiring the conceptual knowledge on Financial Markets
		Explaining market for corporate securities
	Management of	Familiarizing with the concept secondary market and the role of SEBI
	Financial	Have a comprehensive knowledge about the latest Mutual funds and SEBI Guideliness
14 19BCPSB3	Markets and services	Describing New modes of Financing and CRISIL.

		To introduce and develop knowledge of holding companies accounts
		To understand the concept of Inflation accounting
		To enable the students to learn the concepts of Electricity Company Accounts
	Corporate	To make them aware about accounts of banking companies
15 19BCP501		Keep them aware about accounts of insurance companies
		The students are able to learn the fundamentals of strategic management using the case method
		Analyze the Environmental factors in strategic management using in case method
		Understand the corporate strategies and the frame work of strategic management .
	Strategic Management	Understand the organizational strategies and how to implement the strategy.
16 19BCP502		The students are able to understand and manage the technology and innovation in strategic management
		Best knowledge about the environment that impact the business decision
		Awareness about important concept and terminology used in business
	Business Ethics	Understand the value and Do's and Don'ts of Ethics in business environment
	and Corporate Social	Better understand the concepts that used in international perspective
17 19BCP503		Understand the role and functions of regulatory agencies Examine the basic concepts of schedule of rates of tax, tax liability, penalties and prosecution and the tota taxable income of an assessee.

			Understanding the Income from salary and Income from House Property.
			Apply and practice the computation of total income from business or profession.
			Apply and practice the computation of income capital gains.
	18 19BCP504	Taxation-I	Apply and practice the computation of set off.
			Understand the basic framework of research process
			To formulate the hypothesis for business problems ,know the scaling techniques
			Understand the sampling techniques, preparation of questionnaire and coding techniques
		Research Methodology	Apply various parametric tests to test hypothesis
	19 19BCP505		Develop necessary critical thinking skills in order to formulate the report writing
			Understand the basic concepts of Entrepreneurship
			To Understand the start up process of entrepreneurship
			Awareness about the financial institution in rendering financial services
		Entrepreneurial Development	To understand the concept of Incentives and subsidies
	20 19BCPE01		Awareness about schemes that available for retrieving sick industry
			To learn the Importance of corporate governance and to know the concept of Macro Issues and Micro Issues
			To develop corporate Governance System Worldwide

	To imbibe the ethical issues in company audit
Corporate	To know the concept of New Companies Bill and Companies Act 2013
21 19BCPE02 Governance	e Awareness about Governance and its trends
	To Understand principles of Branding
	To understand brand ambassadors and brand image building
	To Learn Elements and components of brands, brand equity
Brand	To Acquire Knowledge on new product Development
22 19BCPE03 Manageme	nt Awareness on brand strategies
	Acquire knowledge on Management Accounting and financial statement
	To know the concept of Analysis and interpretation of financial statement and Ratio analysis
	To Learn Concepts of working capital
Managemo	To Acquire Knowledge on marginal costing and break even analysis
23 19BCP601 Accountin	
	To Understand concept of investment
	To Understand the concept of risk and return management
	To Learn Concepts of security analysis

	Investment Management	To Acquire Knowledge about stock market analysis
24 19BCP602		Awareness on portfolio management
		Understand the basic Indirect Tax.
		To learn about Goods and Services Tax Introduction
		Understand the basic concept of Levy and collection under TNGST/CGST
	Indirect	To Know the concept of Levy and collection under the integrated goods and service
25 19BCP603	Taxation	To know the introduction of customs laws in India
		Understand the basic framework of financial management
		To acquire knowledge on Sources of Long term funds
		Understand the concept of lease financing
	Financial Management	To know about the capital budgeting
26 19BCPE04		To learn about Management of Retained Earnings
		Identify the key themes in micro finance
		Explain the role of financial officer how to generate income
		To learn Credit Delivery Methodology
		Explain and analyze the Pricing of Microfinance products

27 19BCPE05	Micro Finance	To understand the concept of Commercial Microfinance
		Understand fundamental supply chain management concepts.
		Apply knowledge to evaluate and manage an effective supply chain
		Understand the foundational role on strategic alliances.
		To learn about Procurement and Outsourcing
28 19BCPE06	Supply Chain Management	To create awareness on Dimension of customer Value
		Develop a meaningful understanding of HRM theory, functions and practices Apply Human Resource Planning, Recruitment and Selection and skills across various types o organizations
		Know about the Interview process, Induction and Orientation, Training techniques
29 19BCPE07	Human Resource Management	Develop understanding on performance appraisal and its methods Educate on the process of handling disputes, laws pertaining to Employees welfare and employment in the Organization
		Acquiring the conceptual knowledge in business environment
		Explaining the Industrial Policies and Regulations
		Familiarizing with Economic Systems and Capitalism
	Business	Have a comprehensive knowledge about Technological environment
30 19BCPE08		Describing Globalisation and Foreign Direct Investment, Multinational Corporation.

Acquiring the conceptual knowledge in Material Management

Explaining Purchasing Management and Price determination

Familiarizing with the concept of Inventory Management

Have a comprehensive knowledge about store management

Materials 31 19BCPE09 Management

To know the Classification and Codification of Materials

B.Sc (Computer Science)

The area is set to promote and showcase general communication and creativity skills with the learnin potential of students

Students should be able to obtain LSRW Skills and help to explore knowledge in various genres.

Realize their responsibility towards the society center through ethical, social and human values Students should be able to know the facets of environment and society which assist them to hold the value of life.

An ability to design a system, component or process to meet desired needs within realistic constraints suc as economic, environmental, social, political, ethical, healthy and safety, manufacturability and To possess knowledge to identify, analyze, design for an optimized solution using appropriate algorithms (varying complexity using cutting edge technologies.

To develop skills in software and hardware maintenance so as to enable the students to establish productive career in industry, research and academia.

Equip the students to meet the industrial needs by utilizing tools and technologies with the skills communicate effectively among peers.

An ability to acquire required programming skills, formulate and solve practical problems. Foundation graduate programme which induces continuous improvement of knowledge and act as PROGRAMME OUTCOME (PO): platform for higher studies and engage in research.

Demonstrate understanding of the principles and working of the hardware and software aspects of compute systems

Design, implements, test, and evaluate a computer system, component, or algorithm to meet desired need and to solve a computational problem.

Apply problem-solving and technical skills to analyze complex problems and propose feasible computir solutions using fundamental principles of mathematics and computing sciences.

Develop front end and back end way approach for real time applications.

PROGRAMME SPECIFIC OUTCOME (PSO):

To Enhance skills and adapt new computing technologies for attaining professional excellence and carrying

research

Course

S.No Code

Course Name

Course Outcome

CO1:Understand different Number systems, Codes, Relational Algebra and Logic Gates

CO2: Simplify the Boolean functions to the minimum number of literals

CO3:Develop conditional and iterative statements to write C programs

Principles and

Core 1- Digital CO4:Exercise user defined functions to solve real time problems

1 21BSC101 C Programming CO5:Inscribe C programs that use Pointers to access arrays, strings and functions

CO1:Understand basic Structure of the C-Programming, declaration and usage of variable

CO2:Write C programs using operators

Core Lab I –

CO3: Exercise conditional and iterative statements to write C programs

Digital

Principles and CO4:Write C programs using Pointers to access arrays, strings and functions

C Programming CO5:To write C programs using pointers and allocate memory using dynamic memory management

2 21BSCP01 lab

functions

		CO1:Understand the relative merits of C++ as an object oriented programming language
		CO2:Ability to understand C++ programming structures and function
	Core 2 : Object Oriented Programming	CO3:Understanding the advanced use of arrays in C++ programming CO4: Understand how to apply the major object-oriented concepts to implement object oriented programs C++, encapsulation, inheritance and polymorphism
3 21BSC201 with C	2	CO5:Understand advanced features of C++ specifically stream I/O, templates CO1:Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, dat and objects.
		CO2:Understand dynamic memory management techniques using pointers, constructors, destructors, etc., CO3: Describe the concept of function overloading, operator overloading, virtual functions an polymorphism.
(Core Lab 2 – Object Oriented Programming with C++ Lab	CO4:Classify inheritance with the understanding of early and late binding, usage of exception handling, an generic programming.
4 21BSCP02		CO5:Demonstrate the use of various OOPs concepts with the help of programs.
		CO1:Understand the basics of data structures.
		CO2: Ability to analyze importance of stacks and queues.
		CO3:Analyze basic protocols of IoT.
5 19BSC301	Structures and	CO4: Understand the critiques of trees and graphs.
		CO5: Acquire ideas about searching and sorting CO1:Identifyclasses, objects, members of a class and relationships among them needed for a specifi problem

		CO2:Use an integrated development environment to write, compile, run, and test simple object-oriented Jav programs.
		CO3:Demonstratethe concepts of polymorphism and inheritance
6 19BSC302	Core 4: Java Programming	CO4:Identify and fix defects and common security issues in code CO5:Identify classes, objects, members of a class and relationships among them needed for a specifi problem
		CO1:Visualize layered approach to networking and understand various application layer protocols
		CO2:Understand transport layer concepts, protocols & services.
7 19BSC303	Core 5 : Computer Networks	CO3:Demonstrate the basic understanding of network layer, routing principles,IPv6. CO4:Able to develope fundamental understanding of Link layer,multiple access protocol, addresses & ARI CSMA / CD, PPP details CO5:Describe basic concepts and algorithms of cryptography including Hash functions , digital signatures SSL, SET & IPSec
		CO1:Use the object oriented concepts of java for the given problem.
	Core Lab 3: Java Programming Lab	CO2:Understand the enabling technologies for building internet applications. CO3:Design Java programming using the features of the networking and remote method development. Construct a internet application.
		CO4: Implement packages, access specifiers and interfaces in a program
8 19BSCP03		CO5:Write JAVA programs to demonstrate method overloading
		CO1: Developed understanding of technical aspect of Multimedia Systems.
		CO2: Understand various file formats for audio, video and text media

		CO3: Develop various Multimedia Systems applicable in real time.
	SBC I Multimedia	CO4: Design interactive multimedia software.
9 19BSCSB1		CO5:Apply various networking protocols for multimedia applications.
		CO1: Describe the Numbers, Math functions, Strings, List, Tuples and Dictionaries in Python
		CO2: Express different Decision Making statements and Functions
		CO3:Interpret Object oriented programming in Python
	SBC I Python Lab	CO4:Understand and summarize different File handling operations
10 19BSCSB2		CO5:Explain how to design GUI Applications in Python and evaluate different database operations
		CO1: Know about Barriers of communication
		CO2: Getting ideas about report writing
		CO3: Preparing agenda and meeting minutes
	Business	CO4: Know the MS Office basics
11 15BSCED1		n CO5: Know the Tally basics
		CO1:Use the techniques, components and tools of a typical database management system. CO2:Design a correct, new database information system for a business functional area and implement th design in either SQL or NoSQL
	~ ~ ~	CO3:Understand the concepts of open source databases like MongoDB and MySQL.

	Core 6 : Data Base Management	CO4:Know the concepts of SQL, PL/SQL, Triggers , cursors and Normalization
12 19BSC401	•	CO5:Understand, appreciate and effectively explain the underlying concepts of database technologies
		CO1:Create a PHP web page that is unique to each visitor
		CO2:Customise the theme for a WordPress site
		CO3:Perform various MySQL database queries
	Core 7: PHP	CO4:Seek solutions to any PHP problems and further your knowledge.
13 19BSC402		CO5: Use PHP-driven dynamic content in HTML5 animations
		CO1:Describe process management and concepts of threading, multitasking,IPC. CO2:Differentiation of various scheduling algorithms and identify the reasons of deadlock and their remedi measures in an operating system
		CO3:Describe various memory management techniques
	Core 8: Operating	CO4:Understand representation of file system interface.
14 19BSC403		CO5:Analyze of disk scheduling algorithms for efficient utilization.
		CO1:Design, develop and host a userfriendly website.
		CO2:Knowthe usage of APIs
	Core Lab 4:PHP	CO3:Layout management in line with current trend.
		CO4:Use fundamental skills to maintain web server services required to host a website.

15 19BSCP04	Programming Lab	CO5:Select and apply markup languages for processing, identifying, and presenting of information in we pages.
		CO 1:Understanding the basic set of commands and utilities in Linux systems.
		CO 2: Learn to develop software for Linux systems.
		CO 3: Learn the important Linux library functions and system calls.
	SBC II : Linux	CO 4: Understand the inner workings of LINUX-like operating systems.
16 19BSCSB3		CO 5:Obtain a foundation for an advanced course in operating systems. CO1: Develop SQL Queries Using Embedding Operators - Write and read (understand) SQL queries using sub queries embedded using embedding operators (IN, NOT IN, EXISTS, NOT EXISTS, ALL, ANY, CO2: Design SQL Queries with GROUP BY - Write and read (understand) SQL queries using the GROUF
		BY clause. CO3: Develop Simple SQL Queries With HAVING - Write and read (understand) SQL queries using the GROUP BY and HAVING clauses. CO4: Implement HAVING Clause - Translate an SQL query using the GROUP BY and HAVING clauses into an equivalent query without the HAVING clause.
17 19BSCSB4		CO5: Develop PL/SQL Programs
		CO1:Understand the different process models and project management concepts
		CO2:Develop skills for cost estimation for software development and understand the software risks.
		CO3:Enhance teamwork ability in project scheduling and apply the concepts of software quality assurance
	Core 9: Software	CO4:Ablility to relate and outline system engineering and product engineering process.
18 19BSC501		CO5: Design requirement mapping strategies for development of software.

		CO1:Create user interactive web pages using ASP.Net.
		CO2:Able to create simple webapplications and window applications
		CO3:Performing Database operations for Windows Form and web applications
	Carra 10. Nat	CO4:Develop Assemblies and Deployment in .NET, Mobile Application Development
19 19BSC502	Core 10: .Net Programming	CO5:Understand and be able to explain Security in the .NET framework and Deployment in the .NET.
		CO1:Demonstrate a basic understanding of computer hardware and software.
		CO2:Demonstrate problem-solving skills
		CO3:Utilize web technologies.
	Core 11: PC Hardware	CO4:Present conclusions effectively, orally, and in writing
20 19BSC503		CO5 :Demonstrate basic understanding of network principles
		CO1:Have a basic understanding of the core concepts of computer graphics
		CO2:Be capable of using OpenGL to create interactive computer graphics.
		CO3:Understand a typical graphics pipeline.
21 19BSC504	Core 12: Computer Graphics	CO4:Have made pictures with their computer CO5: To make the students familiar with techniques of clipping, three dimensional graphics and thre dimensional transformations.
		CO1:Create user interactive web pages using ASP.Net.

		CO2:The students able to create simple webapplications and window applications
	Core Lab 5: .Net Programming Lab	CO3:Performing Database operations for Windows Form and web applications
		CO4:Develop Assemblies and Deployment in .NET, Mobile Application Development
22 19BSCP05		CO5:Understand and be able to explain Security in the .NET framework and Deployment in the .NET.
		CO1: Implement various applications using build systems
		CO2: Understand the installation of various packages in open source operating systems
		CO3: Able to recognize the benefits and features of Open Source Technology.
23 19BSCE01	Elective I: Open Source Technologies	CO4: Interpret, Contrast and compare open source products among themselves
		CO5: Understand and demonstrate Version Control System along with its commands CO1: Understand SIC architecture, features of utility software's such as assemblers, loaders, linkers editors and macro processor.
		CO2 : Design simple assembler for Simple instruction computer.
		CO3 : Analyze linker and loaders for simple instruction computer.
24 19BSCE02	Elective I: System 2 Software	CO4 : Design elementary macro processor for simple assembly level language.
		CO5: Understand the importance of application software and system software
		CO1 : Specify, analyze and design the use case driven requirements for a particular system.
		CO2 : Model the event driven state of object and transform them into implementation specific layouts.

	Elective I:	CO3 : Identify, Analyze the subsystems, various components and collaborate them interchangeably.
	Unified Modeling	CO4: Create and analyze activity and state diagrams.
25 19BSCE03	_	CO5 : Present the transition from business events to use cases.
		CO1:Learn the Internet Programming using Java Applets
		CO2:Make a resusable software component, using Java Bean
		CO3:Demonstrate the concepts of polymorphism and inheritance
26 19BSC601		CO4:Identify the defects and common security issues in code CO5:Identify classes, objects, members of a class and relationships among them needed for a specifi problem
		CO1: Know the factors driving the need for network security
		CO2: Identify and classify particular examples of attacks
	Core 14:	CO3: Understand the terms vulnerability, threat and attack
27 19BSC602	Network Security and Cryptography	CO5: Identify physical points of vulnerability in simple networks CO5: Compare and contrast symmetric and asymmetric encryption systems and their vulnerability to attack and explain the characteristics of hybrid systems.
		CO1:Understand the types of inheritance and use them in programs.
		CO2:Develop Java application programs using OOP principles and proper program structuring
	~ • • •	CO3:Implement error handling techniques using exception handling

28 19BSCP06	Core Lab 6: Web Technologies Lab	CO4:Able to write JAVA programs to demonstrate method overloading CO5:Identify usage of collection framework CO1:Demonstrate an understanding of the importance of data mining and the principles of busines intelligence
	Elective II:	CO2 :Organize and Prepare the data needed for data mining using pre preprocessing techniques CO3 :Perform exploratory analysis of the data to be used for mining. CO4:Implement the appropriate data mining methods like classification, clustering or Frequent Patter mining on large data sets. CO5 :Student will be able to understand basic cryptographic algorithms, message and web authentication an
29 19BSCE04		security issues. CO1: Analyze and model software specifications.
		CO2: Understand the object-based views for generic software systems. CO3: Understand the importance of robust software components.
30 19BSCE05	Elective II: Artificial Intelligence	CO4: Apply Artificial Intelligence techniques for problem solving. CO5: Apply optimization to solve the problems. CO1: Identify some of the factors driving the need for network security
		CO2: Identify and classify particular examples of attacks
	Elective II:	CO3: Define the terms vulnerability, threat and attack CO5: Identify physical points of vulnerability in simple networks

31 19BSCE06	Information Security	CO5: Compare and contrast symmetric and asymmetric encryption systems and their vulnerability to attack and explain the characteristics of hybrid systems.
		CO1:Evaluate the architecture and principles of operation of computer systems and networks.
		CO2:Design and develop software systems for various application domains. CO3:Manage the development of software systems through a variety of development processes an methodologies.
32 19BSCE07	Elective III: Mobile Computing	C04:Synthesize new knowledge in the field of computer science by using different methodologies. CO5:Demonstrate the ability to design a system, componentor process as per needs and specifications.
		CO1: Provide students with the fundamentals and essentials of Cloud Computing. CO2: Provide students a sound foundation of the Cloud Computing so that they are able to start using and adopting Cloud Computing services and tools in their real life scenarios. CO3: Enable students exploring some important cloud computing driven commercial systems an applications. CO4: Expose the students to frontier areas of Cloud Computing and information systems, while providin
	Elective III: Cloud	sufficient foundations to enable further study and research.
33 19BSCE08	Computing	CO5:Express/present ideas in an impressive and professional manner
		CO1: Assess the vision and introduction of IoT.
		CO2: Understand IoT Market perspective.
		CO3: Implement Data and Knowledge Management and use of Devices in IoT Technology.
	Elective III: Internet of	CO4: Understand State of the Art - IoT Architecture.
34 19BSCE09		CO5: Classify Real World IoT Design Constraints, Industrial Automation in IoT.

CO1: Develop plans with relevant people to achieve the project's goals.

CO2: Design a work down structure into tasks and determine handover procedures.

CO3: Identify links, dependencies and schedule to achieve deliverables.

CO4: Estimate required resources to complete a target

Project and

35 19BSCPR1 Viva Voce

CO5: Build Project using latest concepts

B.Sc (INFORMATIONTECHNOLOGY)

PO1: The area is set to promote and showcase general communication and creativity skills with the learning potential of students.

PO2: Students should be able to obtain LSRW Skills and help to explore knowledge in various genres.

PO3: Realize their responsibility towards the society center through ethical, social and human values

PO4: Students should be able to know the facets of environment and society which assist them to hold the values of life.

PO5:An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, healthy and safety, manufacturability and sustainability.

PROGRAMME OUTCOME (PO):

PO6: Attain the core value in their respective area to meet out the global competitive edge.

PO7: Applyand update their skills towards their employability, entrepreneurshipand its sustainability.

PO8: Realize their responsibility towards the society centre through ethical, social and human values.

PO9: Recognize the opportunities towards their up gradation and professional development in all spheres.

PO10: Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.

		PSO1: Understand the field of Information Technology, to provide holistic knowledge about Software
PROGRAMME SPECIFIC OUTCOME (PSO):		PSO2: Analyze the relationship among storing, processing, securing, and managing information. PSO3: Acquire the knowledge in the various fields of Information Technology including Networks, Testing, Information Security, Databases, and Programming PSO4: Comprehend the professional ethics in any science subject to help in the development of interdisciplinary approach for sustainable evelopment
COURSE S.NO CODE	COURSE NAME	PSO5:B.Sc IT graduates are hired as Programmer, Database Administrator, IT Specialists, Technology Engineer, and Web Designer. COURSE OUTCOME
	Core 1 – Programming in C	CO1:Understand the fundamentals of C programming.
		CO2:Choose the decision making statements, loops and arrays to solve the problem.
		CO3:Use functions to solve the given problem.
		CO4:Allocate dynamic memory using pointers.
1 21BIT101		CO5:Apply the structures, unions and files Operations in a specific need. CO 1: Read, understand and trace the execution of the program written in C language
		CO 2: Write the C code for the given algorithn
		CO 3: Develop C programs involving function
		CO 4:Develop C programs involving functions, recursion, pointers, and structures
2 21BITP01	Core Lab 1 - C Lab	CO 5: Design applications using file concepts

		operators.
		CO2:Describe decision making by branching and looping statements, functions and arrays.
3 21BIT201	Core 2 - Object Oriented Programming with C++	CO3:Understand dynamic memory management techniques Using pointers, constructors, destructors, etc CO4:Classify inheritance with the understanding of Inheritance, early and late binding, usage of virtual functions and Polymorphism. CO5:Demonstrate the use of various OOPs concepts with the help of exception handling, templates and fil operations. CO1:Master using key structured programming constructs: declarations, sequence, selection, repetitior evaluating expressions.
		CO2: Be familiar with C++classes.
	Core Lab - 2 –	CO3: Master Constructors, Operator overloading ad Polymorphism concepts.
	Object Oriented	CO4:Be familiar with using String handling functions.
	Programming with C++	CO5:Be familiar with using C++ functions and the concepts related to good modular design. CO1:Write, compile, and execute Java programs that may include basic data types and control flov constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, CO2:Write, compile and execute Java programs using object oriented class structures with parameters constructors, and utility and calculations methods, including inheritance, test classes and exception handling
		CO3:Write, compile, and execute Java programs using arrays and recursion.
	Core 3 – Java Programming	CO4:Write, compile, and execute Java programs manipulating Strings and text documents.
		CO5:Write, compile, execute Java programs that include GUIs and event driven programming.
		CO 1.Select appropriate data structures as applied to specified problem definition.

CO1:Describe the procedural and object oriented paradigm with concepts of streams, data types and

		CO 2.Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various da structures.
		CO 3.Students will be able to implement Linear and Non-Linear data structures.
	Core 4 - Data	CO 4.Implement appropriate sorting/searching technique for given problem.
6 19BIT302	Structures	CO 5.Determine and analyze the complexity of given Algorithms.
		CO 1.Describe basic organization of computer and the architecture of 8086 microprocessor.
	Core 5 -	CO 2. Implement assembly language program for given task for 8086 microprocessor. CO 3.Demonstrate control unit operations and conceptualize instruction leval parallelism.
	Computer Organization & Architecture	CO 4.Categorize memory organization and explain the function of each element of a memory hierarchy.
7 19BIT303		CO 5Identify and compare different methods for computer I/O mechanisms.
		CO 1:Know about new ideas and advances, techniques, and tools and to use them effectively
		CO 2:Implement Object Oriented Programming Concepts
	Core Lab 3 – Java Programming Lab	CO 3:Use and create packages and interfaces in a Java program
8 19BITP03		CO 4:Use graphical user interface in Java programs
		CO 5:Create Applets and implementing exception handling and multithreading concepts. CO1:Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.
		CO2:Develop skills in analyzing the usability of a web site.

	SBC I - Web	CO3:Learn the language of the web: HTML and CSS.
9 19BITSB1		CO4: Ability to create web pages of their own skill.
		CO1: Develop skills to perform documentation
		CO2: Abilty to perform accounting operations
	SBC II - Office	CO3:Helps to perform presentation skills
10 19BITSB2		CO4:Ability to create a database
		CO1:Develop the knowledge of network management and the network management architecture
		CO 2.Understand the concepts of CORBA, RMI and .Net technologies
	Middleware	CO 3.Apply the components of C# .Net technology to given applications CO 4.Classify the architecture of CORBA and mapping the CORBA with existing Programming language like Java.
11 19BIT401	Technologies	CO 5.Implement integration of component based architectures with Enterprise applications
		CO 1.Describe the functions of each layer in OSI and TCP/IP model.
		CO 2.Explain the functions of Application layer and Presentation layer paradigms and Protocols. CO 3.Describe the Session
		layer design issues CO 4.Identify the various computer network protocol design models and the usage of various types c transmission media and working of LAN technology
12 19BIT402	Computer Networks	CO 5.Familiarize the variouswireless LAN concepts and the design of adhoc wireless network

		CO 1:Able to describe process management and concepts of threading, multitasking,IPC. CO 2:Able to differentiation of various scheduling algorithms and identify the reasons of deadlock and the remedial measures in an operating system.
	Operating System	CO 3:Able to describe various memory management techniques.
		CO 4:Able to Analyze of disk scheduling algorithms for efficient utilization.
13 19BIT403		CO 5:Able to apply the concepts of operating system to study Linux.
		CO 1:learn the Internet Programming, using Java Applets
		CO 2:apply event handling on AWT and Swing components.
		CO 3:learn to access database through Java programs, using Java Data Base Connectivity (JDBC)
14 19BITP04	Middleware technologies lal	CO 4:create dynamic web pages, using Servlets and JSP. CO 5:invoke the remote methods in an application using Remote Method Invocation (RMI) and understand the multi-tier architecture of web-based enterprise applications using Enterprise JavaBeans (EJB). CO 1:Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.
		CO 2:Develop skills in analyzing the usability of a web site.
19BITSB3	SBC II Lab – Web Design Lab	CO 3:Learn the language of the web: HTML and CSS.
15		CO 4:Be able to embed social media content into web pages.
		CO1:Helps in preparing documents in MS.Word and various alignment procedure
	~~~ ** 1	CO2:Demonstrate the creation of tables and charts and various other functions in Ms.Excel

	SBC II Lab – Office Automation	CO3:To Design the slides and charts in MS.Powerpoint
16 19BITSB4	Lab	CO4:Helps to create different database in Ms asscess CO1: Understand the concepts of microcomputer and microprocessors and internal architecture of 808: microprocessor. CO2: Write and implement efficient structured assembly language programs to solve the problems usin
		8085 microprocessor.
		CO3:Understand the concepts of 8085 microprocessor interrupts
17 19BITED1	and its	CO4: Write and implement programs to interface the 8085Microprocessor with Analog and Digital devices. CO5: Understand motherboard circuitry and programmable peripheral devices such as RS232C, DMA controller.
18 19BIT501	Core 9 Net Framework	CO 1:Upon successful course completion the concepts of.NET framework
		CO 2:The students able to create simple webapplications and window applications
		CO 3: Able to connect database using ADO.NET in C#.NET
		CO 4:To develop Assemblies and Deployment in .NET, Mobile Application Development
		CO 5:To understand and be able to explain Exception handling and Threads
		CO 1:Evaluate the architecture and principles of operation of computer systems and networks.
	Core 10 –	CO 2:Design and develop software systems for various application domains. CO 3:Manage the development of software systems through a variety of development processes an methodologies. CO 4:Synthesize new knowledge in the field of computer science by using appropriate researc methodologies.

19 19BIT502	Mobile Computing	CO 5: Demonstrate the ability to design a system, componentor process as per needs and specifications.
		CO 1:Able to understand the different process models and project management concepts
		CO 2:Able to develop skills for cost estimation for software development and understand the software risks. CO 3:Able to enhance teamwork ability in project scheduling and apply the concepts of software qualit assurance
	Core 11 – Software	CO 4:Able to relate and outline system engineering and product engineering process.
20 19BIT503	Engineering	CO 5 : Able toapply requirement mapping strategies for development of software.
		CO 1: Understand, appreciate and effectively explain the underlying concepts of database technologies
		CO 2:Design and implement a database schema for a given problem-domain
21 19BIT504	Core 12 – RDBMS	CO 3:Populate and query a database using SQL DML/DDL commands
		CO 4: Declare and enforce integrity constraints on a database using a state-of-the-artRDBMS
		CO 5:To Know the concepts of SQL, PL/SQL, Triggers, cursors and Normalization
		CO 1: Able to understand the console application creation and its implementation
		CO 2: Describe how to upload the document file in our own directory
		CO 3: Demonstrate the basic DML Operations
	Core Lab 5 - Net Framework	CO 4: Descirbes how to transact records in database
22 19BITP05	Lab	CO 5: Illustrate hot to generate a data report

		CO1: Able to understand the application areas of IOT ·
		CO 2: Able to understand building blocks of Internet of Things and characteristics.
23 19BITE01	Elective I - IOT	CO 3: Able to realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks ·
		CO4:To learn the concepts of smart city development in IOT
		CO5: To learn how to analysis the data in IOT CO 1:Able to apply knowledge and awareness of the basic principles and concepts of biology, compute science and mathematics
		CO 2: existing software effectively to extract information from large databases and to use this information i computer modeling
24 19BITE02	Elective I - Bio – Informatics	CO 3: problem-solving skills, including the ability to develop new algorithms and analysis methods CO 4:an understanding of the intersection of life and information sciences, the core of shared concept language and skills the ability to speak the language of structure-function relationships, information theory,
		CO 5:Students will Create computer programs that facilitate biological data analysis
		CO 1: Describes basic data mining tasks, KDD process and various databases techniques
		CO 2: Describes why to preprocess the data and the concept of data cleaning, intergration
25 19BITE03	Elective I - Data Mining & Warehousing	CO 3: Illustrate the social implications of Data Mining CO 4: Able to understand the various classification of algorithms like distance, decision tree based, neura network algorithms
		CO 5: Defines the clustering and association rules followed in data mining
		CO 1. Understand how server-side programming works on the web.

		CO 2. PHP Basic syntax for variable types and calculations.
26 19BIT601	Core 13 - PHP Programming	CO 3. Creating conditional structures
		CO 4:. Storing data in arrays
		CO 5. Using PHP built-in functions and creating custom functions
		CO 1. Understand the basic concepts fo attacks, methods of defence and classification of hackers
		CO 2. Demonstrate the basic cryptographic terms, data encryption standard , fundamentals concepts of DES
27 19BIT602 S		CO 3. Identifies different types of flaws, kinds of malicious code and prevention of virus infection
	Core 14 – Information Security  Core Lab 6 – PHP Lab	CO 4. Able to understand the file protection mechanisms, user authentication
		CO 5. Describes the security requirements, ethical issues in computer security
		CO 1.use HTML form elements that work with any server-side language
		CO 2. create a PHP web page that is unique to each visitor
		CO 3.validate user input
		CO 4. create, back up and restore a MySQL database
		CO 5. perform various MySQL database queries CO1. Explain the motivation for big data systems and identify the main sources of Big Data in the rea world. CO 2: . Demonstrate an ability to use frameworks like Hadoop, NOSQL to efficiently store retrieve and process Big Data for Analytics.

		CO 3: Implement several Data Intensive tasks using the Map Reduce Paradigm
29 19BITE04	Big Data	CO 4 : Apply several newer algorithms for Clustering Classifying and finding associations in Big Data
		CO 5: Design and implement successful Recommendation engines for enterprises.
		CO 1: Understand the AI branches and search process and their algorithms
		CO 2: Describe various searching techniques
	Elective II -	CO 3: Understand the knowledge representation issues
	Artificial Intelligence and	CO 4: Describes various learinging procedures
30 19BITE05	•	CO 5: helps to deal with hidden variable CO1: Describe the Numbers, Math unctions, Strings, List, Tuples and Dictionaries in Python
		CO2: Express different Decision Making statements and Function
		CO3: Interpret Object oriented programming in Python
	Elective II	CO 4: Understand and summarize different File handling operation
31 19BITE06	:Python Programming	CO 5: Explain how to design GUI Applications in Python and evaluate different database operations
		CO 1:Have an ability to apply software testing knowledge and engineering methods.
		CO 2:Have an ability to design and conduct a software test process for a software testing projec. CO 3:Have an ability to understand and identify various software testing problems, and solve these problem by designing and selecting software test models, criteria, strategies, and methods

32 19BITE07	Elective III : Software Testing	CO 4:Have an ability to design and conduct various types and levels of software testing for a software project.
		CO 5 :Have basic understanding, knowledge of contemporary issues in software testing and test planning.
		CO 1: Describe Android platform, Architecture and features.
		CO 2 : Design User Interface and develop activity for Android App.
	Elective III	CO 3: Use Intent, Broadcast receivers and Internet services in Android App.
	:Mobile Application Development	CO 4: Design and implement Database Application and Content providers.
33 19BITE08		CO 5 : Discuss various security issues in Android platform CO1:To understand the characteristics of different media; understand the representations of different multimedia data;
	Elective III	CO2:To understand different data formats; be able to take into considerations in multimedia system designs; CO3:understand the characteristics of human's visual system; understand the characteristics of human's audio system; be able to take into considerations in multimedia techniques design and implementation; CO4: understand different compression principles, compression techniques, multimedia compression standards.
34 19BITE09	:Multimedia	CO5: To program multimedia data and be able to design and implement media applications; CO1: Identify project goals, constraints, deliverables, performance criteria, control needs, and resourc requirements.
		CO2: Identify the requirements for the real world problems
		CO3: Study and enhance software / hardware skills CO4: Demonstrate and build the project successfully by hardware requirements coding, emulating an testing

Project	and
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35 19BITPR1 Viva Voce CO5; Compare and contrast the several existing solutions for application development

Analyze the strategic options for ERP identification and adoption.

Describe the ERP selection process, ERP vendor selection.

Describe the ERP in sales and Distribution perspective

Describe the ERP in purchasing perspective

Enterprise

Resource

Identify the important business functions provided by typical business software such as

B.Sc (COMPUTER TECHNOLOGY)

36 19BITID3 Planning

**PO1:** The area is set to promote and showcase general communication and creativity skills with the learning potential of students.

PO2: Students should be able to obtain LSRW Skills and help to explore knowledge in various genres.

PO3: Realize their responsibility towards the society center through ethical, social and human values

**PO4:** Students should be able to know the facets of environment and society which assist them to hold the values of life.

**PO5:**An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, healthy and safety, manufacturability and sustainability.

PO6: Attain the core value in their respective area to meet out the global competitive edge.

**PO7:** Applyand update their skills towards their employability, entrepreneurshipand its sustainability.

PO8: Realize their responsibility towards the society centre through ethical, social and human values.

**PO9:** Recognize the opportunities towards their up gradation and professional development in all spheres.

PROGRAMME OUTCOME (PO):		<b>PO10:</b> Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.
		<b>PSO1:</b> Understand the field of Information Technology, to provide holistic knowledge about Software
PROGRAMME SPECIFIC OUTCOME (PSO):		PSO2: Analyze the relationship among storing, processing, securing, and managing information.  PSO3: Acquire the knowledge in the various fields of Information Technology including Networks, Testing, Information Security, Databases, and Programming  PSO4: Comprehend the professional ethics in any science subject to help in the developmen of interdisciplinary approach for sustainable evelopment
		<b>PSO5:</b> B.Sc. (CT) graduates have great opportunity to enter the ever expanding software and IT fields as Programmers, Network Administrators a System Analysts.
COURSE S.NO CODE	COURSE NAME	COURSE OUTCOME CO 1: Understand the fundamentals of C programming
		CO 2:Choose the decision making statements, loops and arrays to solve the problem
1 21BCT101	Core 1 – Programming in C	CO 3:Use functions to solve the given problem
		CO 4:Allocate dynamic memory using pointers
		CO 5:Apply the structures, unions and files Operations in a specific need Develop conditional and iterative statements to write C programs CO 1: Read, understand and trace the execution of the program written in C language
		CO 2: Write the C code for the given algorithn
		CO 3: Develop C programs involving function
	Core Lab 1 -	CO 4:Develop C programs involving functions, recursion, pointers, and structures

CO 5: Design applications using file concepts Programming 2 21BCTP01 in C CO1:Describe the procedural and object oriented paradigm with concepts of streams, data types and operators. CO2:Describe decision making by branching and looping statements, functions and arrays. CO3:Understand dynamic memory management techniques Using pointers, constructors, destructors, etc Core 2 -CO4:Classify inheritance with the understanding of Inheritance, early and late binding, usage of virtue Object Oriented functions and Polymorphism. CO5:Demonstrate the use of various OOPs concepts with the help of exception handling, templates and fil **Programming** 3 21BCT201 with C++ operations. CO1:Master using key structured programming constructs: declarations, sequence, selection, repetitior evaluating expressions. CO2: Be familiar with C++classes. CORE LAB - 2 - OBJECT CO3: Master Constructors, Operator overloading ad Polymorphism concepts. **ORIENTED** PROGRAMMI CO4:Be familiar with using String handling functions. NG WITH 4 21BCTP02 C++ CO5:Be familiar with using C++ functions and the concepts related to good modular design. CO1:Write, compile, and execute Java programs that may include basic data types and control flov constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, CO2:Write, compile and execute Java programs using object oriented class structures with parameters constructors, and utility and calculations methods, including inheritance, test classes and exception handling CO3:Write, compile, and execute Java programs using arrays and recursion. CO4:Write, compile, and execute Java programs manipulating Strings and text documents. Core 3 – Java

CO5:Write, compile, execute Java programs that include GUIs and event driven programming.

5 19BCT301 Programming

		CO 1.Select appropriate data structures as applied to specified problem definition. CO 2.Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various da structures.
		CO 3.Students will be able to implement Linear and Non-Linear data structures.
	Core 4 - Data	CO 4.Implement appropriate sorting/searching technique for given problem.
6 19BCT302		CO 5.Determine and analyze the complexity of given Algorithms.
		CO 1.Describe basic organization of computer and the architecture of 8086 microprocessor.
	Core 5 -	CO 2. Implement assembly language program for given task for 8086 microprocessor. CO 3.Demonstrate control unit operations and conceptualize instruction levo parallelism.
7 19BCT303	Computer Organization & Architecture	CO 4.Categorize memory organization and explain the function of each element of a memory hierarchy.
		CO 5Identify and compare different methods for computer I/O mechanisms.
		CO 1:Know about new ideas and advances, techniques, and tools and to use them effectively
		CO 2:Implement Object Oriented Programming Concepts
	Core Lab 3 – Java Programming Lab	CO 3:Use and create packages and interfaces in a Java program
8 19BCTP03		CO 4:Use graphical user interface in Java programs
		CO 5:Create Applets and implementing exception handling and multithreading concepts. CO1:Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.

		CO2:Develop skills in analyzing the usability of a web site.
9 19BCTSB1	SBC I - Web Design	CO3:Learn the language of the web: HTML and CSS.
		CO4:Ability to create web pages of their own skill.
		CO1: Develop skills to perform documentation
		CO2: Abilty to perform accounting operations
	SBC II - Office	CO3:Helps to perform presentation skills
10 19BCTSB2		CO4:Ability to create a database
		CO 1: Understand, appreciate and effectively explain the underlying concepts of database technologies
		CO 2:Design and implement a database schema for a given problem-domain
	Core 6 – RDBMS	CO 3:Populate and query a database using SQL DML/DDL commands
		CO 4: Declare and enforce integrity constraints on a database using a state-of-the-artRDBMS
11 19BCT401		CO 5:To Know the concepts of SQL, PL/SQL, Triggers , cursors and Normalization
		CO1 :Able todesign of real time embedded systems using the concepts of RTOS
		CO2 :Able tounderstand Programming in embedded C.
		CO3 :Able to implement fundamental Programming paradigms of 8051 Microcontroller
	Core 7 –	CO4:Able tonderstand the architecture and concepts of 8051 Microcontrollers

12 19BCT402	Embedded System	CO5 :Able to understand the various components of embedded system and apply it to real time systems
		CO 1:Able to describe process management and concepts of threading, multitasking,IPC. CO 2:Able to differentiation of various scheduling algorithms and identify the reasons of deadlock and the remedial measures in an operating system.
		CO 3:Able to describe various memory management techniques.
	On anatin a	CO 4:Able to Analyze of disk scheduling algorithms for efficient utilization.
13 19BCT403	Operating System	CO 5:Able to apply the concepts of operating system to study Linux.
		CO1. Apply the basic concepts of Database Systems and Applications.
		CO2. Use the basics of SQL and construct queries using SQL in database creation and interaction.
		CO3. Design a commercial relational database system (Oracle, MySQL) by writing SQL using the system.
		CO4. Analyze and Select storage and recovery techniques of database system.
14 19BCTP04	Core Lab 4 - RDBMS Lab	CO 5:Use PL/SQL to apply triggers and procedures CO 1:Understand the principles of creating an effective web page, including an in-depth consideration cinformation architecture.
		CO 2:Develop skills in analyzing the usability of a web site.
19BCTSB3	SBC II Lab –	CO 3:Learn the language of the web: HTML and CSS.
15	Web Design Lab	CO 4:Be able to embed social media content into web pages.
		CO1:Helps in preparing documents in MS.Word and various alignment procedure

SBC II Lab –	CO2:Demonstrate the creation of tables and charts and various other functions in Ms.Excel
Office Automation	CO3:To Design the slides and charts in MS.Powerpoint
16 19BCTSB4 Lab #	CO4:Helps to create different database in Ms asscess
	CO1: To solve numbers, HCF, LCM, Simplfication and decimal fractions
	CO2: To solve problems in percentage, Profit and loss, ratio, proportion and partnership
	CO3: To solve chain role, work and pipes, cisterns.
Mathematical	CO4: To solve problems in Time and distance, Trains, Boats and streams
17 19BCTED1 Aptitude	CO5: To solve problems on ages, relationship, odd man out series.
	CO 1:Upon successful course completion the concepts of.NET framework
	CO 2:The students able to create simple webapplications and window applications
	CO 3: Able to connect database using ADO.NET in C#.NET
Core 9 Net	CO 4:To develop Assemblies and Deployment in .NET, Mobile Application Development
18 19BCT501 Framework	CO 5:To understand and be able to explain Exception handling and Threads
	CO 1.Describe the functions of each layer in OSI and TCP/IP model.
	CO 2.Explain the functions of Application layer and Presentation layer paradigms and Protocols. CO 3.Describe the Session layer design issues

	Core 10 – Computer	CO 4.Identify the various computer network protocol design models and the usage of various types c transmission media and working of LAN technology
19 19BCT502	•	CO 5.Familiarize the variouswireless LAN concepts and the design of adhoc wireless network
		CO 1:Able to understand the different process models and project management concepts
		CO 2:Able to develop skills for cost estimation for software development and understand the software risks. CO 3:Able to enhance teamwork ability in project scheduling and apply the concepts of software qualit assurance
	Core 11 – Software	CO 4:Able to relate and outline system engineering and product engineering process.
20 19BCT503		CO 5: Able toapply requirement mapping strategies for development of software. CO 1: Describe, remove, and replace select components of a laptop; upgrade components based on custome needs and perform preventive maintenance and advanced troubleshooting. CO 2:Explain, install, and navigate an operating system; upgrade components based on customer needs an perform preventive maintenance and advanced troubleshooting.
21 19BCT504	Core 12 – PC Hardware	CO 3:Apply good communication skills and professional behavior while working with customers. CO 4: Upgrade security components based on customer needs and perform preventive maintenance an advanced troubleshooting. CO 5:Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting
		CO 1: Able to understand the console application creation and its implementation
		CO 2: Describe how to upload the document file in our own directory
		CO 3: Demonstrate the basic DML Operations
	Core Lab 5 -	CO 4: Descirbes how to transact records in database

22 19BCTP05	Net Framework Lab	CO 5: Illustrate hot to generate a data report
		CO1: Able to understand the application areas of IOT ·
		CO 2: Able to understand building blocks of Internet of Things and characteristics.
		CO 3: Able to realize the revolution of Internet in Mobile Devices, Cloud & Sensor Networks ·
	Elective I - IOT	CO4:To learn the concepts of smart city development in IOT
23 19BCTE01		CO5: To learn how to analysis the data in IOT
		CO 1:Evaluate the architecture and principles of operation of computer systems and networks.
24 19BCTE02	Elective I - Mobile Computing	CO 2:Design and develop software systems for various application domains. CO 3:Manage the development of software systems through a variety of development processes an methodologies. CO 4:Synthesize new knowledge in the field of computer science by using appropriate researc methodologies. CO 5:Demonstrate the ability to design a system, componentor process as per needs and specifications.
		CO1:Defines the working of cloud computing and their pros and cons
		CO2:Identifies centrailising email communicaitons and mappind schedule in projects
		CO3:Explore collaboration of scheduling, planning and event management and contact management
	Elective I - Cloud	CO4:Evaluate the web conference tools and how to create social networks
25 19BCTE03		CO5:Undetstand the cloud storage and how to explore photo sharing and Describe about groupware

		CO 1. Understand how server-side programming works on the web.
		CO 2. PHP Basic syntax for variable types and calculations.
		CO 3. Creating conditional structures
	Core 13 - PHP Programming	CO 4:. Storing data in arrays
26 19BCT601		CO 5. Using PHP built-in functions and creating custom functions
		CO 1. Understand the basic concepts fo attacks, methods of defence and classification of hackers
		CO 2. Demonstrate the basic cryptographic terms, data encryption standard , fundamentals concepts of DES
		CO 3. Identifies different types of flaws, kinds of malicious code and preventionof virus infection
27 19BCT602	Core 14 – Information Security	CO 4. Able to understand the file protection mechanisms, user authentication
		CO 5. Describes the security requirements, ethical issues in computer security
		CO 1.use HTML form elements that work with any server-side language
		CO 2. create a PHP web page that is unique to each visitor
		CO 3.validate user input
	Core Lab 6 - PHP Lab	CO 4. create, back up and restore a MySQL database
28 19BCTP06		CO 5. perform various MySQL database queries CO1. Explain the motivation for big data systems and identify the main sources of Big Data in the rea world.

		CO 2: . Demonstrate an ability to use frameworks like Hadoop, NOSQL to efficiently store retrieve and process Big Data for Analytics.
	Elective II - Big Data Analytics	CO 3: Implement several Data Intensive tasks using the Map Reduce Paradigm
		CO 4 : Apply several newer algorithms for Clustering Classifying and finding associations in Big Data
29 19BCTE04		CO 5: Design and implement successful Recommendation engines for enterprises.
		CO 1: Describes basic data mining tasks, KDD process and various databases techniques
		CO 2: Describes why to preprocess the data and the concept of data cleaning, intergration
30 19BCTE05	Elective II - Data Mining and Warehousing	CO 3: Illustrate the social implications of Data Mining CO 4: Able to understand the various classification of algorithms like distance, decision tree based, neura network algorithms
		CO 5: Defines the clustering and association rules followed in data mining CO1: Describe the Numbers, Math unctions, Strings, List, Tuples and Dictionaries in Pythol
		CO2: Express different Decision Making statements and Function
		CO3: Interpret Object oriented programming in Python
31 19BCTE06	Elective II :Python Programming	CO 4: Understand and summarize different File handling operation
		CO 5: Explain how to design GUI Applications in Python and evaluate different database operations
		CO 1:Have an ability to apply software testing knowledge and engineering methods.
		CO 2:Have an ability to design and conduct a software test process for a software testing projec.

32 19BCTE07	Elective III : Software Testing	CO 3:Have an ability to understand and identify various software testing problems, and solve these problem by designing and selecting software test models, criteria, strategies, and methods CO 4:Have an ability to design and conduct various types and levels of software testing for a software project.  CO 5:Have basic understanding, knowledge of contemporary issues in software testing and test planning. CO 1:Understand the basics of computer graphics, different graphics systems and applications of compute graphics CO 2:Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis
33 19BCTE08	Elective III : Computer Graphics & Multimedia	CO 3:Use of geometric transformations on graphics objects and their application in composite form.  CO 4:Extract scene with different clipping methods and its transformation to graphics display device.  CO 5:Render projected objects to naturalize the scene in 2D view and use of illumination models for this
34 19BCTE09	Elective III :Mobile Application development	CO 1:Evaluate the architecture and principles of operation of computer systems and networks.  CO 2: Design User Interface and develop activity for Android App.  CO 3: Use Intent, Broadcast receivers and Internet services in Android App.  CO 4: Design and implement Database Application and Content providers.  CO 5: Discuss various security issues in Android platform  CO1: Identify project goals, constraints, deliverables, performance criteria, control needs, and resourc requirements.  CO2: Identify the requirements for the real world problems  CO3: Study and enhance software / hardware skills

CO4: Demonstrate and build the project successfully by hardware requirements coding, emulating an testing Project and 35 19BCTPR1 Viva Voce CO5: Compare and contrast the several existing solutions for application development CO1: Analyze the strategic options for ERP identification and adoption. CO2:Describe the ERP selection process, ERP vendor selection. CO3:Describe the ERP in purchasing perspective Enterprise CO4:Describe the ERP in sales and Distribution perspective Resource CO5:Identify the important business functions provided by typical business software such as 36 19BCTID3 Planning B. SC (MATHS) The area is set to promote and showcase general communication and creativity skills with the learnin potential of students. Students be able to obtain LSRW skills and help to explore knowledge in various genres. Realize their responsibility towards the society centre through ethical, social and human values. Students should be able to know the factors of environment and society which assists them to hold the value of life. Empowering the students to acquire relevant knowledge and skills appropriate to professional activities. Ability to analyze a problem, identify and define the computing requirements for pursuing careers i industry. Identify the applications of Mathematics in other disciplines and recognize the opportunities towards their v gradation.

Attain the core value in their respective area to meet out the global competitive edge.

Enhancing students' overall development and to equip them with mathematical modeling abilities at problem solving skills.

Ability to pursue advanced studies and research in pure and applied mathematical science.

PROGRAMME OUTCOME (PO): Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.

Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them Inculcate Mathematical Reasoning, logical thinking to analyze complex problems and Real world problem to meet the needs of the society.

Develop the high degree mathematical skills and mathematical thinking capacities to face competitive exar and to get placed in reputed IT companies.

Acquire a holistic professional carrier

PROGRAMME SPECIFIC OUTCOME (PSO):

Course

S.No Code

Course Name

Provide opportunities to gain knowledge in Teaching Methodologies and to create an environment th

supports outstanding research.

Course Outcome

Trigonometric formulas and Understand the concept of Inverse Trigonometric functions

Understand the expansions of trigonometric functions and and Inverse Hyperbolic functions.

To analyse the Logarithm of complex quantities and to evaluate summation of series

Core 1:

Trigonometry and Fourier

Apply Fourier series concepts to solve Odd and Even Fuctions.

1 21BMA101 Series

Apply Fourier series concepts to solve Half range Fourier series and change of interval Understand the concepts of curvature and its types, to evaluate total differentiation and to verify Euler'

theorem.

Analyse the types of integration.

		Remember the Reduction formula and Evaluate the double, triple integral and its application.
	Core	Evaluate change of order of integration and change of variables.
2 21BMA102		Apply the concept of Beta, Gamma functions and analyze its properties to evaluate multiple integrals. Understand the concepts of random variables, its types, probability distributions and to Analyze Measure of Central Tendency Apply joint probability mass function, two dimensional distributions, its types Mathematical Expectation and analyze the theorems based on mathematical expectations Remember moment generating functions, properties, and analyze the uniqueness theorem of Mome. Generating Functions, Chebychev's Inequality and Weak Law of Large Numbers.
21BMAA0	Allied 1 :Mathematical	Analyze the correlation and regression co-efficient, properties and its types
3 1	Statistics-I	Apply the concept of Discrete and continuous probability distributions
		Understand the concepts of Analytical Geometry of 2D-Polar Co-ordinates
		To understand and analyze the concepts of Analytical Geometry 3D- Straight lines
	Core 3: Analytical	To apply the concepts and results based bon the properties of sphere.
	Geometry and Vector	To understand and analyze the concepts of Cone and Cylinder
4 21BMA201		Apply the concept of Vector Calculus and Integration of vectors.
		Understand the concept of Binomial Theorem and its application to the Summation of Series
		Understand the concept of Exponential Theorems and its application to the Summation of Series

Analyse the concepts of Logarithmic Series

	Core 4:	Examine the convergence and Divergence of sequences and series.
5 21BMA202		Examine the Absolute Convergence, Cauchy's condensation test and Raabe's test
		To analyze Chi-square, t and F test.
		Understand the concept of Population and characteristics of Estimators.
	Allied 2:Mathematical Statistics-II	Understand the concepts of testing of Hypothesis and Likelihood Ratio Test.
21BM		Analyse the concepts of Method of Estimation and Method of Least Square.
6 2		Examine the Analysis of Variance.
		To understand the concept of forces, resultant forces of more than one force acting on a surface
		To apply the concept of friction, gravity, centre of mass, and centroid
	Core 5 :Statics  Core 6:Differential Equations and	To acquire knowledge about the parallogram of forces, Triangle of forces, varigons theorem of moments To find the resultant of coplanar couples equilibrium of couples and the equation to the line of action of th resultant
7 19BMA301		To understand the concept of equlibrium of strings and to derive the tension at any point
		To examine the general, particular and complete solution of differtial equations
		Understand the concept of ordinary differential equations and to evaluate ODE.
		Understand the concept of partial differential equations and lagrange's method
		To analyze the types of equations solvable for x,y and p

8 19BMA302	Laplace Transforms	To understand and apply the concept of laplace transforms and inverse laplace transforms To create the formulation of LPP and to evaluate various methods of LPP namely Graphica method,Simplex method and Big-M method
		To understand and apply the concept of duality
		To understand and apply the methods of transportation
10DM A CD	SBC I	To solve the assignment problems and travelling salesmen problem
9 1	:Operations Research –I	To analyze the concept of game theory and its methods
		To understanding the concepts of Fuzzy set theory and its basic operations.
		To acquire knowledge about Fuzzy systems ,Fuzzy logic ,quantifiers and inference concepts.
	SBC I:Fuzzy logic and	To understand the concepts of Fuzzy Associate members
19BMASB		To acquire knowledge about covering and compact subsets of a Metric space
19BMASB 10 2	Networks	To apply the back probagation networks to create the perception model.
		To understand and apply the concepts of kinematics and Laws of Motion To understand the conservation of Linear Momentum and apply the concept of the path of the projectile an its characteristic
		To understand and apply the principle of central orbit
	Cara 7	To understand simple harmonic motion and its related geometrical representation
11 19BMA401	Core 7 :Dynamics	To understand the direct and oblique impact of smooth elastic spheres and its related loss of kinetic energy

	Core 8: Fourier Transforms, z	To understand and apply the concepts of Fourier Transform ,Properties and Inverse Fourier Transform. To understand and apply the concepts of Fourier Sine Transform ,Fourier Cosine Transform and its properties.  To understand and apply the concept of Z-Transforms of basic functions and few inverse Z Transform methods.
12 19BMA402	Theory of	To know about Theory of equations ,Transformation of equations and formation of euations. To understand symmetric function of roots ,Sum of the powers of the root's of an equation ,Newton' theorem,Reciprocal equation and Honer's Method.
		To formulate and solve decision analysis problems
	SBC II: Operations Research-II  SBC II:Mathematical Modeling	To solve sequencing problems and plan accordingly
19BMASB 13 3		To acquire knowledge about replacement problems to find the optimal repllacement period
		To construct the network for a project to study the system and to take better decision
		To apply Queneing theory concepts to take optimal decision To understand and apply the concepts of Mathematical Modeling relating to linear and Noon-linear Growt and Decay Models.
		To understand the basic terms for the description of the Population Dynamics and Compartment Models.
		To know about Planetary ,Circular Motion and Motion of Statellites.
19BMASB 14 4		To understand and apply the concepts of Mathematical Modeling through difference equations.
		To understand and apply the concepts of Mathematical Modeling through Graphs and Directed Graphs.
		Understanding the basic concepts of Accounting, Book-keeping&Trial Balance, Subsidiary boooks

	To evaluate the accounts of Sole Trader, Errors and Rectification
	Preparation of Bill of Exchange & its Accomodations
Fundamentals	Preparation of consignment and Joint ventures
15 18BMAID1 of Accounting	Analysis of Bank Reconciliation Statement ,Receipts &Payments ,Income &Expenditure Account
	To understand different methods of Depreciation
	Knowing the concepts of Single Entry System, Statement of Affairs and conversion
	Understanding the departmental Accounts, Branch Accounts excluding Foreign branches
Advanced	To know Hire purchase &Installment system Excluding hire purchse trading account
16 18BMAID4 Accountancy	Getting knowledge about Royalties excluding Sub-lease
	Learns the basic web page design with Formatting
	Learns the web page design with more styles
	Learns the user input validation in cl;ient side
10DMAED D	Learns the user input validation with runtime inception and expression
19BMAED Basics of 17 1 Internet	Learns the advance level of webdesing with frames.
	To understanding the concepts of Real and Complex number systems
	To acquire knowledge about axioms

To understand the concepts of point set topology and to apply the Bolzana Weiertress and Canto
Intersection theorem.

To acquire knowledge about covering and compact subsets of a Metric space

Core 9: Real

18 19BMA501 Analysis-I To understand the concept of cauchy sequence and complete spaces

To find the absolute value, argument of complex numbers and transform the functions in complex plane

To determine the analyticity and differentiability of complex functions

To analysize the convergence of power series

Core

10:Complex

19 19BMA502 Analysis-I

To determine the harmonic finctionand map the functions in complex plane

To eveluate the integral of complex functions

To understand the concepts of set theory, mapping, graphs and its related basic properties and lemma

Understand the basic concepts of Groups

To illustrate the concept of homomorphism, Automorphism and permutation groups

Analyze and demonstrate example of rings some special classes of rings and ideal and homomorphism

Core 11:

rings

Modern

20 19BMA503 Algebra-I

To analyze the concept of syllowis theorem and direcr products

To gain knowledge about the basic structure of C programming and its concept of operators and expressions

To acquire knowledge about managing input and output operations and conditional statements

To understand and apply the looping statements

Core 12:Programmi		Will learn about the concept of arrays, strings and string handling functions
21 19BMA504	•	To apply pointer concepts using arrays
		To develop a program to generate Fibonacci Series.
		To develop a program to find roots of Quadratic equation.
		To develop a program to count the lines ,words and characters in a paragraph
	Core	To develop a program to generate Pascal's Triangle.
22 19BMAP01	13:Programmin g in C-Practical	To develop a program to sort a given set of numbers
		To gain knowledge about solar system and spherical trignometry
		To know about telestial sphere
		To understand the concepts of Dip,Twilight and Geometric Parallex
10016450	Elective I:Astronomy-I	To apply refraction tangent and cassinis formulas
19BMAE0 23 1		To learn keplers laws and relation between true eccentric and mean anamolies
		To solve algebraic and trancentendal equation
		To find the solution of system of linear algebraic equations
		To understand and apply the concept of finite differences
	Elective I:	To identify the problems in interpolation with equal and unequal intervals and solve it

19BMAE0 24 2	Numerical Methods-I	To analyse the relation between divided differences and forward differences
		To solve Numbers ,H.C.F ,L.C.M,Simplification and Decimal Fractions .
		To solve problems in Percentage, Profit and Loss, Ratio and Proportion and Partership.
	ElectiveI:Comp	To solve problems in Time and Work ,Surds and indices,Square roots and Cube roots.
19 <b>RM</b>	etitive Examination	To solve problems in Alligation of Mixture, Average , Area and ODD Man Out Series.
25 3	Skills -I	To solve problems in alender ,Permutations and Combinations and Problems on Ages.
	Core 14: - Real Analysis - II	To understand of continuous function and inverse image of a set
		To examine various continuous function and uniformly continuous functions
		To examine the knowledge about continuity and monotonic functions
		To apply the the differentiability if real finctions and related theorems
26 19BMA601		To acquire knowledge about the fincions of bounded variations
		To apply the notations definitions and properties of Riemann Stieltjes integral
		Expand complex functions in Taylor's and Laurent's series
		To cauchy 's liouville's and morera's theorem to evaluate complex integrals
	Core 15:Complex	Find the singularities and residues of complex functions
27 19BMA602		Evaluate the definite integrals using cauchy's theorem.

Understand meromorphic function and use of fundamental theorem of algebra

To understand the matrix concepts in real life problems

Verify Cayley's Hamilton theorem for a square matrix

Understand the concept of vector space, homomorphisms and isomorhisms

Core 16: Modern

Explain the concept of dual space, inner product vector space and orthogonal vector space

28 19BMA603 Algebra-II

Illustrate the linear transformation and determine the charecteristic roots and vectors

To understand and analyze the concept of mahematical logic and solve the problems for tautology and it

implications

To understand the meaning of graph, types of graphs and trees

To understand and apply for relations and functions concept and solve various problems

Core 17: Discrete

To understand lattices, boolean algebra and boolean functions

29 19BMA604 Mathematics

To understand the concept of formal languages, grammer, FSA and apply its concepts

To gain knowledge about Time, equation of time, convertion of time, seasons and caender.

To know about Annual Parallex and Abberation.

To understand the concepts of Precession and Nutation.

To learn about Moon and Eclipses.

19BMAE0 Elective II:

30 4 Astronomy II To learn about the Planetory Phenomenon and the Stellar system.

		To analyse the problems in numerical differentiation
		To analyse the problems in numerical integration
		To understand and apply the concepts of differece equations
19BMAE0	Elective II:	To evaluate Taylor series, Eulers method, Improved, Modified Euler method and RK method of fourth order
31 5	Methods-II	To examine the numerical solution of first order ODE
		To solve Chain Rule, Work and Wagws and Pipes and Cisterns.
		To solve problems in Simple interest ,Compound interest ,Growth and depreciation,Shares and debentures.
	Elective II :Competitive Examination Skills –II  Elective III :Basics of Java Programming	To solve problems in Time and Distance ,Trains ,Boats and Streams.
10DM 4 E0		To solve problems in Clocks, Area of Plane figure, Volume and Surface area of solid figures.
32 6		To solve problems in Data interpretation and data suffiency
		To know about Java Evolution and overview of Java Language
		To learn Programming style to write simple Java Program
		To learn Constants, variables and Date types in Java
10RM		To learn operators and Expressions in Java
33 7		To learn about Decision making and Branching in Java
		To understand the concepts of graph and the basic theorems on graph theory

To learn about the a	pllication gran	oh theory in	n network and	other related areas
	F			

To understand the concept of tree and their properties

To examine the various isotopes with the help tree concepts

19BMAE0 Elective III :Graph Theory 34 8

To examine the relationship between algebra and graph and analyze algebric graph structures To gain knowledge about the basic structure of C++ programming and its concept of operators and expressions

To acquire knowledge about Functions in C++.

To understand and apply the concepts of Classes, Objects, Constructors and Destructors.

Elective III

Will learn about the concept of Operator Overloading, Inheritance and its types.

35 9

19BMAE0 :Programming in C++

To apply Managing Console I/O operations and to know about Streams and Classes.

To develop a program to generate Fibonacci Series.

To develop a program to sort a given set of numbers.

To develop a program to find the largest and smallest number.

Elective

III:Programmin To develop a program to find the Area of a Circle, Square and Rectangle using Function Overloading.

g in C++-

To develop a program to display the Employee Details. 36 19BMAP02 Practical

B.Sc (Visual Communication)

PO1: Tamil - 1 the area is set to promote and showcase general communication and creativity skills with th learning potential of students

PO2 :English - 1 student should be able to obtain LSRW skills and help to explore knowledge in variou genere.

PO3 :Realize their responsibility towards the society centre through ethical, social and human values.

PO4: Students should able to know the facts of environment and society which assist them to hold the value of life

PO5 :Apply and update their skills towards their employability, entrepreneurship and its sustainability.

PO6: Realise their rewsponsibility towards the society center thorugh ethical social and human values.

PO7 :Recognize the opportunities towards their up gradation and professional development in all spheres.

PO8: Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.

PO9: Attain the core value in their respective area to meet out the global competitive edge.

PO10: To demonstrate and understanding of the history, development and practice of the print media electronic media and the new media.

PROGRAMME OUTCOME (PO): Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.

PSO1:Utilizing the skills of writing, editing, photography, graphics, design and intractive media.

PSO2 : Creatively using appropriate visual tools to professionally communicate important and intresting information in a timely manner to the audience.

PSO3 : A better understanding on communication elements and process. Enable the students to handl still, video camer create graphic and web designs.

PSO4: A better insight on film production and appriciation. Enable the students to produce the media tex as their own.

PROGRAMME SPECIFIC OUTCOME (PSO):
Course

S.No Code Course Name

PSO5: Building upon a solid foundation of visual communication methods and research to expand th quality and effectiveness of their own creative work.

Course Outcome

Understands the need and importance of Communication

Understands the different Levels of communication

Understands the Fundamentals of design

CoreI:

Introduction to Understands the Color psychology and color theory

Visual

1 21BVC101 Communication Understands the Digital histories and new media technologies

Understands the Basic Drawing using Color, Lights and Shades

Understands various perspective, types of shading

Understands pencil sketching

Core Lab I:

Fine Art

Understands how to use water color,draw live model portrait

2 21BVCP01 Production

Understands the Basic of oil painting, and morden art

Understands what are different types of writing in media

Understands what are different Elements of news story

Understands how to write different kind of news stories

Understands how to write for radio industry

IDCI: Writing

3 21BVCA01 for the Media Understands how to write for web industry (News Media)

Understands the Historical development of the press as a media

		Understands the Study of leading newspapers journalists in India since 1947
	CoreII: Media History	Understands the Invention and development of radio as a medium of mass communication
		Understands the Film as medium of mass communication
4 21BVC201		Understands the Development of the new media technologies in India
		Understands how to use designing software and Practical knowledge on Image editing
		Understand the techniques of colour correction and photo manipulation.
	Core LabII:	Understands how to design Logo for a company
	Graphic Arts- Information	Understands how to design print advertisment, Brochure for a company
5 21BVCP02		Understands how to design Visiting card and letterhead for a company
		Understands the growth of advertising in India
		Understands the kinds of advertising in new media
		Understands the Latest trends in advertising
	IDCII: 2 Advertising	Understands the work profile in advertising company or agency
6 21BVCA02		Understand how to conceptualize and create new ideas.
		Understand the importance of various communication theories and models with examples.
		Understand the different Elements of Basic models in communication

To make understand the Role and functions of mass media in society

		CoreIII: Communication	To understand the importance of effect theories in communication
7	7 19BVC301		To get knowledge about the new media and technological oriented communication theories
			Understand the importance of lighting and its type and techniques of aperture photography.
			Students are practically trained to capture special effects such as freeze.
			Learn to take different types of photography.
		Core LabIII: Digital Photography	Understand the role of depth of field and capture the necessary picture with its types
8	19BVCP03		To capture landscape, silhouette techniques and nature photography
			Understand the history of writing and language as a tool of communication
			Understand about readability and its techniques along with the practical exercises
			Develop ability to differentiate newsarticles and feature article writing.
		IDCIII: Creative Writing	Understands about news selection and editorial writing
9	9 19BVCID3		They are trained to write news story creatively and review the already published article
			Understand the basics of web
			Understand about designing the website

They are given exposure about information architecture

10 19BVCSB1	SBCI: Web Designing	Understanda about HTML coding
		Understand the graphics, audio, video on the web
		Understand the Journalism elements.
		Understand about the importance of Photograhy and Journalism aspects
11 19BVCSB2 19BVCED 12 1		Acquire Knoweledge about Journalism and trends in journalism
		Understand about Combination between photography and journalism
		Understand about the Authoring and its features
		Understand the basics of internet
		Understand about the importance of search engine, TCT/IP, m-commerce
		Understand about electronic devices used for e-commerce
		They are exposed to different types of e-commerce, data encryption
		They should know about the information technology act, digital signatures, e governance and its features
		Understand the various television and video file format
		Understand about the video productions and its work nature
	CoreIV: Television	Students are able to develop skills in single and multi camera production.
		They understand about various writing approches for video shoots

13 19BVC401	Production Techniques	They understand about various lighting techniques for video shoots
		Understand about writing scripts for Radio: Documentary, Radio drama and Interview
		Understand about scripts of Television- Formats, Structure, Page breakdowns, Sitcoms
		Understand the fact film, film treatment, shooting script
14 19BVCP04 16 19BVCSB3	SBCII: Web	Differentiating the concept of writers script verses shooting script Understand about feature film: Story, Character, Story treatment, Art of Confrontation, Step outline Dialogue devices
		Understand the concept of CSS: Creating Style Sheet
		Understand the CSS Id and Class
		Learn to Define a Dreamweaver site Using the Welcome screen
		Understand about how web design basics working with thumbnails and wireframes
		Understand about how to Create a template from an existing layout
		Understand what is Social Media Mix
		Understand what are all Cyber social Tools
		Understand about Blogs, Podcast, and Video in new media context
19BVCED	EDCII: Mobile Social Media Marketing	Understand how to use social medias' like Facebook as a Marketing Tool
		Understand what is Pinterest

		Understand and communicate the Fundamental rights, Constitutional provisions and freedom of press.
18 19BVC501	Media, Laws and Ethics	They know the legal aspect of basic rights, obligations and the knowledge of rights to information.
		They should know the media conglomeration towards commercial and public agenda.
		They know about the importance of laws against official and privacy.
		Understand the need of cyber laws related to security concern.
		Understand the history, growth and the development of cinema.
		Know the three stages of production work for the film or a video.
		Know about the elements and the grammar of the films for the production.
		Know the regulations for the film industry and the film association, clubs, film festival etc.,
19 19BVC502	Film Studies	Understand the art of film making and learn about the legends in the film industry.  Create animated sequences from the development of the original concept through design to final film video production.  Create 2D and 3D characters and environments that reflect the integration of graphic clarity, design
		principles, performance principles and theoretical constructs.  Apply skills learned in this class in other areas including motion graphics, stop motion and basi
		traditional animation.  Learn and understand the basic concepts in 2D art, 3D Model, VFX, Storyboard Design, Graphic Design.
	2DAnimation and 3D	Web Design and Game Design.
20 19BVCP05		Emphasis will be on conceptualization, creativity, and visual aesthetics.
		Write short radio script for PSA

Produce the short Radio production.

Trained in speech based recording

Produce live based recoring in the field

Audio

21 19BVCP06 Production Live based recording live interview

Making a material of Non linear editing in editing suite

Create news presentation

Learn and experience the song shooting

Learn the techniques of removing chroma key

22 19BVCP07 Video Editing Learn VFX and EFX

Know about the nature, method and scope of psychological understanding.

Know the process of socialization learning process in the society.

Experience the group types and dynamics of the communication in the society.

ElectiveI:

Social

23 19BVCE01 Psychology

Experience the dimensions in attitude towards the communication process in social change.

Understand the behavioral aspects of the Psychology.

Know the integral part of marketing in media.

Know the process of socialization learning process in the society.

24 19BVCE02	ElectiveI: Integrated Marketing Communication	Experience behavioral aspects and communication method towards advertising and promotion.  Know clear idea about the advertising research.  Know about the promotion of digital marketing techniques.
		Know about famous cinemas all over the world with best director's ideas.  Know the forms and theory of film and cinematography and direction.
		Experience different languages of cinemas all over the world.
	Public	Understand the Indian legends films makers and their film crafts.
25 19BVCE03		know about regional languages of India's famous film making legends.
		Understand about origin and development of public relations field.
		Understand the different techniques which adopted by PR agencies.
		Discuss about internet usage in PR field
		Describe about usage of Social Media in PR field.
		Understand planning and organizing PR activities.
		Know about a brief history of graphic design
		Understand elements of design – Principles of design
		Know about Process of Design – Functions of Design

27 19BVCP08	Package and Design Principles  Compositing and Visual	Understand the process of creative packaging.
		Understand typography – styles and features Color in design
		Discuss about basics of visual effects.
		Understand different types of visual effects
		Learn effects of season.
		Learn special Effects.
28 19BVCP09		Understand different types of tools which is used in visual effects.
		Understand culture in all its complex forms.
		Learn about different cultural theories.
		Discuss about cultural movements in different part of country.
	ElectiveII: Cultural Studies	Deal with Media and Culture and Role of Media in Cultural Development.
29 19BVCE04		Argue about the role of digital cultural in society.
		Give introduction to the event management field.
		Develop mission for Event management.
		Discuss about different types of marketing techniques.
	ElectiveII:	Understand different types of communication process involved in event management.

Event

30 19BVCE05 Management Students are able to learn marketing in organizational environment and socio cultural environment.

Understand Theme, Story and Screenplay of Cinematography.

Students are able to write film review, film appreciation and film criticism.

Learn about Indian cinema history.

ElectiveII: Film Understand major turning points and trends in Cinema.

Appreciation

31 19BVCE06 and Criticism Understand world cinema

Understand basics of political Communication.

Learn about relationship between the press and political Power.

Understand Indian Democracy and political structure.

ElectiveIII:

Understand the contemporary political environment.

Political

32 19BVCE07 Communication Learn about new types of social movements.

Understand basics of Media managements and its nature.

Learn about role of social media in media management.

Learn about elements of design and principles of designs.

ElectiveIII:

Understand the role of marketing in Media management.

Media

33 19BVCE08 Management Learn the role of promo and advertisement in media management.

Learn about the fundamentals of film production.

Understand the fundamentals of film distribution.

Learn about budgeting of films.

ElectiveIII:

Film Understand about film perception.

Distribution

34 19BVCE09 and Marketing Acquire knowledge about different theories regarding films making.

Learn script writing practices, which is the blue print for movie making

Creative in expressing their thoughts& ideas

Project -Short

Learn production team works in the field as cinematography, screenplay, editing & etc...

Film and

Documentary Acquire Practical knowledge can be inculcated from their system of learning

Production with

35 19BVCPR2 Viva Voce Adept to train for the current scenario media industry

## B.Sc (COSTUME DESIGN AND FASHION)

The area is set to promote and showcase general communication and creativity skills with the learnin potential of students.

Students should be able to obtain LSRW skills and help to explore knowledge in various genres.

Realize their responsibility towards the society centre through ethical, social and human values. Students should be able to know the facts of environment and society which assist them to hold the values clife.

Creating the concepts of designing

Understanding various process in manufacturing of textiles

Analyzing various dressmaking techniques

Remembering the context of professionals in textile industry

Creating the field of fashion

PROGRAMME OUTCOME (PO): Developing team building skills and entrepreneurship skill management

Training the students with technical knowledge in fashion designing

Understanding the manufacturing textiles

Enhancing the creativity in fashion designing

Impart managerial abilities

PROGRAMME SPECIFIC

OUTCOME (PSO): Develop entrepreneurial skills

Course

S.No Code Course Name Course Outcome

Apply the design and its types and analyze the knowledge of elements of design, principles of design at

various types of fashion accessories

Analyze various color theories its charts application and dimensions

Organize the principles of color in garment design and standardized color harmonies

Core 1- Summarize the Factors influencing fashion change and types of fashion designers

FashionDesigni

1 21BCD101 ng Role of fashion designers and types of designers in Fashion industry

Recognizing to draw colour charts

Emphasis is given on marking quick sketches to identify the human body and clothing

Organize the Elements of Design in garment design

Core practical

1- Organize the Principles of Design in garment design

FashionDesigni

2 21BCDP01 ng Evaluate freehand modes of drawing, and techniques in relationship to the human body.

Conceptualize seams and seam finishes.

Develop the hems and fullness

Construct the types of plackets in garment construction

CorePractical2- Demonstrate and develop the types of sleeves and binding

ApparelDesigni

3 21BCDP02 ng Categorize the definitions of collars and pockets, types of collars and pockets

Conceptualize the definition and types of fullness, facings and bindings in garment construction.

Summarize the characteristics of a good placket, types of plackets

Construct the types of plackets in garment construction

Allied1- Demonstrate and develop the types of sleeves and yokes ApparelDesigni

4 21BCDA01 ng Categorize the definitions of collars and pockets, types of collars and pockets

Explain the importance of body measurements and understand the length and girth measures i

ladies/gentlemen and the preparation of fabric for cutting

Show the definition, types and methods of pattern making and illustrate the basic bodice and sleeve pattern. Develop the styles created by shifting of blouse darts and explain the standards of a good fit and the solvin fitting problems in a blouse. Outline the pattern alteration and its importance and develop the definition and types of pattern grading t Core 2 the graded patterns of basic bodice and sleeve Explain the definitions and purpose of pattern layout and its types and examine the layouts for asymmetric Principles of 5 22BCD201 Pattern Making fabric with bold design and one way designs. Understanding basic patterns Developing basic patterns Discussing about Layouts Core Practical Outline Dart manipulation 3 - Principles of 6 22BCDP03 Pattern Making Brief on Pattern alteration Emphasis is given on marking quick sketches to identify the human body and clothing Evaluate freehand modes of drawing, and techniques in relationship to the human body. Organize the Elements of Design in garment design Core Practical 4 - Advanced Organize the Principles of Design in garment design Fashion 7 22BCDP04 Designing Organize the Principles of Design in garment design Construct about stitch and seam classification, Know the essential qualities

loops and loop spreader, Types of feeding and mechanisms

Examine about lower and upper threading of sewing machines, stitching mechanisms of sewing machin

	Allied 2 -	Spreading technology of garment industry, marker plan, requirements of marker planning. Utilize the marker efficiency in fabric cutting, Importance of grain line
8 22BCDA02	Sewing Operation	Explain the definition and function of fabric cutting, the cutting
		Various types of pressing in textiles industry and types of sewing threads
		To gain the knowledge on origin of costume and history of Indian costumes and textiles.
		Acquired knowledge on north Indian costumes.
	Core Paper -V - Indian	Examine costumes and jewelry of south India.
Historie	Historic Costumes and	Gained knowledge on north Indian jewellery
9 19CDF301		Understands the traditional embroideries of India.
		Acquired the elements of design and application of structural and decorative design
		Examine the principles of design and application of principles on the garment.
		Gained knowledge on fashion terminology and theories of fashion adoption.
	Core Paper  -VI- Fashion	Learnt on colour theories and standard colour harmonies.
10 19CDF302		Understand the concept on designing dressing for unusual figures and fashion accessories.
		Gained knowledge on prang colour chart
		Learnt to illustrate elements of design in a garment
		Learnt to illustrate principles of design in a garment

		Core Practical – III Fashion	Understands the usage of colours in a garment
	11 19CDFP03 Art		Understands to apply colours in principles of design, designing madeups.
			Gained ample of information on spinning and process flow in spinning mills.
			Understands the fiber and its classifications
			Gained knowledge on yarn formation.
		Core Paper- VII- Fiber to	Understands various types of weave patterns.
	12 19CDF303		Acquired knowledge on non-wovens. Understands to identify natural and man made fibers through microscopic method, natural and man mad
			fibers through flame test, natural and man made fibers through chemical test, yarn counting through warp Understands to identify twist of yarn using twist tester, weight of the fabric through quadrent balance fabric count by raveling and pick glass method, course length and loop length of knitted fabric,
			Understands to identify test of shrinkage
		Core Practical – IV – Fiber to	Acquired knowledge on test of absorbancy.
	13 19CDFP04		Acquired knowledge on the tensile strength of the fabric.
			Acquired knowledge on factors influencing fashion changes. Gained the knowledge on fashion cycles, fashion terminologies, forecasting and fashion services ar resources.
		IDC – III	Gained the knowledge on visual merchandising, merchandising presentation and fashion shows.
		Fashion and	Understands on Indian fashion designers

14 19CDFID3	Clothing Psychology	Acquired knowledge on world fashion centers and more information on fashion week
		Understands on draping and dressing forms
		Gained knowledge on draping basic front and back
		Understands on draping basic skirts.
	SBC- I Basic Draping	Acquired knowledge on draping different types of yokes
15 19CDFSB1		Acquired knowledge on draping different types of collar.
		Gained the knowledge on fundamentals of photography
		Acquired knowledge on types of camera and its functions
		Understands on sources of light, kids of filter and colour photography.
	EDC1 :Fashion	Acquired knowledge on films and accessories used in photography.
16 19CDFED1		Gained knowledge on digital photography.
		Gained ample of information about weaving and weaving unit.
		Understands the various types of weaving patterns
	Core Paper	Acquired knowledge on intricate designed weave patterns
	-VIII- Fabric Structure and	Gained information on pile fabrics
17 19CDF401	Design	Gained knowledge on double cloth weaving and stitching

		Analyzing plain weave and its derivatives
		Gained the knowledge on twill weave and its derivatives
	Core Practical	Determine knowledge on satin weave, sateen weave, terry pile structure
	– VI Fabric	Gained the knowledge on analyzing honey comb weave, huck a back weave,
18 19CDFP06	Structure and 19CDFP06 Design.	Analyzing extra warp and weft figuring, double cloth.
		Gained knowledge in processing of fabric
		Acquired knowledge on dyes and its classifications
		Understands the types of dyeing methods and machines.
	Core Paper- IX - Textile	Gained various types of aesthetic finishes to the fabric.
19 19CDF402		Gained knowledge on printing and its methods.
		Acquired knowledge on preparing samples for textile processing
		To gained knowledge on pre treatment process in textile.
		Determine the dyeing process by natural dyeing.
	Core Practical  – VII – Textile  Processing	Acquired knowledge on preparing samples for different types of dyeing.
20 19CDFP07		Examining the various method of printing.
		Gained the practical knowledge on constructing saree petticoat

		Recognize different styles in constructing skirts
	Core Practical	Gained the practical knowledge on constructing saree blouse
21 19CDFP05	-V- Women's Garment	Experiment various styles in constructing middi top
		Compare different style in construction of lehenga, salwar & kameez
		Gained the knowledge on quality control and standards in the textile industry. Acquired the knowledge on various specifications, training the quality control personnel, governme contacts, packing and warehousing in the garment industry.
	IDC – IV-	Gained the knowledge on various functions of production control.
22 19CDFID4	Garment Quality and	Understands the types of control forms.
		Learnt on types of cost control and break- even charts.
		Acquired the skill on doing basic embroidery stitches.
		Doing basic machine embroidery stitches, tassels and fringes.
	SBC - II	Gained the knowledge on practicing traditional embridery stitches, belts and its types.
	Surface embellishment practical	Experiment various styles in applique work, bows and its types, bows and its types.
23 19CDFSB3		Practicing smocking work, aari work, mirror work, fixing stone on the fabric.
		Learnt on visual merchandising, presentation and garment display.

Gained knowledge on store design, mannequins and fixtures for selection.

Understand the store exterior and interior planning and trade organization sources.

24 19CDF501	Core Paper –X- Visual Merchandising	Acquired knowledge on display techniques, planning. Creativity in show room displaying. Acquired knowledge on different approaches in visual merchandising, information technology, safe factors.
		Gained the knowledge on computers in fashion industry
		Acquired the knowledge on pattern making and grading using computers.
	Core Paper– XI	Learnt on textile designing.
	Computers in the Garment	Acquired knowledge on 2D and 3D forms
25 19CDF502		gained knowledge on application of computers in apparel manufacturing industry.
		gained the practical knowledge on constructing S.B.Vest and T-Shirt.
		gained the practical knowledge on constructing Slack Shirt and Full sleeve shirt.
	Core Practical	gained the practical knowledge on constructing Kalidhar kurtha.
26 19CDFP08	–VIII- Men's Garment	gained the practical knowledge on constructing Pleated pant and House Coat.
		gained the practical knowledge on constructing Gained the knowledge on designing motif, embroidery design, and chest prints for T-shirt using coral dra software.
		Gained the knowledge on designing children's, women's and men's garments using coral draw software.

Core Practical- Gained the knowledge on designing logs and care labels for branded companies using coral draw software.

	IX- Computer	
27 19CDFP09	Aided Design-	I Gained the knowledge on preparing production planning and scheduling using coral draw software.
		Gained the knowledge on technical textiles its types and application
		Get the knowledge on medical textiles.
		Get the knowledge on protective textiles.
	Elective I Functional Clothing	Get the knowledge on sport wear and how textiles play a vital role.
28 19CDFE01		Get the knowledge on smart and innovative textiles.
		Acquired knowledge on types of knitting process.
		Understand the knitting elements, advantages and disadvantages
	Core Paper– XII - Knitting	Acquired knowledge on weft knitting classification and its properties.
29 19CDF601		Acquired knowledge on warp knitting classification and its properties.
		Understand about the knitted fabric detects and its care and maintenance.
		Acquired the knowledge on identifying single jersey and double jersey fabrics knitted fabrics.
		Acquired the knowledge on identifying rib and interlock fabric of knitted fabrics.
	Core Practical -	Acquired the knowledge on identifying different types of warp knitted fabrics.
30 19CDFP11		Acquired the knowledge on analyzing the defects on the knitted fabric.
		Acquired knowledge on designing garments and application of color harmony in the garment.

			-X-Computer Aided Design -	Learnt to design garment for men, women, and children for various occasions and seasons.
	31 19CDFP10		•	Acquired knowledge on preparing different types of patterns, pattern grading and photo editing.
				Gained knowledge on merchandising terminologies.
				acquire knowledge on functions of merchandising.
			E lective -II	gained knowledge on costing in apparel industry.
			Fashion Merchandising	learned on how to analyze consumer.
	32 19CDFE06	and Marketing.  Elective III- Export	The acquire the knowledge on product development, customer profiles and product life cycles.	
			Gained knowledge on cost estimation of yarns, fabrics and their finishes.	
				Learnt on apparel export promotion.
				Acquire knowledge on document related to goods.
	33 19CDFE08		Gained knowledge on import license.	
			Analysis and Documentation	Gained knowledge on pre shipment inspection and quality control.
E	3.SC	CECS		
				The area is set to promote and showcase general communication and creativity skills with the learnin potential of students.
				Students should be able to obtain LSRW Skills and help to explore knowledge in various genres.

Learnt to design garments on principles of design.

Realize their responsibility towards the society center through ethical, social and human values. Students should be able to know the facets of environment and society which assist them to hold the value of life.

Construct, choose and apply the techniques, resources and modern engineering tools required for Electronic and Communication Engineering applications

Applying the knowledge in designing and analyzing the various application oriented electronic products.

Create, select and apply appropriate techniques, resources and tools to invent innovative products.

Acquire required mathematical and programming skills to formulate and solve the practical problems.

Ability to apply the skills to become an entrepreneur.

PROGRAMME OUTCOME (PO): Explore new ideas and widen the knowledge through lifelong learning.

Apply the knowledge of Science, mathematics and fundamentals to solve problems in the domain

Electronics and communication field.

Comprehend the impact of Technical solutions in a global, economic, environmental and societal context.

Apply professional and ethical principles and function with responsibility.

PROGRAM SPECIFIC OUTCOME (PSO) COURSE COURSE S.NO CODE NAME

Design, develop and test electronic and Embedded Systems for applications with real time constraints. Apply knowledge of Electronics and Communication principles in multidisciplinary environment at projects.

COURSE OUTCOME

Understand the passive devices and its operations.

Understand and apply the Laws and theorems used in the circuits.

		To analyze the AC and DC Circuits Fundamentals.
1 22BES101	Core 1- Principles of Electronics	To analyze the passive devices and its operations.
		Apply the Special diodes and in applications.
		To understand the basic concepts of components.
		Apply the concept of electronic and electric circuit's law.
		To understand the electronic and electric circuit's theorem.
2 22BESP01	Core Practical I  - Principles of Electronics	To Analyze the characteristics of various diodes.
		To design and analyze the circuits.
		Understand the signal amplifiers
		Understand and apply laws of power amplifiers
	Core 2-	To analyze the feedback amplifier Circuits Fundamentals
	Electronic	To analyze the oscillators
3 22BES201	Circuits and Its Applications	Apply the wave shaping circuits
		Design the convertor circuits.
		Verify the rectifier circuits using diodes and implement them using hardware.

Analyze the concepts of Oscillator circuits.

	Core Practical 2- Electronic	Design the multivibrator circuits.
4 22BESP02		Understand the amplifier circuits.
		To understand the various number systems and simplify the logical expressions using Boolean functions.
		To understand the designing of combinational and sequential Circuits.
		To analyze the simulation of digital circuits using software package.
	Core 3- Digital	To apply digital functions into the various synchronous and asynchronous circuits.
5 21BES301	E	To analyze and apply the digital simulation for development of application oriented logic circuits
		To remember the human cell structure and various bioelectric signals.
		To understand the physiological transducers and Bio medical recorders.
		To analyze the diagnostic and therapeutic equipments.
		To apply bio medical techniques in advancement medical instruments.
6 21BES302		To analyze the functions of different Electronic measuring instruments
		To Understand the block diagram of communication system.
		To understand the concept of noise performance of particular communication system.
		To analyze the Amplitude, Frequency modulation and demodulation techniques.
		To apply the formulae of Pulse modulation in analog communications.

Core 5- Analog

7 21BES303 Communication To design the different types of transmitters and receivers used for particular applications.

To understand the basic digital theorems and its application.

To understand the design of digital circuits using IC's.

Core Practical

To design the amplifier for Bio signal measurements.

3- Digital

Electronics and To Analyze the recording of bio signals.

Medical

8 21BESP03 Electronics

To analyze the Special function ICs and its application.

Remember the concept of programming languages and understand the importance of C, its data types an

input output statements.

To understand selective statements and iterative statements and implement them in programs.

Analyse various data handling mechanism through arrays.

Apply hetrogenious data in structures, unions and analyse pointers.

Allied 3 – C

9 21BESA03 Programming Analyse the importance of memory management and files and understand the concept of preprocessor.

To understand the various Types of PCB

To understand the designing of Layout Parameters and Artwork.

To analyze the Laminates and Photo Printing

SBC 1 – PCB To apply functions into the various Etching and Soldering.

Fabrication and

10 21BESSB1 Designing To apply the CAD and PCB Software.

To understand the concepts of Visual Bas	To understand	the	concepts	of '	Visual	Basic
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To understand the variables, data types and control structures

To analyze and designing of forms

To apply functions into the various control arrays

SBC 1 – Visual

11 21BESSB2 Basic To apply the database concepts

To understand the concept of IC Fabrication.

To comprehend the concepts of Op-Amp.

To analyse the application of Op-Amp with its application.

Core 6 -

Linear To analyse the principles of PLL and Timer Circuits

Integrated 12 21BES401 Circuits

To familiarize the concept of Special function ICs and its application.

Remember the concept of Microwave transmissions and understand the Microwave devices.

To understand the working concepts of Microwave circuits and its applications.

Analyze the various types of antennas for wave propagations.

Core 7-

Microwave and Apply the Frequency bands to the selective antennas for the selection process of efficient communication.

Antenna

13 21BES402 Propagation Analyze the importance of Electromagnetic waves for propagations.

To understand the building blocks of digital communication system.

Analyze the performance of a Shannon's digital communication system in terms of error rate and efficiency. Perform the time and frequency domain analysis of the signals in a digital communication system an various modulation Techniques

To understand and analyze the concept of multiplexing and multiple access.

Core 8- Digital

14 21BES403 Communication Analyze Performance of optical fiber communications.

The ability of visualization and practical implementation of Amplitude modulation techniques

The ability of visualization and practical implementation of Frequency modulation techniques

The skill to analyze and implement analogue to digital converters like PCM

Core Practical

4- Analog and

The ability to design PWM, PPM systems and techniques with desired specifications

Digital

15 21BESP04 Communication The ability to design passes Analog & Digital demodulation techniques

Remember the mathematical concepts of performing addition, standard deviation palindromes, print

numbers and implement them in C program

Understand the concept of bubble sort and arranging the set of numbers.

Understand factorial and Armstrong numbers.

Allied

Analysing matrix addition using two dimensional arrays and also understand fibonocii sequence. Practical 4 - C Analyse the concept of finding the largest and smallest among given set of numbers and also to find sir

16 21BESA04 Programming series.

To understand the Fundamental concepts of Automotive.

To understand the working concepts of Ignition system.

		Analyze the microsystem manufacture concepts.
	SBC 2  -Automotive	Analyze the various sensors of micro system applications.
17 21BESSB3		Apply the Automotive techniques in control systems.
		To understand the concept of ASP.net frame work.
		To understand the Concepts of webforms standard controls.
		Analyze the concept of C#.
		Analyze the various exception handling concepts.
18 21BESSB4	ASP.Net	Apply and designing the pages and themes.
		To discover how a web and browser does works
		Develop skills in analyzing how to create html page with basic tags.
		To create lists, table representation and linking of pages
	OEC-2 Web	To apply different styles for the webpage using properties.
19 21BESOE1		To develop a dynamic webpage by the use of java script.
		To understand the architectural overview of 8085 Microprocessor.  To understand the Instruction set and addressing modes of 8085 Microprocessor assembly language programming.
	~ ^ ^^~	To analyze the 8085 microprocessor programming concepts.

Core 9-8085

Microprocessor To analyze the 8085 interfacing concepts and peripheral devices .

and Its

20 19BES501 Applications To analyze and apply the 8085 microprocessor real world applications.

To understand the basic concepts of various thyristors.

To understand and analyze the various methods of triggering and commutation concepts.

To study and analyze the controlled rectifiers and Inverters.

To study and analyze the cyclo converters and choppers.

Core 10- Power

21 19BES502 Electronics To study the various product applications.

Discuss the cellular system design and technical challenges.

Analyze the Mobile radio propagation, fading, diversity concepts and the channel modeling.

Analyze the design parameters, link design, smart antenna, beam forming and MIMO systems.

Core 11-

Advanced Analyze Multiuser Systems, CDMA, WCDMA network planning and OFDM Concepts.

Wireless

22 19BES503 Communication Summarize the principles and applications of wireless systems and standards

To understand the basic arithmetic operations of 8085 Assembly Language Programming.

To understand the number conversion programming concepts.

Core Practical

To analyze the data transfer programming concepts.

5-

Microprocessor To Analyze the programming for interfacing peripherals with microprocessor.

23 19BESP05	and Its Interfacing	To analyze 8085 real world applications. Understand the amplifier circuits.
		The ability of visualization with various power circuits.
	Core Practical	The ability of visualization and practical implementation of amplification techniques
	6 – Linear Integrated	The skill to analyze and implement oscillator circuits.
	Circuits and Power	The ability to design timing circuits with desired specifications
24 19BESP06		The ability to design voltage regulatory circuits.
		Classify various types of Digital Number systems and Boolean algebra.
		Illustrate Combinational logic
		Design and implement the digital circuit using combinational logic.
25 19BESE01	Elective I : Digital System Design	Design and implement the digital circuit using sequential logic. Solve the arithmetic expressions using memories and programmable logic devices and implement memo units
		Understand the fundamentals of PLC
		Learn the PLC'S instruction.
	Elective I:	solve the problems using arithmetic and logic instructions
	Programmable Logic	Analyze Timer, counter and manipulation instructions
26 19BESE02	_	Solve the problems in real time application

To understand	+la a	functional		of com	mustan hand	
10 understand	une	Tuncuonar	Overview (	oi com	puter naru	ware.

To understand the Mother board functions.

To analyze the functions of CD, DVD.

Elective I:

Computer

To analyze the interface and functions of Hard disk controller and printers.

Hardware and 27 19BESE03 Maintenance

To analyze trouble shooting concepts of Computer hardware and software.

To understand the architectural and functional overview of 8051 Microcontroller.

To understand the Assembly language programming concepts in 8051 Microcontroller.

To analyze the 8051 C programming and Timer programming.

Core 12-8051

Microcontroller To analyze the serial communication with the help of 8051 based serial standards.

and Its

28 19BES601 Applications To analyze and apply the 8051 interfacing concepts in real world applications.

To understand the functional overview of Embedded Systems.

To understand the PIC 16F877A architecture.

To analyze the Special features of PIC 16F877A CPU.

Core 13-

Embedded

To analyze the Process and Its Synchronizations.

Systems and Its

29 19BES602 Applications To analyze Embedded system real world applications with case studies.

To understand the basic arithmetic and logical operations of 8051 Assembly Language Programming.

T 1 1 1 1		•
To understand the number	r conversion	programming concepts.
10 001001000100 0110 11001110 0		programming control is:

Core Practical To analyze the smallest and largest number in an array concepts. 7-Microcontroller To Analyze the programming for interfacing peripherals with microcontroller. and Its 30 19BESP06 Interfacing To analyze 8051 real world applications. Understand the fundamentals of Digital Image Processing. Learn the image enhancement techniques in Spatial and Frequency Domain. Model the Noises, Restoration and Compression. Elective II – Advanced Analyze segmentation and compression techniques. Digital Image 31 19BESE04 Processing Apply various algorithms for Colour Image Processing. To understand the basic concepts of multimedia. To understand the multimedia tools and operations. To analyze the animation concepts. To understand and Analyze the working functions of internet. Elective II – To analyze multimedia applications. 32 19BESE05 Multimedia Acquire knowledge of the structure and model of the Java programming language

Create Java programs that solve simple business problems.

		Explore various programming paradigms as well as principles of building object-oriented software
	Elective II – Java	Develop Java applications with graphical user interface (GUI).
33 19BESE06		Implement the Concept of streams and file handling.
		Understanding of basic fundamental aspects of robotics.
		Gain the enough knowledge about various robot technologies.
		Analyze the robot motion and controlling mechanism.
	Elective III – Principles of	Analyze and understand the various robotic sensors.
34 19BESE07	*	Gain the knowledge towards the various applications of robotics.
		Discuss about Digital Television Technology
		Analyze the transmission of Digital TV signals
	Elective III – HDTV and	Understand the concept of advanced television systems
	Real Time Security	Analyze HDTV systems and standards
35 19BESE08	•	Analyze and resolve security issues in network and computer systems to secure and IT infrastructure.
		Understand the basic CMOS circuits and technology.
		Understand and apply the techniques for chip design using programmable devices.
	Elective III –	Understand and apply the sequential logic design.

**Fundamentals** 

of VLSI Analyze the sub systems design.

Technology

36 19BESE09

Apply and analyze the digital system using Hardware Description Language

## B.Sc(CATERING SCIENCE AND HOTEL MANAGEMENT)

The area is set to promote and showcase general communication and creativity skills with the learnin potential of students

Students should be able to obtain LSRW skills and help to explore knowledge in various genres

Realize their responsibility towards the society centre through ethical, social and human values Students should be able to know the facts of the environment and society which assist them to hold the values of life

Understand the fundamentals of Hospitality Industry, Food production operations, Food and Beverag Service, Housekeeping and Front office operations

Apply professional skills required for the Hospitality Industry

Utilize knowledge acquired for superior performance and value to customers Obtain operational and supervisory positions within the Hospitality sector such as Hotels, Resorts, Cruisa lines, Restaurants and Catering establishments

To run their own business entity

PROGRAM OUTCOME: Understand the techniques of advanced technologies used in hotel industry

To acquire knowledge in the hospitality domain to excel in professional career and social life.

To adapt to evolving changes in real time professional career.

To demonstrate professional competence in the operational areas of the Hospitality Industry.

			To understand the functions of non-core departments like accounts, human resource, etc.
PROGRAM SPECIFIC OUTCOME Course		FIC	To utilize the acquired knowledge to manage and evaluate functional systems in hospitality industry
			To demonstrate professional competence in the operational areas of the hospitality industry.
S.No		Course Name	Course Outcome
			To develop basic ethics and skills needed for kitchen course.
			To develop knowledge of kitchen hierarchy and inter departmental relationship.
			To acquire knowledge on terminologies used in methods of preparation.
		Core 1- Food Production and Patisserie-I	To understand the methods of cooking.
1	21BHM101		To understand about the various cooking materials and their uses.  To impart knowledge on basic ethics and relationship with in and out of catering industry of Food an Beverage personnel.
			To impart knowledge about staff organization and Food and Beverage outlets.
			To acquire knowledge on operational equipments.
		Core 2- Food and Beverage	To develop knowledge about ancillary department and preparation of restaurant service.
2	2 21BHM102	_	To develop menu knowledge.
		To impart basic ethics and functions of housekeeping department.  To develop knowledge planning of housekeeping department and cleaning and maintenance of guest roc and public area.	

To acquire knowledge on management of linen, uniform, and pest control.

Core 3-

To develop knowledge on laundry services.

Housekeeping 3 21BHM103 Management

To acquire knowledge on interior designing.

To develop basic skills on handling equipments and basic kitchen etiquettes.

To develop knowledge on identification of raw materials and knife handling skills.

To develop basic knowledge on preparation of stocks and sauces

Core Practical1-

Food

To develop knowledge and skill in framing menu and preparation of basic Indian cuisine dishes.

Production and

4 21BHMP01 Patisserie -I

To develop knowledge and skill in framing menu and preparation of basic Continental cuisine dishes. To acquire knowledge and apply skills required for handling operational equipments and tools by foc service personnel.

To acquire knowledge on compiling and allocation of menu

To develop skill on service of various courses of menu.

Core Practical2-

Food and

To demonstrate skill in handling guest related service.

Beverage

5 21BHMP02 Service -I

To demonstrate the proper cover laying of presentation of bills.

To acquire basic knowledge on self awareness, creativity and goal setting.

To acquire knowledge on inter personnel skills.

To develop a knowledge on time management and personality development.

21BHMA0 6 1	Allied 1 : Hospitality Personnel Development	To develop knowledge on group discussion and body language.
		To acquire knowledge about interviews and basic ethics on communication skills.
		To acquire knowledge on vegetable cookery.
		To develop knowledge on dairy products.
		To understand about fish and meat cookery.
	Core 4 - Food Production and	To understand about various basic starters and sauces.
7 21BHM201		To understand about Indian masalas and modern garnishes.
		To understand about breakfast services.
		To recognize different styles of services.
		To acquire knowledge about non alcoholic beverages.
	Core 5- Food	To understand about billing and checking and tobacco.
8 21BHM202	and Beverage Service-II	To acquire knowledge about cheese and sweet courses service procedure.
		To develop basic skills on handling equipments and basic kitchen etiquettes.
		To develop knowledge on identification of raw materials and knife handling skills.
	Core Practical 1- Food	To develop basic knowledge on preparation of stocks and sauces
		To develop knowledge and skill in framing menu and preparation of basic Indian cuisine dishes.

	Production and	
9 21BHMP01	Patisserie -I	To develop knowledge and skill in framing menu and preparation of basic Continental cuisine dishes. To acquire knowledge and apply skills required for handling operational equipments and tools by foc service personnel.
		To acquire knowledge on compiling and allocation of menu
	Core Practical 2 - Food and Beverage Service -I	To develop skill on service of various courses of menu.
		To demonstrate skill in handling guest related service.
10 21BHMP02		To demonstrate the proper cover laying of presentation of bills.
		To identify the layout of guest rooms and cleaning agents
		To apply basic skills about areas of cleaning.
	Core Practical	To understand sequence of cleaning and polishing
	3 - Housekeeping	To analyze the techniques of situation handling
11 21BHMP03	1 0	To develop skills in stain removal, bed making and flower arrangement.
		CO-1 To acquire knowledge about Indian Spices, Quantity cooking, Institutional and Industrial Catering.
		CO-2 To understand the Learning about Indian Breakfast dishes, basic gravies, Indian and Pulaos. CO-3 To understand and learn about Learning the regional cuisines of South India, Ingredients characteristics, Festival dishes of India
	Core 6 - Food Production and	CO-4 To acquire knowledge about other regional cuisines of India Ingredients, characteristics, Festiva dishes of India
12 19BHM301		CO-5 To acquire knowledge about on Tandoor cooking, Ingredients and Marinations.

	CO-1 To acquire theoretical knowledge of clasification of alcholic beverages and wine production. CO-2 Aquire good knowledge in Classification of French wines and their important, classification of Wine of Germany CO-3 To Acquire knowledge of wines of Italy and their classification. Understand the importance of wir and food pairing with examples.
Core 7- Food and Beverage	CO-4 Beer manufacturing and calculation of alcholic percentage.
13 19BHM302 Service-III	CO-5 Production of Whisky, Brandy, Rum and Vodka and their unique products. CO-1 To develop knowledge on types of hotels, rooms, and guest. Understand the attributes of the fror office staff.
	CO-2 To acquire knowledge of reservations and front office equipments used, protocols and procedures i reservations.
	CO-3 To acquire knowledge on various checkout procedures, types of account settlement and occupancy.
Core 8- Front Office 14 19BHM303 Operations	CO-4 To develop understanding on Guest relation and social skills and Lobby hierarchy and duties. CO-5 To acquire knowledge on various Front office accounting Systems, guest account cycle and forecasting and its formats.
	CO-1 To acquire knowledge about bakery raw materials, weighing and measurements and equipments used. CO-2 To develop knowledge on basic Bread and artisanal bread, various cake mixing procedures and thei faults.
	CO-3 To acquire knowledge about different icings, petit fours and hot and cold desserts.
Core 9 - Bakery and	CO-4 To acquire knowledge about different basic pastes and their products reasons and faults.
15 19BHM304 Confectionery	CO-5 To acquire knowledge about types of meringue, cookies and cooking for special needs.
	CO-1 To acquire professional skills in Bakery and Confectionery.

		CO-2 To develop professional skills in making Breads, Buns.
19BHMSB 16 1	Practical - Bakery and Confectionary	CO-3 To acquire skill in making Various Pastes, Tarts, and Cookies.
		CO-4 To develop skill in making , Cakes, Sponges, Icings
		CO-5 To the skill in making Pies, Puddings, pastries
		CO-1 To demonstrate Skill about Basic Icing making
		CO-2 To abl to demostrate Skill in application of different Icings in finished food Products
		CO-3 To exhbit Skills in making decoration with Different Icing
10DIIMCD	Practical - Cake Icing and Decoration	CO-4 To develop skill on various chocolate garnishes.
17 2		CO-5 To develop skill to work with butter cream.
		CO-1 To acquire knowledge on Chinese cuisine, Sri Lankan cuisine
		CO-2 To acquire knowledge on Japanese cuisine, Italian cuisine
		CO-3 To acquire knowledge on Spanish cuisine, French cuisine, Mediterranean cuisine.
	Core 10 - Food	CO-4 To acquire knowledge on Scandinavian cuisines, United Kingdom.
18 19BHM401	Production And Patisserie-IV	CO-5 To develop knowledge about Mexican cuisine , Plate presentation and Fusion Cuisine.
		CO-1 To acquire theoretical knowledge on Vermouth and Liquers.
		CO-2 To aquire good knowledge on bar setup and its components.

		CO-3 To Develop knowledge to prepare the beverage list.
19 19BHM402	Corell- Food and Beverage	CO-4 To acquire knowledge about Cocktails and Mocktails recipies.
	•	CO-5 To gain knowledge on mixology, prepration and its service.
		CO-1 To develop skill and techniques about tandoori cooking.
		CO-2 To develop skill and techniques in prepration of various tandoori dishes.
	Core Practical	CO-3 To aquire technical skills on preparation of regional Indian cuisine dishes.
	4 - Food Production and	CO-4 To aquire technical skills on preparation of International cuisine dishes.
20 19BHMP04		CO-5 To develop skill and ability to design and prepare a five course menu.
		CO-1 To develop skill and techniques in Service of Alchoholic Beverages.
		CO-2 To develop skill and techniques in Service of liqueur coffee and spirit coffee.
	Core Practical 5 - Food and	CO-3 To develop skill and techniques in Service of Apertif
21 19BHMP05		CO-4 To develop skill and techniques in Compiling wine list.
	Beverage Service -II	CO-5 To develop skill and techniques in Service of Wine.
		CO-1 To deveolpe skill in Situation handling and guest complaints. CO-2 Aquire good Skill in Reservation procedure, identification of rooms through the use of Convention and Destiny Charts.
		CO-3 Develope Skill about the following staffs Doorman, Bellboy, Receptionist,

	Core Practical 6 - Front Office	CO-4 To deveolpe skill in how to handle telephone
22 19BHMP06		CO-5 Aquire good ettiquets in Hotel front office.
		CO-1 To develop knowledge about design and layout planning of a food a facility. prospectus to learn about the intial set up
		CO-3 To develop knowledge about functional Planning and atmosphere to learn about the details i organising the facility.
19BHME0	Food service	CO-4 To aquire knowledge about work place design and Equipment requirements.
23 1	Facilities and planning	CO-5 To aquire knowledge about space requirements for various establishments
		CO-1 To develop basic knowledge on Fast food operations Histroy
		CO-2 To understand the different Concept of Fast food Joints
		CO-3 To acquire knowledge about equipments, Control measures and types of food.
10DHME0	Foot food	CO-4 To develope knowedge on Selling techniques.
19BHME0 24 2	Operations	CO-5 To explore case studies.
		CO-1 To develop understanding about Safety Perspective
		CO-2 To understand about Varoius Mirobes Causing Contamination
		CO-3 To understand the importance of food safety in hotel.
		CO-4 To aquire Knowledge on Food Hygiene revelat to various Products.

19BHME0 25 3	Food Safety Microbiology	CO-5 To develope Understanding about food bourne Infection, Causes of Toxicity and FSSAI Regulations CO-1 To gain knowledge about the types and motivation of travel by learning about the Principles o Tourism
		CO-2 To learn the functions of travel agents and their role.
		CO-3 To develope knowledge of the rules and regulations of travel pertaining to government organisations.
26 19BHMID4		CO-4 To understand the role of tour operators and travel requirements to travel around the world. CO-5 To develop knowledge on various technology, tourism sectors and handling foreign Currency an acquire information on latest trends.
		CO-1 To devlope the ability to identify Equipments and Raw materials used in Garde Manger
		CO-2 To develop the skill in carving from vegetable, fruits, thermocol, butter sculpture and Ice block. CO-3 To learn the skill to prepare cold egg, chicken and red meats dishes and prepare plate and mirro presentation
19BHMSB	Practical	CO-4 To be able to design cold food as per custormer needs in hotel.
27 3		CO-5 To develop skill in handling Hot and Cold food with focous on temperature modifications.
		CO-1 To develope the ability in making of Indian Milk Sweet.
		CO-2 To develope skills in making of Indian sweets with Various Raw Materials
		CO-3 To be able making of Indian Snack made with different raw materials
10DHM2D	Practical - Indian Sweets	CO-4 To make famous south indian sweets.
28 4	and Snacks	CO-5 To make famous south indian snacks.

		CO-1 Acquire knowledge about Garde manger kitchen and its operations
		CO-2 To aquire a good understanding about Force meat, Panada, Compound butters, Marinade and Brine.
29 19BHM501 30 19BHM502 31 19BHM503	Production and Patisserie-V  Core13- Food and Beverage Service-V  Core14- Food and Beverage	CO-3 Develop Knowledge about Chaud Froid, Ice carving.
		CO-4 Understand about types of garnishes and left over utilization.
		CO-5 Develop Knowledge about food production Operations
		CO-1 Aquire knowledge on Gueridon Service and its importance.
		CO-2 To develop knowledge about Function catering
		CO-3 To understand about Outdoor catering and specialized forms of service
		CO-4 To develop understanding about Budgeting and Staff organisation.
		CO-5 To gain knowledge about Mixology.
		CO-1 To develop an understanding about Food & Beverage functions
		CO-2 To aquire a good understanding on purchasing of food & beverages and related details
		CO-3 To understand about Storing & issuing relates to Food and beverage control.
		CO-4 Develop Knowledge about different cost factors involved.
		CO-5 Aquire knowledge on menu engineering and menu merchandising.
		CO-1 To acquire practical skills in advanced professional Continental cuisine

		CO-2 To develop skills on preparation of Salad, Soups.
	Core Practical 7 - Food Production and	CO-3 To aquire skills in Preparation of Egg and Pasta dishes.
		CO-4 To develop skills on preparation of Fish, Meat and Chicken dishes.
32 19BHMP07		CO-5 To gain Skills in the preparation of savoury and desert dishes.
		CO-1 To gain Skills on cooking and carving at table.
		CO-2 To develop skills on service of Alcoholic beverages.
	Core Practical	CO-3 To aquire skills on food and wine compiliation.
	8 - Food And Beverage	CO-4 Aquiring skills in the art of Mocktail Mixing
33 19BHMP08		CO-5 Developing skill in the art of making cocktail.
		CO-1 To develop and understanding about the role of Human resourse department.
		CO-2 To aquire knowledge on manpower planning and recruitment
	Human Resource	CO-3 To develop knowledge on performance Appraisal, Promortion and Punishments
19BHME0 34 4	Management in	CO-4 Understand about administration of wages and salary
		CO-5 To understand the importance of Industry Relationship
		CO-1 To gain good knowledge on Hospitality licence requirements
		CO- 2 To gain knowledge on the Acts and Laws relevant to different kinfd of firms.

		CO-3 To understand the factors involving contracts and its types
19BHME0		CO-4 To aquire Knowledge on various laws relevant to employee dispute and emplyee welfare
35 5	Hotel Law	CO-5 To gain knowledge on government governing bodies for various licences
		CO-1 Develop basic knowledge on Fast food operations Histroy
		CO-2 Understand the different Concept of Fast food Joints
		CO-3 Aquire Knowledge about Equipments, Control measures and and types of food.
19BHME0	Food	CO-4 Develope Knowedge on establishing Standards and Exploring Case studies
36 6	Preservation	CO-5 Aquire Knowledge about health effetcs of fast foods
		CO-1 To aquire the knowledge about the grooming standards in the industry
		CO-2 To gain knowledge on safety and hygeine practices followed in the hotel
	Industrial	CO-3 To gain knowledege on operational procedures followed in the hotel
10DHMDD	Exposure Training Report	CO-4 To develop an individuals practical skills
		CO-5 To learn and follow various policies and practices in the hotel
		CO-1 Understanding the concepts &conventions of Accounting CO-2 To aquire the knowledge on preparation of Trial Balance ,Bank Reconciliation Statement and it Problems
		CO-3 Getting complete knowledge about Subsidiary Books

		Hotel Accounting	CO-4 To know the preparation of Final Accounts with adjustments
38	38 19BHMID3		CO-5 To aquire the knowledge about analysing income and expenditure account CO-1 To gain adequate knowledge in Hindi alphabets, numbers and names of vegetables required fc hospitality industry
			CO-2 To acquire knowledge about simple sentence construction in Hindi that are used in job sector
			CO-3 To gain knowledge on various terminologies used in the Hospitality industry.
	10DHMED	Communicative	CO4-To learn the techniques in basic conversation.
39	-	Hindi -I	CO5-To understand to recognize utensils and ,spices and relate them to terminology in cookery
			CO-1 To acquire advanced knowledge in use of alphabets and numbers.
			CO-2 To understand words and construct sentences used in Hotel Management.
			CO-3 To know the usage of terminology in cooking and basic recipes.
	10DUMED	Communicatve	CO-4To learn the basics of conversation in restaurant and outside.
40		Hindi -II	CO-5 To know recipe of common food items in Hindi
BCA	BCA		The area is set to promote and showcase the general communication and reactivity skills with the learnin potential of students.
			Students should be able to obtain LSRW skills and help to explore knowledge in various genres.
			Realize their responsibility towards the society centre through ethical, social and human values.

Students should be able to know the facts of environment and society which assist them to hold the value of the life.

Attain the core value in their respective area to meet out the global competitive edge.

To enhance their skills and new computing technologies through practical and theoretical knowledge Computer.

Apply and update their skills towards their employability, entrepreneurship and its sustainability.

Recognize the opportunities towards their up gradation and professional development in all spheres.

To Blend analytical, logical and managerial skills with the technical aspects to resolve real world issues. To expertise students as computing professionals to earn more and to contribute to the economi

PROGRAMME OUTCOME (PO): development of the region, state and nation.

An ability to apply knowledge of computing and mathematics appropriate to the discipline.

An ability to apply current techniques, skills, and tools necessary for computing practice and to integrate [7] based solutions into the user environment effectively.

An ability to apply design and development principles in the construction of software systems of varyin complexity.

An ability to use knowledge in various domains to identify real world problems and hence to provice solution to new ideas and innovations.

PROGRAMME SPECIFIC OUTCOME (PSO):

Course

S.No Code Course Name

An ability to design, document and develop robust applications by considering human, financial an environmental factors using cutting edge technologies to address individual and organizational needs.

Course Outcome

CO1:Acquire knowledge about basic knowledge about computer fundamentals.

CO2:Understand the concept of how to create and use word document.

INTRODUCTI CO3:Perform calculations using MS-Excel

1 21BCA101	ON TO OFFICE AUTOMATIO N	CO4:Present the content using MS-PowerPoint  CO5:Store and Retrieve the information using MS-Access and also gains some basic concepts of Internet.  CO1:Learn and Implement Word Processing Skills such as Create and edit one page Word documents an Format and enhance Word documents.
2 21BCAP01	OFFICE AUTOMATIO N AND INTERNET PROGRAMMI NG	CO2:Create and edit basic PowerPoint presentations Use template,animations etc.  CO3:Create and perform calculations using MS-Excel.  CO4:Performs operations on Database.  CO5:Identify and use Internet browser features, Use Search tools and Understand Internet Ethics.
3 21BCA201	PROGRAMMI NG IN C	CO1:Get basic knowledge about the operators, expressions and I/O statements.  CO2:Understand basic concepts on the looping statements, control statements.  CO3:Gain knowledge about functions and its types.  CO4:To impart knowledge on structures, union and file handling operations  CO5:To impart knowledge on file operation and Memory allocation.  CO1:To understand the basic data types, branching and looping statements
		CO2:To learn how to design structure and union.  CO3:To understand the concept of pointers and functions.  CO4:Enabling effective usage of arrays, structures and pointers.

4 21BCAP02	PROGRAMMI NG IN C-LAB	CO5:To gain knowledge to use files and command line arguments.
		CO1:Upgrade the skills and get awareness about the security mechanisms
		CO2:To understand the terminology and background of crypto graphics
		CO3: Improve the learning skills to find faults and fix faults in malicious program
	INFORMATIO	CO4: To understand methods of protection in operating systems
5 19BCA601		CO5: Gain knowledge about security requirements of databases.
		CO1: Develop and Create PHP scripts that use object-oriented PHP.
		CO2: To Implement business logic within the database
		CO3: Upgrade the knowledge to Use stored procedures and triggers
	PHP PROGRAMMI NG	CO4: Improve the skills to Create and deploy a portable web-based system
6 19BCA602		CO5: To inculcate the knowledge to Test and debug object-oriented PHP scripts
		CO1: Develop and learnt knowledge of programming using PHP scripts and its datatypes
		CO2: Implement the skills and Learnt to develop programming using arrays.
		CO3: Upgrade and learnt to develop programs using forms and cookies
	PHP PROGRAMMI	CO4: Gain knowledege about image functions and graphics
7 19BCAP08		CO5: To Inculcate the development skills about MySql

		CO1: To Identify the constraints, uncertainties and risk of the system
		CO2: Increase the skills and apply relevant problem solving methodologies
		CO3: Apply Design components, systems and/ or processes to meet required specification
	MOBILE	CO4: To Inculcate knowledge on mobile computing and Demonstrate research skills
8 19BCAE04	COMPUTING	CO5: To Communicate effectively in ways appropriate to the discipline, audience and purpose.
		CO1: To developed understanding of technical aspect of android Technology
		CO2: Understand various file formats for audio, video and text in android.
ON TO	INTRODUCTI ON TO	CO3: Able to describe various memory management techniques.
	ANDROID	CO4: Create a Design for interactive multimedia software.
		CO5: Able to apply the concepts of operating system to study android technology.
		CO1: Understand the working of cloud computing and their procedure and conditions
		CO2: To Identifies centrallising email communications and mappind schedule in projects
		CO3: Explore collaboration of scheduling, planning and event management and contact management
	CLOUD COMPUTING	CO4: Evaluate the web conference tools and how to create social networks
		CO5: To Describe about groupware
		CO1: To know about the types of projects

		CO2: Understand to do activity planning
	SOFTWARE PROJECT MANAGEME	CO3: Learn about the risk management
		CO4: Understand about the configuration management
11 19BCAE07		CO5: Adequate knowledge to do case study
		CO1: Ability to developweb pages using HTML and Cascading Style Sheets.
		CO2: Gain Knowledge of client-side(JavaScript) server-side scripting(PHP, ASP.NET) languages
	WEB TECHNOLOG Y	CO3: To Understand about static and dynomic web pages CO4: Develop Familiarization withWeb Application Terminologies, Internet Tools, E –Commerce ,we service
12 19BCAE08		CO5: To understand the applications on web technology in real world environment
		CO1: Understand the Fundamentals of Internet of Things.
		CO2: Design a portable IoT using Arduino/ equivalent boards and relevant Protocols
	INTERNET OF THINGS	CO3: Analyze applications of IoT in real time scenario
13 19BCAE09		CO4: Develop web services to access/control IoT devices
		CO5: Deploy an IoT application and connect to the cloud
		CO1: Understand the basic concepts of .NET Framework
		CO2: Describe some of the major enhancements to the new version of Visual Basic

CO3:To Develop an	applications using Microsoft Windows® Forms

	.NET PROGRAMMI	CO4: To Improve the Knowledge on Creating applications that use ADO. NET
14 19BCA501		CO5: Develop Crystal Reports that may help in creating reports related to the project
		CO1: To understand the Basic need to create a Network
		CO2: Learn about different layers and protocols present in those layers
		CO3: Configure the network devices
	COMPUTER	CO4: To Update the skills and Learn about IP -Addressing.
15 19BCA502		CO5: Provide skills about Network Security
		CO1: Develop solutions to simple computational problems.
		CO2: Write and execute simple Python programs.
		CO3: Decompose a Python program into functions.
	PYTHON PROGRAMMI NG	CO4: Represent compound data using Python lists, tuples and dictionaries.
16 19BCA503		CO5: Apply OOPs concepts in real-time Python applications.
		CO1: develop skills on Application programs for .net framework
		CO2: Upgrade skills to develop simple application using the concepts of inheritance
		CO3: Develop simple application to generate auto passwords and GK test

	.NET PROGRAMMI	CO4: Improve knowledge any kind of queries and various table manipulation can be done
17 19BCAP06		CO5: To Develop programs with database connections over network
		CO1: Write diversified solution using Python language.
		CO2: Solve problems using control statements.
		CO3: Knows about overloading concepts.
	PYTHON	CO4: Develop programs using Tuples, Lists and Dictionaries.
18 19BCAP07	PROGRAMMI NG	CO5: Implement program using file handling operations.
		CO1: Develop and implement the skills about E-commerce, E-business benefits and limitations
		CO2: Learnt and understand about mobile commerce and wireless applications
		CO3: To understand about E-security in cyberspace
	E-	CO4: Upgrade the skills about E-payments and M-commerce
19 19BCAE01		CO5: To inculcate the skills about business tools and EDI
		CO1: To Learnt about evolution of client sever computing
		CO2: Gain knowledge about various system standards(Client server OS)
		CO3: Learnt about client hardware and software other components
	CLIENT	CO4: To know about the server- hardware, network management

20 19BCAE02	SERVER COMPUTING	CO5: Learnt and understand about the networking concepts
		CO1: Learnt and understand the objectives of testing the software
		CO2: Upgrade the skills on test case tools implementations
	SOFTWARE ENGINEERIN	CO3: To understand the life cycle models and its phases of software project
	G AND SOFTWARE	CO4: Gain knowledge about various testing.
21 19BCAE03		CO5: Develop and understand about system, acceptance and implematation phase.
		CO1: Understand the features of C++ supporting object oriented programming.
		CO2: Learn about functions, Control Structures and Polymorphism concepts in C++.
	OBJECT ORIENTED	CO3: Apply the concepts of object-oriented programming.
PR	PROGRAMMI NG WITH	CO4: Understand about arrays, Objects and Virtual functions in C++.
		CO5: Illustrate the process of data file manipulations, Templates using C++.
		CO1: Gain Knowledge on fundamentals of Operating Systems.
		CO2: Learn the mechanisms of OS to handle processes and threads and their communication.
		C03: Acquires knowledge on Process and its Scheduling Mechanism.
	OPERATING	CO4: To learn the mechanisms involved in memory management in contemporary.
23 19BCA302		CO5: Knows about File system and its implementations

		CO1: Ability to analyze algorithms and algorithm correctness.
		CO2: Gain Knowledge on Stack and Queue Operations.
		CO3: Knows about Linked List and its implementation.
	DATA STRUCTURE	CO4: To have knowledge of trees and graphs concepts.
24 19BCA303		CO5: Ability to summarize searching and sorting techniques.
		CO1: Ability to analyze constructor and destructors.
		CO2: Gain Knowledge about function overloading and operator overloading.
		CO3: Knows about Inheritance and Abstract classes.
	DATA STRUCTURE S & C++ LAB	CO4: To have knowledge of trees, stack and queue concepts.
25 19BCAP03		CO5: Ability to summarize searching and sorting techniques
		CO1: Ability to design and create websites.
		CO2: Gain Knowledge on CSS Script and using it to design a website.
		CO3: Knows about HTML tags and its implementation.
	WEB DESIGNING USING HTML	CO4: To have knowledge of Lists and Tables in HTML.
26 19BCASB1		CO5: Ability to Formatting style of a website and improve critical thinking skills.
		CO1: Ability to analyze work with image editing and graphic design features.

CO3: Knows about Layers and its implementation. CO4: To have knowledge of color correction and graphic options. 27 19BCASB2 PHOTOSHOP CO5: Ability to summarize various editing tools. CO1: Acquire knowledge of the structure and model of the Java programming language CO2: Create Java programs that solve simple business problems. CO3: Explore various programming paradigms as well as principles of building object-oriented **JAVA** CO4: Develop Java applications with graphical user interface (GUI). **PROGRAMMI** 28 19BCA401 NG CO5: Implement the Concept of streams and file handling. CO1: Describe the fundamental elements of relational database management systems. CO2: Explain the basic concepts of relational data model, entity-relationship model, relational CO3: Design ER-models to represent simple database application scenarios RELATIONAL **DATABASE** CO4: To gain knowledge about PL/SQL fundamentals and its structure. **MANAGEME** CO5: Have knowledge about PL/SQL cursors and exceptions. 29 19BCA402 NT SYSTEM CO1: Use an IDE to write, compile, run and test simple object oriented java program. CO2: Design and implement Applet and event handling mechanism in application programs.

CO2: Gain Knowledge on basic Photoshop skills and concepts to develop graphics

		CO3: Apply the concept of package and gain knowledge about Exception handling.
	PROGRAMMI NG IN JAVA	CO4: Use JFrames in graphical interactive application development.
30 19BCAP04		CO5: Evaluate user requirement for software functionality.
		CO1: Develop a database application and use queries to retrieve data.
		CO2: Represent the database using ER diagrams.
		CO3: Apply normalization to database.
		CO4: To gain knowledge about project design and implementation.
31 19BCAP05	RDBMS LAB	CO5: Have knowledge about PL/SQL, trigger and exceptions.
		CO1: Define, identify and applied principles of employee and labor relations, employment law,
		CO2: Gain knowledge about HR's Role in organization.
	HUMAN RESOURCE MANAGEME 32 19BCAID4 NT	CO3: Analyze the principles of metrics and measurements of HR.
		CO4: To gain knowledge about the fundamentals of Trading and union.
32 19BCAID4		CO5: Apply the principles of Workforce planning and talent management
		CO1: Describe technical characteristics and performance of multimedia system.
		CO2: Design creative approach in application of multimedia devices, equipment and systems.
		CO3: Describe the development process and applications of the multimedia systems.

CO4: Carry out experiments and measurements on the multimedia systems.

**MULTIMEDI** 

33 19BCASB3 A

CO5: Gain knowledge about internet and multimedia on web.

CO1: Analyze basic functionalities and file options in CorelDraw.

CO2: To gain knowledge about objects and formatting text.

CO3: Describe the color models and special effects.

GRAPHICAL

DESIGN USING

CO4: Get Knowledge about manipulating images and basic tools in CorelDraw.

34 19BCASB4 CORELDRAW CO5: Gain knowledge about 3D design and rendering functions.

**BA ENGLISH** 

potential of students

Students should be able to obtain LSRW Skills and help to explore knowledge in various genres.

Realize their responsibility towards the society center through ethical, social and human values. Students should be able to know the facets of environment and society which assist them to hold the value of life.

Students should be familiar with representative literary and cultural texts within a significant number o historical, geographical, and cultural contexts.

Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.

Students should be able to identify, analyze, interpret and describe the critical ideas, values, and theme that appear in literary and cultural texts.

Students should be able to critically analyze various forms and genre of literature.

Students should be able to ethically gather, understand, evaluate and synthesize information from a variet of written and electronic sources.

Students should be able to understand the process of communication and interpretation through literar

PROGRAMME OUTCOME (PO): representation.

Develop intellectual, personal and professional abilities through effective communicative skills.

Ensure behavioral attitude through literary subjects and shaping the students to become socially responsible citizens and critically analyzing the literary works.

Educate students in both the artistry and utility of the English language through the study of literature and

Encourage students to face the challenges as it is essential and rewarding part of learning and growth Assist students in the development of intellectual flexibility, creativity and cultural literacy which provide

other contemporary forms of culture.

PROGRAMME SPECIFIC OUTCOME (PSO):

academic environment to fit in a job.

Course

S.No Code Course Name Course Outcome

CO1: Interpret Bacon's essays and Sir Richard Steele in prose form.

CO2: Identify Eighteenth Century Collaborative Journalism is learnt by the students.

CO3: Compare Prose Romanticism through Lamb and Hazlitt.

PART-III-CORE-1

CO4: Apply Theological, Paradoxical theories.

1 21BAE101 PROSE

CO5: Make use of Prose writers.

CO1: Summarize Eighteenth Century life of woman

CO2: Outline moralistic views of the Victorian Age

CO3: Relate social reform of the Nineteenth Century

	PART-III- CORE 2	CO4: Identify the elements of Detective Novel
2 21BAE102		CO5: Interpret the fictional writings of the various ages.
		CO1: Compare between the Renaissance and Reformation period and the development in learning.
		CO2: Relate the consequences of colonization and the significance of the Civil War.
	PART-III- Allied – 1	CO3: Identify the political reformation in England.
	SOCIAL HISTORY OF	CO4: Analyze the effects of Industrial and Agrarian Revolution that led to changes in learning.
3 21BAEA01		CO5: Relate French Revolution, World Wars and the consequences.
		CO1: Interpret various types of poetry.
		CO2: Relate the Metaphysical poets and their revolutionary ideas.
		CO3: Recognize poetry from a variety of cultures, languages and historic periods
	PART - III -	CO4: Explain the modern forms of poetry.
4 21BAE201	CORE 3 POETRY – I	CO5: Understand the common techniques underlying free verse and traditional forms of poetry
		CO1: Categorize Parts of Speech-Noun, Pronoun & Adjective
		CO2: Categorize Parts of Speech- Verb, Adverbs, Prepositions, Conjunctions & Interjections
	PART-III-	CO3: Understand the agreement between Subject and Verb
	CORE 4	CO4: Become familiar with transformations of sentences

5 21BAE202	GRAMMAR AND USAGE	CO5: Comprehend vocabulary
		CO1: Compare poetic types and stanza forms.
		CO2: Relate various school of poetry
	PART-III-	CO3: Outline the features of Drama and its life.
	Allied- 2 LITERARY	CO4: Interpret the origin of English Drama and Essay.
6 21BAEA02		CO5: Utilize various genres like the Novel, Short story, Biography and Autobiography.
		CO1: Appreciate the nuances of poetic language and poetic devices.
		CO2: Differentiate the different kinds of poetry – lyric, ode, ballad, elegy and dramatic monologue.
		CO3: Analyze the poems critically.
	PART-III CORE 5 POETRY-II	CO4: Understand and get acquainted with the creative imagination and techniques of poetry.
7 19BAE301		CO5: Understand and appreciate poetry as a literary art form.
		CO1: Understand the structure of a play and learn the dramatic devices used in writing a play.
		CO2: Gain knowledge in the development of English drama.
	PART-III CORE 6 -	CO3: Conceptualize various types of drama viz. Tragedy, Comedy, Farce, Melodrama, Historical Plays. CO4: Interpret literary texts in English by nurturing and utilizing their ability to understand drama in a skilled, knowledgeable, and ethical manner.
8 19BAE302		CO5: Develop reading, writing and analytical skills and communicate their ideas critically and Creatively.

		CO1: Perceive a chronological survey of the major writers and their writings that have contributed to th development of English literature.
		CO2: Chronologically fix authors, texts, movements' ideologies and literary practices.
	PART-III IDC- 3 HISTORY OF ENGLISH	CO3: Acquire knowledge about the three basic genres of literature namely poetry, prose and drama. CO4: Develop a view of how English literature has evolved through the centuries, establishing a perceptic of its Literary History.
9 19BAEID3		CO5: Understand texts in their cultural and historical contexts.
		CO1: Develop Communication Skills as well as Positive Personality Traits.
	PART – IV	CO2: Acquire the Language Suitable for Technical Communication.
	SBC – I PERSONALIT	CO3: Inculcate the Habit of Regular Reading and Writing.
	Y DEVELOPME	CO4: Acquaint students with the major practices in effective personality development.
10 19BAESB1		CO5: Experience the language to co-relate their classroom learning with their outside work.
		CO1: Comprehend the production and perception of speech sounds.
		CO2: Understand model of language structures.
	PART-III CORE-7	CO3: Identify and familiarize the concepts in Phonetics and linguistics.
	ELEMENTS OF	CO4: Analyse the system of language.
11 19BAE401		CO5: Apply the intonation of speech through practical usage. CO1: Appreciate the language and thought process of Indian writers.masteryand skill over the differer periods of time.

		CO2: Analyse and interpret the masterpieces of Indian Writing in English.
	PART-III CORE-8 INDIAN WRITING IN ENGLISH	CO3: Understand the rich cultural diversity and aesthetics in Indian Literature.
		CO4: Interpret the diverse texts and distinguish their salient features.
12 19BAE402		CO5: Highlights the glory of Indian writings in English.
		CO1: Outline the literary views of criticism.
		CO2: Identify the role of writers responsible for the Triumph of Classicism.
		CO3: Compare the critical aspects of writers belonging to the period of Romantic Revolt.
	PART-III-IDC 4- LITERARY CRITICISM	CO4: Demonstrate the period of Victorian compromise and writers belonging to this period.
13 19BAEID4		CO5: Illustrate the importance of the age of interrogation.
		CO1: Practice the unique qualities of professional rhetoric and writing style.
		CO2: Exploredifferent formats of technically using the language.
	PART-IV-SBC II - TECHNICAL ENGLISH	CO3: Make the students communicate effectively.
		CO4: Use variety of reading strategies to foster comprehension
14 19BAESB4		CO5: Demonstrate the ability to revise and to discover errors and correct them.
		CO1: Gain an insight into the age of Shakespeare.
		CO2: Understand the themes and techniques of Shakespearean plays.

	PART III-	CO3: Analyze Shakespeare's works critically.
	CORE 9- SHAKESPEA	CO4: Comprehend the ideas and themes of Shakespearean sonnets.
15 19BAE501		CO5: Increase their familiarity with Shakespearean language and expression
		CO1: Identify the key features of poetry.
		CO2: Understand characteristic forms or styles of expressions.
	PART III -	CO3: Comprehend to know the life, culture, language and society through literature.
	CORE 10- AMERICAN	CO4: Analyze the themes and techniques of the novel.
16 19BAE502		CO5: Develop the analysis in critical writing and critical thinking skills through interpretations.
		CO1: Identify the genres and characteristics of children's literature
		CO2: Interpret how cultural values and belief systems impact children's literature.
	PART III- CORE 11-	CO3: Understand the global socio-cultural concept of the child as exemplified in children's literature.
17 19BAE503		CO4: Analyze the themes and techniques of One Act Play. CO5: Apply the appropriate formal conventions and critical thinking skills while writing about children literature.
		CO1: Comprehend the theme, structure and style in poetry.
	PART III -	CO2: Identify the key features of prose. CO3: Understand new literatures the respective customs, habits, culture, language, socio-economic an political background of different countries.

**CORE 12-**NEW CO4: Analyze the themes and techniques of the novel. LITERATURE 18 19BAE504 S CO5: Apply the appropriate formal writing of post-colonialism and its related literary issues. CO1: Enhance the accurate usage of English Language Teaching. CO2: Understand the approaches and methods in language acquisition and development to support the English Language Teaching. PART III -CO3: Comprehend the proficiency in one or more creative literary forms. CORE 13-**ENGLISH** CO4: Focus on intended abilities, knowledge, values and attitudes. LANGUAGE 19 19BAE505 TEACHING CO5: Apply competence in the four modes of literacy: writing, speaking, reading and listening. CO1: Introduce students to the basics of journalism. CO2: Enable the students to understand news values and qualities of reporters. PART III -**CORE 14-**CO3: Enhance the technical terms and jargons of Journalism. **JOURNALISM** AND MASS CO4: Understand different types of media- their characteristics, merits and demerits. COMMUNICA CO5: Practice the students on various media programme formats. 20 19BAE601 TION CO1: Understand the ethical responsibilities CO2: Identify the various cultural and moral values associated with the texts which help them to become ethical communicators. PART III -CO3: Comprehend the social, historical and political backgrounds of the world of the

CO4: Discern the ethics of life, culture language and society through literature

CORE 15-ETHICS IN

21 19BAE602	ENGLISH LITERATURE	CO5: Enhance Reading skills and understand how to represent their experience and ideas critically creatively, and persuasively through the medium of language.
		CO1: Examine the issues discussed in the text in the socio-historic and cultural context.
	PART III - CORE 16-	CO2: Learn to read, analyze and appreciate poetry critically in the field of world literature
	WORLD LITERATURE	CO3: Validate the set of criteria used in the translation of Anton, Marquez& Turgenev
	IN ENGLISH TRANSLATIO	CO4: Distinguish the elements and patterns of translation in Kalidasa's Shakuntala CO5: Demonstrate a broad understanding of literatures in English and translation in creation and
22 19BAE603	N	interpretation of literary works
		CO1: Understand the difference between paragraph writing and creative writing.
		CO2: Apply literary techniques for developing themes and creative sentences.
	PART III- CORE 17-	CO3: Expose creative ideas in creating advertisements, slogans, caption, word games & puzzles.
	PROJECT – CREATIVE	CO4: Familiarize the critical thinking in writing diverse genres
23 19BAE604	WRITING	CO5: Enhance the originality in writing poetry, story & one act play.
		CO1: Develop and improve the accuracy in the usage of grammar
	PART III -	CO2: Enhance knowledge, skills and opinion sharing around human communication.
	ELECTIVE II- ENGLISH	CO3: Learn the nuance of writing and its techniques.
	FOR COMPETITIV	CO4: Understand the purpose of LSRW skills.
24 19BAEE05		CO5: Hone the vocabulary skills.

PART III -

CO1: Provide knowledge about the Tagore's contribution to the literary world.

**ELECTIVE III-INTENSIVE** 

CO2: Identify the themes and universal characters depicted by Tagore.

STUDY OF

AN AUTHOR CO3: Compare the existing social scenario with the prose work of Tagore.

RABINDRAN CO4: Analyse diverse literary characteristics and themes of Muktadhara.

ATH

CO5: Appreciate Tagore's contribution of literary ideas with the reality of life. 25 19BAEE07 TAGORE

## M.Sc. (ELECTRONICS AND COMMUNICATION SYSTEMS)

Have the ability to pursue inter-departmental research.

Understand the importance of critical thinking, social interaction, effective citizenship, ethics, environme and sustainability.

Acquire a holistic professional carrier

To build the necessary competencies and creativity and prepare them to undertake entrepreneurship as desirable and feasible career option.

PROGRAMME OUTCOME (PO): Able to work effectively as a team member and leader in an ever changing professional environment. Apply the knowledge of technical fundamentals to solve problems in the domain of Electronics ar communication field.

Analyze and interpret the experimental results and consolidate the information to provide valid outcomes.

PROGRAMME SPECIFIC

OUTCOME (PSO): Design and develop innovative electronics products in such a way to meet out the societal needs.

Course

Course Name Course Outcome S.No Code

CO1:Understand the material properties for micro fabrication.

		CO2:Understand and analyze the fabrication techniques.
		CO3:Able to design and analyze the micro system products.
	Core 1 : MEMS and	CO4:Design, apply and analyze the DC Drives.
1 22MES101	Power Drives	CO5:Design, apply and analyze the AC Drives.
		CO1:Understand and recognize the embedded systems and its classifications.
		CO2:Able to aware of the communication devices and network devices related to the embedded systems.
	Core 2 : Embedded and	CO3:Understand and apply the concept of inter process communications and synchronization techniques.
	Real Time Operating	CO4:Able to design a real time embedded systems using the concepts of RTOS.
2 22MES102		CO5:Analyze the types of RTOS and its functions.
		CO1:Understand the open loop and closed loop Control system components.
		CO2:Analyze characteristics of physical systems with Mathematical model.
	Core 3: Control Systems	CO3:Understand the behavior of closed loop systems both in time domain and frequency domain.
		CO4:Analyze the performance of systems with tools such as Root Locus, Routh Hurwitz.
3 22MES103		CO5:Apply the logic of Control System based on Root Locus method.
		CO1:Able to understand the performance of Microwave tubes.
		CO2:Design and analyze the pulse communication systems.

		Core 4: Electronic and Fiber Optic Communication s	CO3:Understand the concepts of optical fibers and connections.
			CO4:Apply the concept of optical sources in fiber optics communication
	4 22MES104		CO5:Design and analyze the optical networks.
			CO1:Design op-amp circuits to perform arithmetic operations
			CO2:Analyze and design linear and non-linear applications using op-amps.
			CO3:Analyze and design oscillators
		Core Practical 1: Power	CO4:Choose appropriate A/D and D/A converters for signal processing applications.
	5 22MESP01		CO5:Analyze and design filters using functional ICs.
			CO1:Compare the performance of AM, FM and PM schemes with reference to SNR
			CO2:Understand noise as a random process and its effect on communication receivers
			CO3:Evaluate the performance of PCM in a digital communication system
			CO4:Evaluate the performance of DPCM and DM in a digital communication system
	6 22MESP02	2 : Electronic Communication	CO5:Identify source coding and channel coding schemes for a given communication link
			CO1:Understand the PIC microcontroller architecture.
			CO2:Understand and apply the instructions in PIC microcontroller, Timer and CCP modules.
			CO3:Understand the concept of serial communication techniques with PIC microcontroller.

CO4: Analyze the interrupts and functions in PIC microcontroller.

Core 5: PIC

7 22MES201 Microcontroller CO5:Able to design and apply the PIC microcontroller applications.

CO1: Understand the basic CMOS circuits and technology.

CO2: Understand and apply the combinational and sequential logic design.

CO3: Understand and apply the basic concepts of VHDL

Core 6: VLSI and VHDL

CO4: Analyze the Behavioral Modeling.

8 22MES202 Programming

CO5: Apply and analyze Data Flow & Structural Modeling

CO1: Provide practical hands-on experience with microprocessor applications and interfacing techniques.

CO2: Understand PIC microprocessor kit, knowledge of PIC instruction set and ability to utilize it in

assembly language programming.

CO3: Understand real mode Memory addressing and ability to interface various devices to th

microprocessor.

Core Practical CO4: To familiarize with the assembly level programming

3: PIC

9 22MESP03 Microcontroller CO5: Design circuits for various applications using microcontrollers

CO1:Understand the basic FPGA concepts.

CO2: Understand and apply the digital techniques.

CO3: Understand and apply the sequential logic design.

Core Practical CO4: Analyze the Combinational logic design

10 22MESP04	4: VHDL Programming	CO5: Apply and analyze the digital system using Hardware Description Language.
		CO1:Analyze the properties of signals and systems.
		CO2:Apply Laplace transform, Fourier transform, Z transform and DTFT in signal analysis.
		CO3:Apply and analyze continuous time LTI systems using Fourier and Laplace Transforms.
	Elective I : Signals and	CO4:Apply and analyze discrete time LTI systems using Z transform and DTFT.
11 22MESE01	C	CO5:Analyze the LTI systems in the Time domain and various Transform domains.
		CO1:Understand the basics of Ad hoc networks and Wireless Sensor Networks.
		CO2:Apply and identify the suitable routing algorithm based on the network and user requirements.
	Elective I : Adhoc and	CO3:Apply the knowledge to identify appropriate physical and MAC layer protocols.
	Wireless Sensor	CO4:Understand the transport layer and security issues possible in Ad hoc and sensor networks.
12 22MESE02		CO5:Understand and apply the OS used in Wireless Sensor Networks and build basic modules.
		CO1:Understand the characteristics of transmission lines and its losses. CO2:Understand and Apply the standing wave ratio and input impedance in high frequency transmissio lines.
	Elective I:	CO3:Analyze impedance matching by stubs using smith charts.
	Transmission Lines and RF	CO4:Analyze the characteristics of TE and TM waves.
13 22MESE03		CO5:Able to design and evaluate a RF transceiver system for wireless communication.

		CO1: Domenstrate the abilty to identify, formulate and solve digital system design problems.
		CO2: To design and conduct experiments, analyze and interpret digital data
Cono Puo	Core Practical	CO3: Demonstrate the skills to use modern engineering tools
	5: Digital	CO4: To analyze the problems using Proteus
14 22MESP05	System Design using Proteus	CO5: Able to design and evaluate a digital system design
		CO1: Understand the discrete time signals and systems.
		CO2: Analyze and designing the IIR filters.
	Core 7: Discrete Time	CO3: Analyze and designing the FIR filters.
	Systems and Signal	CO4:Analysing and applying the finite word length effects on digital filters.
15 21MES301	C	CO5:Analysing the DSP processor architecture CO1: Remember the architecture of processors and understand the architecture and features of ARMS processor.
		CO2: Understand instructions set of ARM processor and also understand the functionalities of NAND flasl controllers.
	Core 8: ARM Processor and	CO3:Analysing the operations of timers and peripherals such as LCD ADC and touch screen. CO4:Analysing and applying the concept of serial data transfer using various modules present in ARN processor.
16 21MES302		CO5:Analysing camera interface audio interface and applying their usage in real world.
		CO1: Understand the data network fundamentals.

		CO3:Analysing the HART protocol and its communication.
	Core 9: Industrial Data Communication	CO4:Analysing and applying the MOD bus and Profi bus protocol structures on communication.
17 21MES303		CO5:Analysing the industrial Ethernet and wireless communication on industries.
		CO1: Understand the addressing modes of DSP.
		CO2: Analysing the arithmetic operations of DSP.
	Core Practical 6: DSP	CO3:Analysing the DFT and FFT computations.
	Programming using	CO4: Analysing the convolution and Correlations of discrete signals.
18 21MESP06		CO5:Analysing and designing of IIR and FIR filters. CO1: Remembering the concepts of LED ,Relay and keyboard and writing programs using Arm processo to interface these devices.
		CO2:Understanding the concept of DAC and ADC used in ARM processor
	Core Practical	CO3: Analysing serial communication and stepper motor interface through ARM processor.
	7 : ARM Processor Programming	CO4: Analysing CCP modules and configuring the module to generate PWM output .
19 21MESP07		CO5:Understanding and analysing the concepts of multitasking and priority scheduling . CO1: Remember the concepts of MATLAB with Matrix commands, variables and functions fo computations.
		CO2: To understand the concepts of I/O Statements and MATLAB graphics.

CO2: Analysing the serial communication to the data network.

		CO3: Analyze the various control structures for MATLAB programming.
20 21MESE04	Elective II: MATLAB Programming	CO4: Analyze the Simulink software model for MATLAB computations.
		CO5: Apply the MATLAB concepts for Digital Signal Processing Applications.
		CO1: Understand the architecture of software defined radios.
		CO2: To understand the functions of software defined radio functions.
21 21MESE05	Elective II: Cognitive Radio	CO3: Analyze the various techniques on Cognitive radio.
		CO4: Analyze the architecture of Cognitive radio.
		CO5: Analyze the next generation wireless networks.
		CO1: To understand the image fundamentals and mathematical transforms necessary for image Processing.
		CO2: To understand the image segmentation and representation techniques.
22 21MESE06	Elective II: Advanced Digital Image Processing	CO3: Analyze the feature extraction techniques on images.
		CO4: Analyze the image fusion techniques.
		CO5: To analyze the constraints in image processing when dealing with 3D data.
		CO1: To understand the PLC and SCADA architecture.
		CO2: To understand the PLC Programming.
		CO3: Analyze the PLC Programming Languages.

Core 10: PLC CO4: Analyze the architecture of distributed control system. and Distributed 23 21MES401 Control System CO5: To analyze and apply the advancement techniques in automation. CO1: Remember the concepts of Light waves and Solid state physics for Optical devices. CO2: To understand the concepts display devices and LASER's and its applications. CO3: Analyze the Photo devices performance for Opto electronics. Core 11: CO4: Analyze the various Opto electronic modulators. Optoelectronic 24 21MES402 Devices CO5: Apply the Opto electronic integrated circuits for various applications. CO1: To understand the classification of nano structures. CO2: To analyze the nano materials and its characterization. CO3: Analyze the various microscopy techniques for nano technology. Elective III: Nano CO4: Analyze the nano electronics. Technology and 25 21MESE07 Applications CO5: Analyze the nano devices and applications. CO1: Understand the properties of MOS switches. CO2: To understand the concepts data conversion circuits.

CO3: Analyze the Precision techniques on analog IC Design.

CO4: Analyze the various ADC/DAC architectures.

Elective III:

<b>CMOS</b>	Anal	log
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26 21MESE08 IC Design CO5: Analyze the sampling converters on analog IC design.

CO1: To Remember the basic concepts of IoT.

CO2: To Understand the IoT Domain Specifics.

CO3: Understand the concepts of IoT Devices Management.

Elective III:

Internet of Things (IoT)

CO4: Analyze the embedded and cloud usages in IoT.

27 21MESE09 CO5: Apply the IoT tools in various applications.

Col:Apply relevant knowledge and skills, within the main area, to a given problem.

Co2:Get to know the hardware and software co design issues and testing methodology of related Project.

Co3:Work in multidisciplinary environments

Co4:Reflect on, evaluate critically analyze and assess own result with and others scientific results.

Project: Project Co5:To report and present the findings of the study conducted in the preferred domain and to able write
28 21MESPR1 and Viva-Voce Technical report/thesis.

## **MBA**

The ability to apply and understand the business acumen gained in practice solves managerial issues. The ability to communicate and negotiate effectively and upgrade their professional and managerial skills their workplace.

The ability to take up challenging assignments even in a dynamically unstable environment.

To understand one's own ability to set achievable targets and complete them.

To acquire in-depth knowledge of business management and entrepreneurship embedded with ethics at fulfilling business career pursue lifelong learning.

Demonstrate the knowledge of management science to solve complex corpora problems using limited resources

Identify business opportunities, design and implement innovations in work space. Function effectively as an individual, and as a member or leader in diverse tean and in multidisciplinary settings.

Adapt and develop research acumen

PROGRAMME OUTCOME (PO): To have a fulfilling business career and pursue lifelong learning.

To guide and channelize the transformation process of every management graduate by providing in-dept knowledge of business management and entrepreneurship embedded with ethics and a sense of social To ignite a passion for multidisciplinary approach for problem solving, critical analysis and decision makin by giving due importance for lateral thinking sothat management graduates see things from a perspective To have an understanding of the global arena and competitive environmen

which are bringing paramount changes in business practices.

To give in-depth knowledge in the areas of generic electives (ie) marketing, finance, human resource, supp chain and logistics management, operation andbusiness analytics.

PROGRAMME SPECIFIC OUTCOME (PSO):

Course

S.No Code Course Name To demonstrate leadership and team membership skills which are ardently required for effective

implementation and coordination of organizationalactivities and gain communication skills to communicate

Course Outcome

Best knowledge about the environment that impact the business decision

Awareness about important concept and terminology used in business

Understand the value and Do's and Don'ts of Ethics in business environment

Better understand the concepts that used in international perspective

1 21MBA301	Business Environment	Understand the role and fuctions of regulatory agencies
		Understand the Basics of Law of Contract.
		Understand the Functionality of the Business through Partnership Act and Sales of good.
2 21MBA302	Legal Aspects of Business	Know about the Agency, Principal Parties Involved to the Other
		Better Awareness about the Law that Pertained to Company Act.
		Understand Various Terminology and Techniques that are used in Business.
		Know the Brands and challenges and opportunities around it
		Understand the Brand positioning methods
		An insight about Brand Image.
21MBAEA 3 1	Brand Management	Awareness about Brand architecture and Brand portfolio management
		Understand the Brand challenges in global aspects.
		An overview about Retail Industry
		Understand the evolution in retail industry
		An insights about setting of retail stores
21MBAEA	Retail	understand the concepts of pricing in retail industry
4 2	Management	Understand the mean of communication and supply of goods in retailing

		Insight into the Role of Integrated Marketing Communication and its Challenges
		Awareness on Advertising Campaigns, Gain an overall Understanding about Advertising Agencies
	Integrated A Marketing Communication  B Recruitment and Selection	Knowledge about Advertising Budget Preparations and its Research
21MD 4 E 4		In Depth Knowledge on Indian Mode of Advertising with International Advertising and Promotion
5 3		Understanding on Emerging Concepts and Issues in Marketing Communications.
		Understand the Foundation of Recruitment, Concepts of Job Analysis and Job Design
		Aware of the Various Sources of Recruitment
		Understand the Concepts of Selection, Types of Tests in Selection, Interviewing Hurdles
21MD A ED		Understand the Concepts of Induction, Socialization Tactics, Trends in Recruitment
6 1		Prepare the CV, Interview Etiquettes
		Understand about industries and composition of industry
		Awareness about the problems of employee in industrial settings
	Labour Welfare and Industrial Relations	Undertand the basics of law that pertained to wages
21MD A ED		Understand the various retirement benefits for employee
7 2		Understand the rule that pertained to special servIce industry establishment
		An outline of Performance Management System and its Challenges

		Understand about the Performance Managing System and the Performance Planning Process in a Organization
	B Performance Management	Explore and Apply Innovative ways of Rewarding Employee by Appraising and Monitoring the Employees
21MBAEB 8 3		Identify the Issues in the Employees and Perform Counseling and Implementation of the Changes. Analyze Critical Ethical Issues Relating to Performance Management and the Future Role of HI Professionals in Performance Management
		To Understand Investment Alternatives Choice and Evaluation and its Risk and Return Concepts.
		To Get Depth Knowledge about Securities Markets and Methods of Floating New Issues through IPO
	Security	To Know the Factors Influencing Fundamental Analysis and Applied Valuation Techniques.
21MBAEC 9 1	Analysis and	This Unit will Help to Know the Factors Influencing Technical Analysis through Charting Methods. On Completion of the Course, the Students are Expected to be Familiar with Different Concepts of Portfoli Management. They would Understand How to Develop an Efficient Portfolio based Upon Risk and Return The students will have enhanced awareness of Indian Financial System &Non Banking Financia Companies (NBFCs), Financial Inclusion, Micro finance and its implication on the economy. This course
		Compare Hire-Purchasing and Leasing concepts.
		This unit will help to know about the Process of Mutual Funds and RBI Guidelines.
211470 A E.C.	Advanced	This coursewill help the students meaningfully participate in the Stages of Venture Capital and its risk.
21MBAEC 10 2	Services	This unit will help to know the Reasons, Difference between Mergers & Acquisition Understanding of the tax, its nature and characteristics, and the basic concepts in tax, analyzing tax evasion tax avoidance and tax planning.  Understanding the various sources of income for an individual and applying the concept to calculate the total income and tax liability of an individual

		Understanding the sources of income for HUF. Firms, AOP etc., and the tax structure for various persons.
21MBAEC 11 3	Taxation	Understanding the computation of corporate tax and its implications, MAT Understanding the concept of GST, its implications on revenue on central and state governments, an collection of CGST and SGST
		Understand the concepts of Supply chain management
		Students Aware about the strategic issues in supply chain management
		Understand the basics of supply chain network performance
21MBAED	Supply Chain Management	The students understand the Introduction to transportation in supply chain management
12 1		Understand the ERP implementation an its design. Ability to analyze and make decisions that impact the performance of the firm as well as the entire Logistic system.
21MBAED 13 2	Logistics Management	Analyze the strengths and weaknesses of various transportation modes and warehousing materials handling To develop the strategies that can be taken to find the best paths to route vehicles to deliver and collect goods at multiple stops  To develop the strategies that can be taken to manage inventories, including deciding the timing and quantifor replenishments without hurting the level of product availability along with costs of warehousing and To use computing software to solve various logistics decision-making problems, including inventory policitand vehicle routing.
		The students understand the Analytics in supply chain management
		Students Aware about the Strategic fit in supply chain
		Understand the basics of bullwhip effect and time series analysis

21MBAED	Supply Chain	The students understand the Multi echelon inventory management
14 3	Analytics	Understand the Network design in supply chain
		To inculcate Research interest among students.
		Demonstrate a systematic understanding of project contents.
		Enable students to implement Project Planning in their Industrial In-plant Training Project work.
21MD A DD	Summer Internship	Apply the theoretical concepts to solve industrial problems with multidisciplinary approach.
15 1		Understand methodologies and professional way of documentation and communication.
		To gain hands on experience related to the field. Be acquainted with the contemporary issues, latest trends and thereby innovate new ideas and solutions t existing problems. Ability to comprehend and write effective project reports in multidisciplinary environment in the context changing technologies.
21MD A DD	Major Project	Demonstrate an ability to present and defend their research work to a panel of experts.
16 2	& Viva voce)	Understand methodologies and professional way of documentation and communication.
		Understand the basic concepts of Entreprenuership
		Understand the scope of entreprenuership
		understand the project selection procedure
	Entrepreneurshi	Awareness about the financial institution in rendering financialservices

p and Project 17 21MBA401 Management	Awareness about schemes that available for retriving sick industry
	The students are able to learn the fundamentals of strategic management using the case method. To understand the fundamental principles of and relationships among business functions such as: finance human resources, marketing, and operations.
	understand the relationships of business to individuals, other organizations, government and society
Strategic 18 21MBA402 Management	Analyze the integrative nature of strategic management & Create strategy -implementation plans. opportunity to develop skills for strategic thinking and analysis, leadership and design strategic controsystem.
	Demonstrate an extended understanding of the unique characteristics and challenges of services marketing.
	Demonstrate knowledge of the extended marketing mix for services  Demonstrate integrative knowledge of marketing issues associated with service productivity, perceive quality, customer satisfaction and loyalty.
21MBAEA Services	Prepare, communicate and justify marketing mixes and information systems for service-based organizations.
19 4 Marketing	Critically appraise the way in which this theory can be practically applied in the service sector.  Understand what social media is, the various channels through which it operates and its role in marketin strategy  Use principles of consumer and social psychology to develop social media content and campaigns the engage consumers  Draw on knowledge about word-of-mouth marketing to develop effective approaches for propagating idea messages, products, and behaviors across social networks
Digital and 21MBAEA Social Media	Measure the impact of a social media campaign in terms of a specific marketing objective
20 5 Marketing	Implement the camping strategy

		The students understand the Agricultural marketing concepts.
		Students Aware about the marketing agencies & institutions.
		Understand the basics of rural marketing concepts and environment.
21MBAEA	Agricultural	The students understand the various product strategies.
21 WIDALA 21 6	Marketing	Understand the distribution strategy and distribution channels.
	Personal Growth and Interpersonal Effectiveness	Understand about the self-concepts& Strategies.
		Know about the concepts of human personality, assertive training and emotional intelligence of people.
		Understand the concept of personal change, Creativity and innovation.
21MBAFR		Understanding the concepts & Application of Transactional Analysis tools and techniques.
21MBAEB 22 4		Get to know about counseling and its methods and counseling in organizations
		Best knowledge about the coaching and mentoring as performance management& its phases.
		Awareness about key roles and responsibilities of mentor/coach
		Understand the value successful coach and foundation for successful performance
21MBAFR	Coaching and Mentoring	Better understand the models of coaching and mentoring.
21MBAEB 23 5		Understand the role of Performance development program in team performance.
		Adequate Knowledge in Modern Theory concept

Capable to do 1	planning for	productivity
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			Crour renowledge in investment ripproden
21MB 24 6	21MRAFR	Human Resource Accounting	In depth knowledge in HR Accounting concepts and Managements
			Trained to use HRA Software to do accounting and auditing
			Help to understand Indian Banking system and structure in India.
			This unit focused Banker and customer relationship, Obligation.
			Help to know the Banking Technology as MICR, Cheque Transaction, ECS, EFT, NEFT & RTGS.
	21MRAFC	Principles and Practices of Banking	How Asset Liability Management (ALM) in banks are working.
21 VIDAE 25 4			To know the International banking Techniques in Facilities for Exporters and Importer.
			Risk identification and Risk management techniques in Life & Health.
			This unit focused Property and liability risk Management.
			Help to know the Risk Management of Auto owners and Home owners' policy coverage.
	21MBAEC	Risk Management &	This unit focused Health Insurance, Annuities and Employees benefit.
	26 5	Insurance	Recent scenario in Life and General insurance industry in India, IRDA.

Understand the empirical and theoretical implications of the financial investments. Apply portfolio theory and evaluate the risk and returns associated with individual and collectivistocks.

		Evaluate stock price using fundamental analysis and technical analysis tools.
21MBAEC 27 6	Wealth Management	To learn valuation of equity, debt and mutual funds. Analyze the fundamental drivers of diversification as an investment strategy for investors and creat optimal portfolio.
		The students understand the Preliminary for starting export business.
		Students Aware about the Different categories of exports.
		Understand the basics of Export documentation.
21MBAED	Export Trade and	The students understand the Introduction to export finance.
28 4	Documentation	Understand the Pre shipment finance and post shipment finance To understand how Logistics, Supply Chain, Operations, Channels of Distribution fit in to various types o Business viz., Manufacturing, Service and Project. Analyze Warehouse Management and, other functions in Logistics fits into Logistics & Supply Chai Management. To understand how Managers, take decisions for inventory control and how they are taken in warehous management functional area.
21MBAED	Warehouse	Examine systematically the planning mechanisms in materials handling.
29 5	Management	Best knowledge about modern warehousing methods and its advantages.
		Make basic use of Enterprise software, and its role in integrating business functions Examine systematically the planning mechanisms in an enterprise, and identify all components in an ER system and the relationships among the components

Design the ERP implementation strategies.

21MBAED	Enterprise Resource	Analyze the strategic options for ERP identification and adoption.
30 6	Planning	Create reengineered business processes for successful ERP implementation
		Understand the role of women in society.
		Foster entrepreneurship and innovation among women. Offer idea to business journey with the help of financial aids in a structured way through the variou government schemes.
21MD A V/A	Women and	Impart actionable awareness regarding the systematic process of developing leadership in women.
31 2	Leadership	Stimulate the managerial, financial and interpersonal skills through the role models and success stories.
		Understanding the concept of business, forms of business
		Knowing the concept of management, Evolution of management, functions of a manager.
	Business Organisation	Understanding the concept of planning, process of planning, forms of organisational structure. Understanding staffing, recruitment and selection process, Knowing the leadership qualitites, application case studies.
32 21MBA101	and	Know about controlling techniques, the concept of organisational change and development, application case studies.
		Understanding of dynamics of OB, Opportunities of OB
		Know the concept of intelligence, awareness of personality types, application of psychometric tests.
		Knowing the concept of perception, attitude formation and learning theories. Understanding individual behavior, dynamics of groups and effective team building, conflicting situation Ethical issues in organisational culture.

33 21MBA102	•	Awareness on Organisational change, organisational politics, coping with stress and the motivational theories.
		Understand the relative importance of Managerial Economics Introduce the microeconomic concepts - demand, pricing, cost determination, entry into and exit from markets, price - output decisions. Evaluate features of different kinds of markets & discuss on cost price behavior in each structures, Be equipped with the various tools for analyzing pricing strategies.
	Managerial	Understand the concept of profits and analysis of profits.
34 21MBA103	•	Know about Macro economic variables and its real time impact on economy and government policies.
		Apply the comprehensive treatment of accounting principles, techniques and practices
		Infer the circumstances providing for increased exposure to final accoutns and depreciation
	Accounting for managers	preventative internal control measures
		Develop Budget and analyse Cost variances.
35 21MBA104		Basic concepts of Management Accounting & Interpret the financial statements and report the findings. enable students will acquire the knowledge of Mathematics of finance and Mathematica concepts c Differentiation and integration Analyze real world scenarios and determine the appropriate type of analytical problem solving techniques t utilize
	Quantitative Methods for Management	Gain knowldege on statistical concepts of correlation and regression equations for business Make the students to understand the concepts of Time series, Trend analysis and Index numbers fo Business analysis  Develop the knowledge of statistical analysis for research in order to write the interpretation and solving the hypothesis

Understand the basics of communication process

Gain knowledge about the non-verbal communication techniques

Understand the various types of business letters

Develop job application letter, bio data, preparation for Interview

21MBASB Executive
37 1 communication

communication Basic concepts of meetings, agenda preparation and communications in an organisation

Improving their conceptual skills, understanding and application of tools and techniques of operation

management in business practices in real time.

Understanding and application of factors in the design of effective operating systems based on location an

layout.

Understand the concept of material management & its strategies

Apply Quality control Techniques to attain productivity optimization

Operations

38 21MBA201 Management

Analyze the finances of individual corporations both in terms of their performance and capital requirements

Gain a solid understanding of key marketing concepts and skills.

Develop the students' skills in applying the analytic perspectives, buyer behaviour decision tools, an

concepts of marketing to decisions involving segmentation, targeting and positioning.

Develop an understanding of the underlying concepts, strategies and the issues involved in product life cycl

new product development

Develop strong marketing promotion plans and persuasively communicate your recommendations ar

rationale

Marketing

39 21MBA202 Management

Understand the channel of distribution to reach the target audience. Recent Marketing terms.

Understand both the theoretical and practical role of financial management in the business firm

	Apply financial management concepts and tools to the Problems faced by a manager in Budgeting decisions Understand the outside influences of economic and political factors on various sources of funds with the costs
Financial	Justify the contemporary financial management strategies which are preferred to specific projects
40 21MBA203 Management	Analyze the finances of individual corporations both in terms of their performance and capital requirements
	Develop a meaningful understanding of HRM theory, functions and practices.  Apply Human Resource Planning, Recruitment and Selection and skills across various types o organizations.
	Know about the Interview process, Induction and Orientation, Training techniques.
Human Resource 41 21MBA204 Management	Develop understanding on performance appraisal and its methods Educate on the process of handling disputes, laws pertaining to Employees welfal and employment in the Organization.
	Understand the basic framework of research process
	To formulate the hypothesis for business problems ,know the scaling techniques.
	Understand the sampling techniques, preparation of questionnaire and coding techniques
Research Methods for	Apply various parametric tests to test hypothesis
42 21MBA205 Management	Develop necessary critical thinking skills in order to formaulate the report writing
	enable students will acquire the knowledge of Operations research and Resource Management
	Analyze real world problems and decision making for Transpotation Problems and Assignment Problems

		Gain knowldege on Game theory and Dominance Property for business management
	Quantitative Techniques	Make the students to understand the concepts of Inventory Models Probability Inventory Models concept.
43 21MBA206		Develop the knowledge of Simulation and Queuing Theory for decision making.
		Able to demonstrate the basic working knowledge in Microsoft excel
		Able to use in-built functions in Excel for simple decision making, perform investment analysis using Excel. Gain practical knowledge to work in Exce. This will give you a great set of tools which you will be able to apply in many different situations, limited only by your imagination
21MBASB 44 2	Advanced Excel for Managers	Understand data keeping, applying functions to the data stores, and data analysis. Knowing Conditional formatting, Data validation, Paste special, Pivot table and charts, Excel tables, Exce charts and graphs can be placed in the next level of the organisation.
		Understanding personal ethics with help to overcome real problems in life.
		Evaluate situations and apply ethical principles in professional life.
		Give importance to the core purpose of the institution.
21MBAVA	Professional	Apply workplace etiquettes in different environments,
45 1	Ethics	Create awareness among employees rights privacy and cyber crime
M.Sc Mathematics		
		Have the ability to pursue inter-departmental research. Understand the importance of critical thinking, social interaction, effective citizenship, ethics, environme and sustainability.

Acquire a holistic professional carrier

To build the necessary competencies and creativity and prepare them to undertake entrepreneurship as desirable and feasible career option.

Able to work effectively as a team member and leader in an ever changing professional environment. Equip the student with skills to analyze problems, formulate an hypothesis, evaluate and validate results, an draw reasonable conclusions there of.

Prepare students for pursuing research or careers in industry in Mathematical sciences and allied fields

Imbibe effective scientific and/or technical communication in both oral andwriting.

Apply the underlying unifying structures of mathematics (i.e. sets, relations and functions, logical structure and the relationships among them

PROGRAMME OUTCOME (PO): Students will be able to define fundamental concepts, Principles and theories of science

Identify and analyze the real life problems using the principles of Mathematics and apply the Mathematica concepts in all the fields of learning including higher research.

Able to crack competitive exam, lectureship and fellowship exams approved by UGC Like CSIR-NET an SET.

Develop the thinking capability that meets the specified needs with appropriate consideration tomeet the needs of the society, work and communicate effective teams.

Provides the knowledge of wide range of Mathematical techniques and application and app methods/tools in other scientific and engineeringdomains.

PROGRAMME SPECIFIC

OUTCOME (PSO): Assist students inpreparing(personalguidance,books) for competitive exams

Course

S.No Code Course Name Course Outcome

Remember the groups, ring, homomorphism and automorphism of fields.

Understand the concept of Euclidean ring, polynomial rings, factorization and ideal theory

		Apply Gauss lemma, Einstein criterion for irreducibility of polynomials over rational
21MMA10		Analyze different fields, finite fields, extension of fields, Galois theory
1 1	Algebra	Evaluate Trace, Transpose and understand Hermitian, unitary and normal Transformations
		Remember the techniques of the basic stepping stones to contemporary research.
		Understanding the sequences of functions which are point wise convergent and uniform convergent
21MMA10		Apply the basic results to classical theorems in advanced real analysis.  Analyze the concept of Lebesgue measure which is later used in developing the theory of Lebesgu integration
2 2	Real Analysis	Apply Lebesgue measure to get the theory of Riemann integration
		Remember the second order linear equations with ordinary points
		Understand the concept of Systems of first order equations
		Analyze linear systems with constant coefficients
21MMA10	Ordinary Differential	Apply Successive approximation.
3 3	Equations	Evaluate Elementary linear and non linear oscillations
		Remember Numerical differentiation and integration
		Apply some methods for solving system of linear and non-linear equations
		Understand the Solution of ordinary differential equations

21MMA10 4 4	Numerical Methods	Analyze Boundary value problems and characteristic value problems
		Evaluate partial differential equations
		Remember divisibility and about primes
		Apply the concept of congruence
		Understand the Solution of ordinary differential equations
21MMA10		Analyze Quadratic reciprocity
5 5		y Evaluate Arithmetic functions
		Remember Limits and continuity
		Understand Complex Integration
	Complex Analysis	Evaluate definite integrals using residuals
21MMA20		Apply the concept of partial fractions
6 1		Analyze Riemann Mapping on Polygons and rectangle
		Remember Second order equations in two independent variables
		Understand Cauchy problem, Homogeneous wave equation and Non-homogeneous wave equation
		Evaluate vibrating string problem
	Partial	Apply the concept of Maximum and minimum principles

21MMA 7 202	Differential Equations	Analyze the delta function and Green's function
		Remember energy and momentum
		Understand calculus of variation
		Evaluate the examples of Lagrange's equations of motion
21MMA20		Apply the concept of separability
8 3	Mechanics	Analyze the transformations
		Remember vector operation
		Understand arrays and matrices
		Apply the Conditions and loops
21MMA20	R- Programming	AnalyzeWriting and saving data objects to file in R
9 4	Theory	Evaluate Mean, Median, Mode, S.D, Correlation, regression and Time series analysis using R- Graphs
		Understand arrays and matrices
		Learn the commands to create a 3x3 matrix
		Apply R- program to draw R- Pie, Bar charts
21MMAP0	R- Programming-	AnalyzeTime series using data objects in R
10 1	Practical	Evaluate Mean, Median, Mode, S.D, Correlation, regression and Time series analysis using R- Graphs

		Remember shortest path using Dijkstra's algorithm
		Apply the concept of Fractional cut Method.
		Analyze simulation modeling and Generation of random numbers
21MM	Advanced 0 Operations	Understand Dynamic Programming
11 1	Research	Evaluate quadratic Programming
		Remember Electromagnetism – Fundamental Laws
		Understand the Stress tensor – Navier-stokes equations
		Evaluate Alfven waves in incompressible MHD.
21MMAF	0 Magneto hydro	Analyze incompressible viscous flows in the presence of magnetic field
12 2	Dynamics Dynamics	Apply the concept of Stability and gravitational instability.
		Remember Mathematical Neuron Model
		Analyze Perceptron Architectures
		UnderstandHebb Rule, Pseudo inverse Rule and Variations of Hebbian Learning
21MMAE	0 Neural	Apply the concept of Taylor series
13 3	Networks	Evaluate Directional Derivatives
		Apply the concept of continuous functions

		Understand about the Topological spaces.
		Remember closed sets and limit points.
19MMA30	Topology	Analyze Connectedness and Compactness.
14 1		Know the concept of countability and separation Axioms.
		Apply the concept of boundary conditions
		Understand about the Two dimensional functions
		Remember energy equation, rate of change of circulation.
19MMA30		Analyze Couette flow, Plane Poiseuille flow
15 2	Fluid Dynamics	s Know the Boundary layer concept
		Apply the concept of Subgraphs and Trees
		Understand about the Connectivity and Hamilton cycles
		Remember Matchings and Edge colourings
19MMA30	Graph Theory	Analyze Independent sets, Cliques and Vertex Colourings
16 3		Know the types of Planar Graphs and Directed Graphs
		Apply the concept of Moments.
		Understand about the Characteristic Functions.

Remember distribution functions.

			Remember distribution functions.
	10MM A 30	Mathematical Statistics	Analyze Limit Theorems.
1	19MMA30 17 4		Evaluate the different types of tests.
			Apply the concept of Arc Length, Tangent, Osculation plane
			Understand about the Evolutes and Involutes
			Remember Elementary theory of surface
	100404450	Differential	Analyze Second fundamental form
1	8 4	Geometry	Evaluate the Geodesic curvature and Geodesics.
			Apply the concept of Encryption and Secrecy
			Understand about the Square free factorization
			Remember Modular arithmetic
	19MMAE0		Analyze Pseudo random numbers and sequences
1	9 5	Cryptography	Evaluate Public key cryptography
			Apply the concept of Automation
			Understand about the Regular Set

Remember converting NFA to DFA

	19MMAF0		Automata Theory	Analyze Ambiguous context free language
	20 6	Know the Ambiguous context free language		
				Apply the concept of combining HTML and PHP Code on a Single Page
				Understand about the Arrays
				Remember Operators and Expressions
		19MMAED		Analyze with Strings, Dates, and Time Formatting Strings with PHP
	21	_		Know Working with Cookies
				Apply the concept of linear transformations.
				Understand about Hilbert spaces.
				Rememberoperators.
	21MMA40 22 1	213434440	Functional Analysis	Analyze determinants and the spectrum of an operator.
				Know the Regular and singular elements.
				Apply the concept of Fourier sine and cosine Transform
				Understand about the Hankel transforms
				Analyze Integral equation
				Know the Applications of integral equation

23		Mathematical Methods	Remember Calculus of Variation
			Apply the concept of TEX and its offspring
			Understand about Command names and arguments
			Remember Document Layout and Organization
	19MMASB		Analyze Printing literal text
24	-	Latex(Theory)	Know the main elements of math mode
			Apply the concept of Software evolution and Oriented Programming
			Understand about the Tokens, Expressions and Control structure
			Remember the functions in C++
	19MMASR	C++ Programming	Analyze Classes and Objects
25	25 4	(Theory)	Know the Operators Overloading
			Apply the concept of Fuzzy Union and Fuzzy Intersection
			Understand about fuzzy relations
			Remember fuzzy measures
	19MMAF0	Fuzzy sets and	Analyze types of uncertainty
26		Fuzzy Logic	Know the Applications of fuzzy logic in different fields.

Apply the concept of Stochastic Approach.

Understand about States and chains.

Remember Poisson processes and their Extensions.

Stochastic 19MMAE0 Differential 27 8 Equation

Analyze Renewal process

Know the Queueing system

Apply the concept of linearization

Understand about Amplitude and frequency estimates

Remember Perturbation Methods

Non Linear 19MMAE0 Differential 28 9 Equation

Analyze general linear system and Floquet theory

Know the Stability of linear systems

M.Com

Acquire strong knowledge inputs in Commerce which caters the Local, National and Global requirements Acquire skill set to enter into a career either in Academics, Research or alternatively in other professiona areas of Commerce and Finance such as Taxation, Human Resources, Marketing and Financial services

Inculcate the knowledge of business and the techniques of managing the business.

Enhance the analytical skills and capability of making business decisions

Select and apply modern statistical tools for effective decision making

Strengthen the skill components and inculcate entrepreneurial capacity

Function effectively as an individual and as a member of teams in an organisation.

Inculcate sense of ethical responsibility and contribute to the society through active research

Acquire contemporary knowledge of business that will enhance the skills for lifelong learning

PROGRAMME OUTCOME (PO): Develop professional knowledge and interpersonal skills that fosters holistic development Impart the students with higher level knowledge and understanding of contemporary trends in Commerc Business Finance, Laws and regulations, Business operations, Capital Budgeting and Investment Decisions Prepare the students to apply statistical methods for analyzing Business data, Investments and Portfolio Management

> Enables the students to demonstrate progressive learning of various tax issues related to individuals an corporate.

Develop the skill to manage portfolios and make appropriate decision in the area of portfolio management

PROGRAMME SPECIFIC

OUTCOME (PSO): Course

S.No Code Course Name Demonstrate the ability to plan and undertake independent research in chosen discipline

Course Outcome

Prepare final accounts of companies

Provide knowledge on amalgamation, absorption and external reconstruction

Prepare the accounts of holding companies and gain idea of liquidation of companies

Apply accounts of banking company and insurance company

21MCM10 Corporate 1 1 Accounting

Develop the knowledge on Human Resource Accounting, Government Account and Responsibility Account

Interpret HR Policies

		Interpret HR Policies
	Human	Summarize the various functioning of HR Department
	Resource Management	Design tools for Performance Appraisal
21MCM	_	Demonstrate appropriate HR Competencies at the workplace.
2 2		Gain knowledge on emerging trends in HR
		Understand the basic concepts of International Business and factors affecting international Trade
		Learn the various international business environment and various risks in international business Gains the knowledge regarding EXIM policy, Balance Of Payments and the problems faced in international trade
21MCN	410 International	Understand the basic procedure for conducting an Export business
3 3	Business	Gain the knowledge of conducting an Import business
		Understand the basics of banking law and the rights of the customers.
		Familiarize with the instruments in bank and its practical application.
		Gain Knowledge on the various advancements in banking sector and the tools of online banking.
21MCM		Understand essential elements of contracts and its application in insurance industry
4 4	Insurance	Understand the nature of regulation in the Insurance industry.  Identify the perception and significance of business environment and realize the types of environment impact of environment of business and public responsibilities of business

			Classify the different economic systems, economic planning and develop the new industrial policy.
	21MCM10	Business	Recognize and describe the Globalization and FDI and know the social ethics of the Business. Categorize the different technological environment and to develop the awareness of Constitution environment.
5	5 5	Environment	Classify the different technological and management technology and the impact of technology in business.
			Define and learn the importance of Managerial Economics in Decision Making in Business.  Understand the Supply and its Determinants, Production functions and Cobb-Douglas function, Cos
			concepts, Economies and diseconomies of scale.  Distinguish the types of Competition in Market Structure such as Perfect, Monopoly, Monopolistic and
			Oligopoly competitions, Methods of Pricing and Government intervention in Pricing. Understand the meaning of Profit and Profit Policies besides Planning, Cost volume profit analysis and
	21MCM10	Mangerial	Investment analysis Educate the importance of National income and Business Cycle, inflation and deflation, Balance c
	5 6	Economics	payments, Monetary and Fiscal policies. Understand the fundaments of cost accounting, cost sheet preparation, Reconciliation of Cost and Financia Accounts
			Gains the knowledge on various stock levels and material issuing techniques.
			Demonstrate wage calculation and overheads absorption techniques
	21MCM20	Advanced Cost	Apply the Process costing, Job costing, Service costing
7 1	_	Accounting	Apply Marginal costing techniques and cost audit.
			Recognize the essential principles underlying the Indirect Taxation Statutes Identify and analyze the technical aspects under disparate relevant statutes related to indirect taxation and to know the kinds of GST.

		Scrutinize the concepts used in indirect tax, assessment, powers, duties, offences, penalties etc. and categories of GST exemptions
21MCM20	Indirect	Discriminate the registration procedure and to analyse the Goods and Service Tax System
8 2	Taxation	Examine Practice the application of GST and Mechanism of GST, Implementation of GST. Understand the nature, scope and importance of Marketing, marketing environment and its components an market segmentation  Gain knowledge on production, production decisions, product mix and factors affecting the pric determination
		Demonstrate the various channels of the distribution
21MCM20	Marketing	Aware of promotional techniques and prepare advertising budget
9 3	Management	Acquire the knowledge regarding social, ethical and legal aspects of marketing
		Define and identify the concepts of Financial Management
		Understand Cost of Capital and Capital Budgeting techniques for strategic Financial Decision Making Understand types of leverages and analyze in-depth principles of capital structure theories like net incom approach, net operating income approach and MM hypothesis.
21MCM20	Financial	Explain the concept of leasing and various dividend theories
10 4	Management	Familiarize with various types of management- working capital, cash, receivables Management.
		Remember the Scope and significance of Business research
		Understand the concepts of sampling techniques
		Evaluate correlation and regression

21MCM20	Business Research	Apply the test of Hypothesis
11 5	Methods	Analyze the test of significance for attributes
		Identify the Foreign Exchange Markets and its exchange rates
		Examine the future contract, Forward contract, Exchange trade and OTC options
	Foreign Exchange Management	Determine the supply and Demand of Exchange rate and modern theories of Exchange rates
2114614E0		Analyse the exchange rate and strategies for exposure management techniques
21MCME0 12 1		Interpret different forms of taxes and treatment of foreign exchange gains and losses. Gain the knowledge regarding Export Promotions in India, Government and State Trading Corporations an State Export
		Learn the Concept of role of RBI in Export finance, role of Commercial Banks, EXIM Bank and ECGC
	Institutional Facilitating International Trade	Understand the concept of GATT, WTO Functions, TRIMS and TRIPS objectives
21MCME0		Able to Gain the knowledge of IMF objectives Resource facilities, SDR and World Bank
13 2		Learn the Concept regarding IDA objectives, IFC objectives, features , ADB and UNCTAD functions
		Understand the growing importance of Logistics management
		Understand fundamental supply chain management concepts.
		Apply knowledge to evaluate and manage an effective supply chain.
	Logistics and	Understand the foundational role of logistics as it relates to transportation and warehousing.

21MCME0 14 3	Supply Chain Management	To align the management of a supply chain with corporate goals and strategies.
		Evaluate the concepts and schedule of tax rates, tax liability, penalties and prosecution
		Know the total taxable income of an assessee
		Apply and practice the computation of total income.
19MCM30		Know the Determination of Cost of Acquisition and Deduction of Tax at Source.
15 1	Direct Taxes	Analyse the Computation of Tax Liability, deductions, E-Filing & its Procedures.
		Know the scope and importance of investment.
		Understand the patterns of investment in different schemes.
		Acquire knowledge about the various stock exchanges and Securities market.
19MCM30 16 2	Investment Management	Gather knowledge about valuation risk and returns in securities.
		Acquire complete knowledge about portfolio management.
		Know the importance and concepts of Industrial Relations.
		Know the impact and causes of Industrial Conflicts.
		Know the concepts and education of Labour Welfare Measures
19MCM30	Labour Law And Industrial	Know the categories of Labour Welfare Act.
17 3	Relations	Acquire a complete knowledge about Employee benefit schemes.

		Acquire knowledge about e-commerce applications.
	E-Commerce and MIS	Gain skills about online payments and models of e-commerce applications.
		Know the importance and role of Management information systems.
10MCM20		Understand the concepts and categories of Information System.
18 4		Gain knowledge about functional Management and business process.
		To train the students to attain basic practical skills
		To train the students to attain practical skill essential for modern office MS-WORD.
		To train the students to attain practical skill essential for modern office MS-EXCEL.
19MCMP0	Computer Application In Business	To train the students to attain practical skill essential for modern office MS – POWERPOINT.
19 1		To train the students to attain practical skill essential for MS - ACCESS
		Know and understand the concepts of investment Environment.
		Understand the methodology of Industrial analysis.
	Security Analysis And Portfolio Management	Know the risk and returns of management of Securities.
19MCMF0		Understand the impact of Portfolio theory.
20 4		Evaluate the revision of Portfolio and Time Weighted Returns.
		Understand the concept of various security analysis and its risk, return

			Know the factors influencing technical analysis and its tools.
19MCME0 21 5		Know the market analysis, NSE and BSE	
	10MCME0	Fundamental	Analyse the various theory and its use in Investments.
	Analysis  Analysis	Provide technical to get an overall idea of the trends in moving average related to commodity market	
			Provide knowledge the concept of derivative market
			Give knowledge about the index movement Nify and Sensex
			Understand the forward market and future market
	10MCME0	Futures And Options	Analyse the Hedging ,Speculation and arbitrage in commodity market.
22			Evaluation of commodity market in India and other countries.
		Acquire a basic and clear understanding of philosophical ethics	
		Understand the principles of moral decision-making in global business.	
			Identify the trade-offs that face an ethical manager.
19MCMED 23 1	10MCMED		Understand how competitive advantage maps on to corporate social responsibility.
			Acquire ethical frameworks, so as to attack moral problems critically and comprehensively.
			Understanding the basics of Cost Audit and maintenance of Cost Audit
		Inculcate knowledge about Cost Audit Report.	

Understand the rules and procedure of cost accounting.

19MCMAC 24 2	Cost Audit and Operational Audit	Know the techniques and operations of Audit
		Learn the various types of Audit. Identify differences between various forms of accounting—Financial, Managerial and Cost and the role of Management Accountant.
		Understand various financial statement Analysis.
	Management Accounting	Evaluate ratio analysis for measuring the financial performance.
19MCM40		Analyze the fund flow and cash flow statements.
25 1		Understand about Different Budgets and budgetary control.
		Understand the concept of strategic management and formulation of strategic management.
		Know about the Competitive Advantage of Nations and its implication on Indian Business. Understand about the Mergers and Acquisitions, Takeovers, Joint Ventures, Diversification, Turnaround Liquidation
19MCM40	Strategic Management	Gather knowledge regarding various Strategy Evaluation and Control.
26 2		Know about Corporate Social Responsibility in India.
		Know about Entrepreneur ial Environment
		Know about Role of Consultancy Organizations in Promoting Entrepreneurs.
	<b>-</b> .	Understand about preparation of project report and presentation

	19MCME0	Enterpreneurshi p And Small	Understand about Small Business Paths and Plans.
27		Management	Provide Knowledge about Role of Marketing and Finance in the Small business.
			Acquire knowledge about the concepts and approaches of micro finance
			Analyse financial statement of managing financial performance and the role of subsidies
			know about the market evaluation and pricing of financial service
	19MCMF0	Micro Finance	Understand the governance and constitutions of MFI and its intermediaries
28		Management	Study the emerging issues and women empowerment in micro finance.
		Retail Marketing Management	Know the concepts and Trends in Retailing
			Acquire knowledge about segmentation in retailing
			Understand about retail merchandising management
	10MCMF0		Know about development and growth of e -tailing
29			Understand about Global retail markets retailing and Global retailing strategic.
M.Sc(	Computer Sc	ience)	
			Get core competence in various subjects of Computer Science.
			Recognize the organizational need and to engage themselves in continuing professional development.
			Apply knowledge of computing and mathematics appropriate to the discipline.

Design, implement, and evaluate a computational system to meet the desired needs within realist constraints.

Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling ar design of computational systems in a way that demonstrates comprehension of the tradeoffs involved in

Function effectively on teams to accomplish shared computing design, evaluation, or implementation goals.

Recognize the need for and ability to engage in continuing professional development.

Use appropriate techniques, skills, and tools necessary for computing practice. Identify, formulate, develop solutions to computational challenges. Understand professional, ethical, lega security, and social issues and responsibilities for the computing profession.

PROGRAMME OUTCOME (PO): Apply design and development principles in the construction of software systems of varying complexity

Able to handle any kind of software development

Able to maintain the software network to handle the technological challenges.

Able to develop strong analytical skills, critical thinking and experimental skills.

Able to solving on Computational problems, system networking knowledge, use of technology. To Enhance skills and adapt new computing technologies for attaining professional excellence and carryin

research

PROGRAMME SPECIFIC OUTCOME (PSO):

Course

S.No Code Course Name Course Outcome

CO1 Identify the space and time complexity of various algorithms.

CO2 Analyze the algorithms using divide and conquer methodology.

CO3 Evaluate the algorithms using dynamic programming mechanism.

	Core 1:Design and Analysis of	CO4 Apply the backtracking methodology to solve the problems.
1 21MSC101 A	•	CO5 Know the basic concepts of NP-Hard and NP-Complex Problem and construct it.
	Core 2:Advanced Operating Systems	CO1 Describe and explain the fundamental components of a computer operating system. CO2 Define, restate, discuss, and explain the policies for scheduling, deadlocks, memory managemen synchronization, system calls, and file systems.
		CO3 Describe and extrapolate the interactions among the various components of computing systems. CO4 Design and construct the following OS components: System calls, Schedulers, Memory management systems, Virtual Memory and Paging systems.
		CO5 Measure, evaluate, and compare OS components through instrumentation for performance analysis. CO1 Develop understanding on various kinds of research, objectives of doing research, research process and research designs.
		CO2 Understand and describing the method of collecting data and sampling it. CO3 Have adequate knowledge on measurement & scaling techniques as well as the quantitative dat analysis.
	Core 3:Research	CO4 Have basic awareness of data analysis-and hypothesis testing procedures.
3 21MSC103		CO5 Formulate and writing practices in research report.
		CO1 Able to know the evolution of object model
		CO2 Applying the different notations for classes and objects.
		CO3 Analyzing the important concepts like polymorphism, inheritance and virtual functions using classes.
	Oriented	CO4 Able to construct the standard template library classes.

	4 21MSC104	Analysis and Design	CO5 Evaluate the STL algorithms using string and numeric classes CO1 Able to understand the different stages of compiler as well as the working principles of lexica analysis.
			CO2 To evaluate the mechanism of different types of parsing techniques.
		Core	CO3 To realize the techniques for creating intermediate code generation.
		5:Principles of	CO4 Identify the issues at the time of designing code generator
	5 21MSC105	Compiler Design	CO5 Analyze the optimization techniques to the principle sources of code generation.
			CO1 Understand basic Structure of the C-Programming, declaration and usage of variable.
			CO2 Create the C programs using operators.
		Core Practical	CO3 Exercise the conditional and iterative statements to write C programs.
	6 21MSCP01	1:Object Oriented Analysis and Design Lab	CO4 Designing the C programs using Pointers to access arrays, strings and functions. CO5 Develop the C programs using pointers and allocate memory using dynamic memory management functions.
		CO1 Ability to analyze, design, verify, validate, implement, apply, and maintain software systems	
			CO2 Ability to design a system, component, or process to meet desired needs within realistic constraints
		Core	CO3 Ability to identify, formulate, and solve engineering problems
		6:Advanced	CO4 An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice
	7 21MSC201	Software Engineering	CO5 Ability to work in one or more significant application domains

		CO2 To understand the functionality of datagram delivery and error.
8 21MSC202	Core 7:Networking and Communication Technologies	CO3 Ability to analyze the various layers of different protocols. CO4 Choose key Internet applications and their protocols, and apply to develop their own applications (e.g Client Server applications, Web Services) using the sockets API. CO5 To develop effective communication mechanisms using techniques like online connection establishment, queuing theory, recovery, etc.
		CO1 Ability to understand enterprise edition of java and database connectivity
		CO2 Grasp the knowledge about servlet activities
	Core	CO3 Understanding the ability to apply java to develop web pages
	8:Advanced	CO4 Explore programming techniques of Java beans and swing
9 21MSC203	Java Programming	CO5 Know about Java Persistence Query Language CO1 Understand the multi-tier architecture of web-based enterprise applications using Enterprise JavaBean (EJB).
		CO2 Learn to access database through Java programs, using Java Data Base Connectivity.
10 21MSCP02	Java Programming	CO3 Create dynamic web pages, using Servlets and JSP. CO4 Evaluate a full set of UI widgets and other components, including windows, menus, buttons checkboxes, text fields, scrollbars and scrolling lists, using Abstract Windowing Toolkit (AWT) & Swings. CO5 Applying the Map Java classes and object associations to relational database tables with Hibernate mapping files
		CO1 Ability to understand the distributed system and available resources.

CO1 To apply the various standards on data communication.

CO3 Finding the importance of naming and clusters in distributed systems. Elective I: CO4 Examine the reasons for getting faults and making reliable communications. CO5 Applying the core concepts of distributed systems by which several machines orchestrate to correctly Distributed solve problems in an efficient, reliable and scalable way. 11 21MSCE01 Computing CO1 Able to appreciate the necessity of grid computing and thus its evaluation CO2 Ability to understand the architecture of grid computing CO3 To Understand and explain the key concepts of open architecture CO4 To identify the resource selection for Grid environment Elective I: Grid 12 21MSCE02 Computing CO5 To understand the recent versions of Globus toolkit CO1 Describe and explain the fundamental components of a wireless communication. CO2 Define, discuss, and explain the Wireless Transmission: Frequencies for radio transmission Regulations, Antennas, Signal Propagation, Path loss of radio signals, Additional signal propagation effects. CO3 Describe and extrapolate the interactions among the various components of computing systems. CO4 Design and construct the following Satellite Systems: Basics ,GEO, LEO, MEO, Routing Elective I Localization, Handover, Examples :Mobile CO5 Wireless LAN, Infrared vs radio transmission, Infrastructure and ad-hoc network, IEEE 802.11 ,System Protocol Architecture, Physical Layer, Medium Access Control Layer, MAC Management 13 21MSCE03 Computing CO1 Describe the Python language syntax including control statements, loops and functions to writ programs for a wide variety problem in mathematics, science, and games.

CO2 Examine the core data structures like lists, dictionaries, tuples and sets in Python to store, process and

CO2 Identify the important issues in threads and clusters.

sort the data.

14 21MSCP03	3:Python Programming	CO3 Interpret the concepts of Object-oriented programming as used in Python using encapsulatior polymorphism and inheritance.  CO4 Discover the capabilities of Python regular expression for data verification and utilize matrices fo building performance efficient Python programs.  CO5 Identify the external modules for creating and writing data to excel files and inspect the file operatior to navigate the file systems.
		CO 1: Understand the technology and standards relating to IoT.
		CO 2: Understand IoT in real world perspective
		CO 3: Analyze basic protocols of IoT.
15 19MSC301	INTERNET OF THINGS	CO 4: Understand the critical parts of the ICT ecosystem required to mainstream IoT. CO 5: Acquire ideas about IoT in cloud computing strategies
		CO 1: Describe what Information Security and Authentication is.
		CO 2: Appreciate the value of Biometrics
		CO 3: Understand the concepts of Cryptography and Steganography.
16 19MSC302	INFORMATIO N SECURITY	CO 4: The importance of Network Security and Firewalls
		CO 1: Understand the functionalities of various data warehousing components
	~.~.	CO 2: Know about data mining analogies, effectives and methodologies. CO 3: Analyze the various data mining techniques such as classical, clustering and next generation techniques in detail.

	DATA MINING AND WAREHOUSI	CO 4: Describe the range of techniques for designing data mining systems for CRM applications
17 19MSC303	NG	CO 5: Aware of using text mining technologies and products
		CO 1: Understand the technology and standards relating to server side scripting languages
		CO 2: Understand the fundamentals of XML with data design
		CO 3: Know the basics of JavaScript and JQuery scripting language
10.101/19.00	WEB TECHNOLOG	CO 4: Understand the basics of PHP scripting language with database connectivity
18 19MSC304	Y	
		CO 1: Analyze a web page and identify its elements and attributes.
		CO 2: Create web pages using XHTML and Cascading Style Sheets
	PRACTICAL	CO 3: Build dynamic web pages using JavaScript (Client side programming).
	3: WEB TECHNOLOG	CO 4: Create XML documents and Schemas
19 19MSCP03	Y LAB	CO 5: Analyze given assignment to select sustainable web development and design methodology CO 1: Gain knowledge and awareness of the basic principles and concepts of biology, computer science an mathematics
		CO 2: The students will be able to describe the contents and properties of the most important bioinformatic databases, perform text- and sequence-based.
	ELECTIVE II:	CO 3: searches, and analyze and discuss the results in light of molecular biological knowledge. CO 4: The students will be able to explain the major steps in pairwise and multiple sequence alignmen explain the principle for, and execute pairwise sequence alignment by dynamic programming

	BIOINFORMA	
20 19MSCE0	4 TICS	CO 5: The students will be able to predict the secondary and tertiary structures of protein sequences
		CO 1: Understand basic knowledge of fuzzy sets and fuzzy logic.
		CO 2: Provide an emphasis on the differences and similarities between fuzzy sets and classical sets theories
	ELECTIVE II: NEURAL	CO 3: Apply basic fuzzy inference and approximate reasoning
	NETWORKS AND FUZZY	CO 4: Understand principles of neural networks.
21 19MSCE0		CO 5: Apply basic fuzzy system modelling method
		CO 1: Understand fundamentals of wireless communications CO 2: Analyze security, energy efficiency, mobility, scalability, and their unique characteristics in wireles networks
	ELECTIVE II:	CO 3: Demonstrate basic skills for cellular networks design
22 19MSCE(	WIRELESS APPLICATIO	CO 4: Apply knowledge of TCP/IP extensions for mobile and wireless networking. CO 5: To compare and contrast multiple division techniques, mobile communication systems, and existing wireless networks
		CO 1: The students should be able to Know and understand the basics and fundamentals of digital imag processing, such as digitization, sampling, quantization, and 2D-transforms.
		CO 2: Operate on images using the techniques of smoothing, sharpening and enhancement.
22 10MGC40	DIGITAL IMAGE	CO 3: Understand the restoration concepts and filtering techniques. CO 4: Learn the basics of segmentation, features extraction, compression and recognition methods for colo models. CO 5: They can understand the need for image transforms different types of image transforms and their
23 19MSC40	1 PROCESSING	properues

CO 1: Technical foundation of cracking and ethical hacking

CO 2: Identify and analyze the stages an ethical hacker requires to take in order to compromise a targe system.

CO 3: Identify tools and techniques to carry out a penetration testing.

ELECTIVE III: CO 4: Critically evaluate security techniques used to protect system and user data.

CO 5: Demonstrate systematic understanding of the concepts of security at the level of policy and strategy i ETHICAL

24 19MSCE07 HACKING a computer system.

> CO 1: Demonstrate fundamental understanding of the history of artificial intelligence (AI) and it foundations

CO 2: Apply basic principles of AI in solutions that require problem solving, inference, perceptio knowledge representation, and learning.

CO 3: Demonstrate awareness and a fundamental understanding of various applications of AI techniques i intelligent agents, expert systems, artificial neural networks and other machine learning models.

ARTIFICIAL **INTELLIGEN** 

ELECTIVE III: CO 4: Demonstrate proficiency developing applications in an 'AI language', expert system shell, or dat mining tool.

25 19MSCE08 CE

CO 5: Demonstrate proficiency in applying scientific method to models of machine learning CO 1: Apply modern software testing processes in relation to software development and project management.

CO 2: Create test strategies and plans, design test cases, prioritize and execute them

CO 3: Manage incidents and risks within a project.

CO 4: Contribute to efficient delivery of software solutions and implement improvements in the software

ELECTIVE III: development processes.

CO 5: To gain expertise in designing, implementation and development of computer based systems and I SOFTWARE

26 19MSCE09 TESTING processes.

#### COMMON COURSES

HIND	I Course		
S.NO	Code	Course Name	Course Outcome
			To Acquire Proficiency in Language and Communication Skills
		HINDI I (For	To enable the students to be competent in job sector.
1	21LAHI01	all I year UG Programmes)	To build Confidence and develop personality.
			To develop Oral communication in the language
		HINDI II (For	To develop human and cultural values.
2	2 21LAHI02	all I year UG Programmes)	Functional Hindi is given more weightage to have access to Official Language.
		HINDI III (Only for II B.Sc (Math), II	Syllabi include different trends in literature to obtain advanced knowledge.  Great personalities and their teachings are introduced to instill ethics and human values for personalit developement
		B.Sc (Viscomm)& II	Functional Hindi specifically designed for Banking and Government sector to enhance employability.
3	19LAH IO3	,	Develop confidence and leadership quality by taking part in Out campus programs Classic works in Literature and parts from Epics are introduced to imbibe the knowledge of culture and history, at the same time help to inoculcate
		B.Sc (Viscomm)& II	Competency in job sector is enhanced through promotion of communication skills- both written and verbal.
4	19LAHI04	,	Develop confidence and leadership quality by taking part in Out campus programs

TAMIL

Course			
S.NO Code	Course Name	Course Outcome	
		CO1 :Developing Poetry Skills.	
		CO2 :Recognizing Literary Skills.	
		CO3 :Developing Creative Skills.	
	TAMIL-I (For all I year UG	CO4 :Developing The Common Skills.	
1 21LATA0	1 Programmes)	CO5 :Application Training.	
		CO1 :Knowing Sangam literature.	
		CO2 :Realizing The Glory of Thrukkural.	
	TAMIL -II (For all I year UG Programmes)	CO3 :Encouraging Books Reading.	
		CO4 :Knowing Folk literature.	
2 21LATA0		CO5: Knowing Novel Growth.	
		CO 1: Recognizing Literary Skills.	
		CO 2: Developing Imagination Skills.	
	TAMIL - III (Only for II	CO 3: Promoting literacy.	
	` •	CO 4: Recognizing Dramatical Skills.	
3 19LATA0	` ′	CO 5: Recognizing the common good.	

CO 1: Knowing the merits of the devotional movement.

CO 2: Develop the ability to read quickly and without error.

TAMIL IV

CO 3: Knowing grammar.

(Only for II

B.Sc (Math), II CO 4: Develop discussion skills.

B.Sc (Viscom)

4 19LATA04 & II BA (Eng)) CO 5: Practice writing essays.

CO1. Other Language Students Know Tamil

CO2. Reading stories and learning virtue.

**BASIC TAMIL** 

( Only for those  $_{\mbox{\footnotesize CO3}}.$  Knowing the traditional festivals of Tamils.

who have not

studied Tamil CO4. Knowing the object by looking at the picture.

upto their HSC

5 19BTA001 level) CO5. Discussion

CO1. Developing Imaginary Skills.

**ADVANCED** 

CO2. Promoting reading skills.

**TAMIL** 

( Only for those  $_{\hbox{\scriptsize CO3}}.$  Knowledge of Sangam literature.

who have not

studied Tamil CO4. Developing employment skills.

upto their HSC

6 19ATA001 level) CO5. Developing the ability to write letters and essays.

**FRENCH** 

Course S.No Code		Course Name	Course Outcome	
			Basic level of Comprehension	
		FRENCH - I (For all I year UG	Understanding of tenses	
			Exploring of Language translation	
		Programmes Except B.Sc	Identification of Number in French	
1	21LAFR01	(CS & HM))	Developing sentence Formation	
		FRENCH-	Understanding of Formation of Questions	
		II(For all I year UG	Change of sentence in Negative	
		Programmes Except B.Sc	Understanding Future Tense	
2	2 21LAFR02	-	Gender Identification and Allocation	
		(only for II B.Sc. (Maths),	Acquire Grammatical skill	
3	19LAFR03		Develops communications skills	
		(only for II B.SC (Maths),	Acquire linguistic skills	
		II B.Sc(Viscomm)	Develops communications skills	
4	19LAFR04	` ′	Developed their intellectual, personal and professional abilities	

MALAYALAM

S.No	Course Code	Course Name	Course Outcome
		MALAYALA	To know the beauty of the coherence of Language and Literature.
	21LAMY0	M -I (For all I	To demonstrate the awareness of evolution theory of language by varied culture.
1	. 1	Programmes)	To explore literary elements Understand the social, historical and political backgrounds of the world of the novelists and short stor
		MALAYALA M -II (For all I	writers through the elaborate and allegorical descriptions in the prescribed novels.  To gain knowledge in the development of literature from man's physical exploration to social an
2	21LAMY0 2.2	year UG	psychological journeys.  To enhance the Reading skills and understand, how to represent their experience and ideas critically creatively, and influentially through the medium of language.
2	. 2	Programmes) MALAYALA M -III (Only	To understand and appreciate poetry as a literary art form.
		for II B.Sc (Math), II B.Sc	
3	19LAMY0	(Viscom) & II BA (Eng)) MALAYALA	To facilitate their writing skills
		M -IV (Only for II B.Sc	Conceptualize various types of drama viz. Tragedy, Comedy, Farce, Melodrama, Historical Plays through the prescribed texts and analyze the effect they create in the audience or readers.  Interpret literary texts in Malayalam by nurturing and utilizing their ability to understand drama in a skilled
	19LAMY0	(Math), II B.Sc (Viscom) & II	
4	4	BA (Eng))	Become well acquainted with the rhetorical aspect of Drama, historical contexts and psycho-social aspects.
PART	II - ENGLIS Course	SH	
S.No	Code	Course Name	Course Outcome Identify a variety of forms and genres of poetry from diverse cultures and historic periods, such as haiku sonnets, ballads, dramatic monologues, free verse, etc.

English I (For Relate the literary effect and content.

all UG

1 21ENG001 Programmes) Evaluate a theatrical performance for its effective use of music, dance, or visual arts.

Recognize the rhythms, metrics and other musical aspects of poetry.

English II (For Apply active and passive vocabulary.

all UG

2 21ENG002 Programmes) English III Make use of role plays after studying the one act plays with its strategies.

(only for II Analyze the critical judgments about Shakespeare's works and develop a literary interpretation.

B.SC

(MATHS), II Understand the textual analyses of one of the greatest tragedies of Shakespeare

B.Sc(Viscomm)

3 19ENG003 & II BA (Eng)) Analyse and interpret the masterpieces of R.K.Narayan

Inculcate the communicative behavior among students.

English –

IV(only for II Introduce the language learning methods through literature.

B.SC

(MATHS), II Enable the students to realize the various contexts of English for their best usage of the Language

B.Sc(Viscomm)

4 19ENG004 & II BA (Eng)) Understand the basics of grammar

## PART IV COMMUNICATIVE ENGLISH

PAKI IV-

COMMUNICA Enhance the learner's communication skills.

TIVE

**ENGLISH** Help the learners to develop their listening skill.

(For all II year

1 19EDC001 UG Science Steer conversations and influence people.

## PART IV ENVIRONMENTAL STUDIES

PAKI IV-

**ENVIRONME** Explain conservation and management of natural resources like forest, water, air, mineral, etc.

**NTAL** 

**STUDIES** Analyze interrelationships between living organisms and the environments in which they live.

(All I year UG

Apply knowledge and understanding of theories in the field of Biodiversity. 1 19UFCA01 programmes)

#### PART IV VALUE EDUCATION

PART IV -To develop an understanding of values education strategies

**VALUE** To consider the relation between values and personal behaviour affecting the achievement of sustainab

EDUCATION futures;

(All I year UG

1 19UFCA02 programmes) To reflect on your futures awareness, commitment and actions

#### **ALLIED: MATHEMATICS**

Course

Course Outcome S.No Code Course Name

Col: Remember set theory concepts and to analyze the applications of business problems

21BBAA01

CO2: To understand the concepts of Matrices, its types and to solve simultaneous equations **BUSINESS** 

21BACA01 MATHEMATI CO3: Analyze the measures of central tendency and to apply its concepts

CS AND

**STATISTICS** CO4: To Analyze the measures of dispersion and to apply its concepts

(BBA & BBA

CO5: To correlation, Regression and its properties to apply its concepts CA)

CO1: Understand the meaning, scope, Models of Operations Research and create mathematical formulatio

of LPP to solve Graphical method

	21BBAA02 /		CO2: To understand the concept of Transportation and Assignment problems and its type
4	21BACA02	OPERATIONS	CO3: To analyze the decision making using the concept of Game theory
		RESEARCH (BBA & BBA	CO4: Understand the CPM, Network concepts and its Types
2	212001101	CA)	CO5: To understand the concepts of PERT to find the probability of completion of projects
	/ 21BITA01/		Co1: To understand the system of linear algebraic equations and to analyze the various method
	21BCTA01 /	AND STATISTICS	Co2: To understand and analyze concepts of Numerical Intepolation, Numerical Integration and its types
	21BCAA01	(B.Sc. Computer	Co3: Analyze the measures of central tendency and to apply its concepts
		Science, BCA, B.Sc. IT &	Co4: To analyze the measures of dispersion
3		B.Sc. CT)	Co5: To understand the meaning of correlation, Regression and its properties
	/	DISCREATE MATHEMATI	C0 1: To understand the concepts of set theory, fundamental product and duality principle Co2: To understand and analyze concepts of mathematical logic, proportional calculus and predicate calculus
		CS (B.Sc. Computer	Co3: Analyze types of relation and types of functions to solve Co4: To understanding the concept of formal languages, Grammar, finite state automata and to apply its concepts
4	J.	Science, B.Sc. IT & B.Sc. CT)	Co5: To understand the meaning of Graph , Types of graphs , its basic theorems and to apply its concepts $tc$ solve
	21BCCA03		Col: Remember set theory concepts and to analyze the applications of business problems
	21BCSA03	BUSINESS	CO2: To understands the concepts of Matrices, its types and to solve simultaneous equations

		/	MAIHEMAII	
		21BCIA03	CS (B.Com.,	Co3: Apply the concepts of limits and differentiation in Business problems
			B.Com. CA, B.Com. CS &	Co4: To solve Gauss elimination , Gauss Jordon and to analyze various methods of numerical integration
	5		B.Com. IT)	Co5: To understand the concepts of Interpolation
		21BCCA04 /		Co1: To understand the meaning, scope of statistics and its basic concepts
		21BCMA0 4/	BUSINESS	Co2: Analyze the measures of central tendency and to apply its concepts
		21BCIA04	STATISTICS (B.Com.,	Co3: To analyze the measures of dispersion
			B.Com. CA, B.Com. CS &	Co4: To understand the meaning of correlation, Regression, types and its properties Co5: To understand the concepts of Time series, Method of least squares and Index numbers. And to
	6	21BITA04/	B.Com. IT)	analyze its methods Co1:To create the formulation of LPP and to evaluate various methods of LPP namely Graphica method,Simplex method and Big-M method
		21BCAA02	OPERATIONS RESEARCH	CO2: To understand the concept of Transportation and Assignment problems and its type
		3	(B.Sc. Computer	CO3: To analyze the decision making using the concept of Game theory
			Science, BCA, B.Sc. IT &	Co4: To analyze the concept of Queing Theory and its methods
	7		B.Sc. CT)	CO5: To understand the concepts of PERT to find the probability of completion of projects
-	ALLIE	ED: ACCOU COPURSE		
	S.NO	CODE	NAME	COURSE OUTCOME

Acquired some knowledge about accounting

# Know about subsidiary books

Business Accounting	Getting knowledge about branches of accounting
21BCAA03 (BCA & B.Sc.	Preparation of Accounts from incomplete records
/ Computer 1 21BSCA04 Science)	Get some ideas about organisation Business and Account Model

# DETAILS OF TOTAL COURSES

## NO OF COURSES UNDER UG PROGRAMMES

SL.	NAME OF THE PROGRAMME	NO. OF COURSES
NO.	FROGRAMME	NO. OF COURSES
1	B.B.A.	37
2	B.B.A. (CA)	37
3	B.Com.	37
4	B.Com. CS	38
5	B.Com. IT	38
6	B.Com. CA	39
7	B.Com. PA	31
8	B.Sc. ECS	36
9	B.Sc. CS	35

10	B.Sc. IT	36
11	B.Sc. CT	36
12	B.SC. MATHS	36
13	B.Sc. VISCOM	35
14	B.Sc. CDF	33
15	B.Sc. CS&HM	40
16	BCA	34
17	B.A. ENGLISH	25
	SUB TOTAL	603
NO C	OF COURSES UNDER PG PR M.Sc. ELECTRONICS	OGRAMMES
18		28
19	M.Sc. MATHEMATICS	28
20	M.B.A.	45
21	M.Com. M.Sc. COMPUTER	29
22	SCIENCE	26
	SUB TOTAL	156

	COMMON COURSES	
	SEPERATELY SHOWN	33
	COMMON	
	COURSES	
18	BBA / BBA-CA	23
	B.Com. / B.Com. CA /	
19	B.Com. CS / B.Com. IT	1
	B.Com. CA / B.Com. IT/	
20	B.Com.	1
	B.Com. CA / B.Com. IT/	
21	B.Com. CS	2
22	D.C. CA / D.C.	1
22	B.Com. CA / B.Com.	1
23	B.Com. PA / B.Com.	1
23	D.Com. 1A / D.Com.	1
24	B.Com. PA / B.Com. CA	1
25	B.Com. IT/ B.Com. CS	4
	B.Sc. CS / B.Sc. IT / B.Sc.	
26	CT / BCA	1
2=		_
27	B.Sc. IT / B.Sc. CT / BCA	2
28	B.Sc. CS / B.Sc. CT	1
20	D.Sc. C5 / D.Sc. C1	1
29	B.Sc. CS / BCA	1
30	B.Sc. IT / B.Sc. CT	26
SUB '	ΓΟΤΑL	65

