

**VLB JANAKIAMMAL COLLEGE OF ARTS AND SCIENCE  
AUTONOMOUS**

**STUDENT PERFORMANCE AND LEARNING OUTCOMES**

**BBA**

|   |                    |                                     |   |
|---|--------------------|-------------------------------------|---|
| <b>PROGRAMME OUTCOME (PO):</b>          |                    |                                     | Develop the knowledge, skill and attitude to creatively and systematically to solve the management problems and work effectively in modern business organizations                           |
|   |                    |                                     | Demonstrate the critical thinking mindset and the ability to identify and formulate research and to provide valid conclusions and contextual approaches across a variety of subject matter. |
|   |                    |                                     | Analytical, logical and managerial skills with the technical aspects to resolve real world issues.  |
|   |                    |                                     | The main objective of the programme is to understand the student about the business and people in the society.  |
|   |                    |                                     | The programme intends to train the students to become competent enough for entry level management professionals.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO)</b> |                    |                                     | Graduates will be capable of making a positive contribution to business, trade and industry in the national 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.                 |
|   |                    |                                     | The programme provides the student to understand the basics of business, skill and variety of disciplines.  |
| <b>S.No</b>                             | <b>Course Code</b> | <b>Course Name</b>                  | <b>Course Outcome</b>   |
| 1                                       | 18BBA101           | PRINCIPLES OF MANAGEMENT            | Understanding the concepts of management and administration   |
|   |                    |                                     | know about various functions of management  |
|   |                    |                                     | Acquired knowledge in MBO   |
|   |                    |                                     | Getting knowledge about Management process  |
|   |                    |                                     | Understand about Budgetary control and auditing in an organisation  |
| 2                                       | 18BBA102           | FINANCIAL ACCOUNTING                | Acquired some knowledge about accounting  |
|   |                    |                                     | Know about subsidiary books   |
|   |                    |                                     | Helps to Prepare final accounts   |
|   |                    |                                     | Getting knowledge about branches of accounting  |
|   |                    |                                     | Preparation of Accounts from incomplete records   |
| 3                                       | 18BBA201           | ORGANIZATIONAL BEHAVIOUR            | Clearly know about organisation and its functions   |
|   |                    |                                     | Helps to know Perception and motivation concepts  |
|   |                    |                                     | Know about different leadership styles  |
|   |                    |                                     | Getting knowledge about group and managing conflicts  |
|   |                    |                                     | Get some ideas about organisation climate and culture   |
| 4                                       | 18BBA202           | BUSINESS ECONOMICS                  | Helps to understand business firm   |
|   |                    |                                     | Understand demand elasticity  |
|   |                    |                                     | Know about production functions   |
|   |                    |                                     | Know about cost and revenue   |
|   |                    |                                     | Understand different Pricing and structure  |
| 5                                       | 15BBA301           | MARKETING MANAGEMENT                | Understanding Marketing   |
|   |                    |                                     | Know about buyer behaviour  |
|   |                    |                                     | Get to know Products and its types  |
|   |                    |                                     | Understand Pricing Policies   |
|   |                    |                                     | Know about different advertising medias   |
| 6                                       | 15BBA302           | PRODUCTION AND OPERATION MANAGEMENT | should have acquired knowledge about production management  |
|   |                    |                                     | Understand Recruitment planning   |
|   |                    |                                     | Know about Purchasing Procedures  |
|   |                    |                                     | understanding inventory functions   |
|   |                    |                                     | Know about ISO and AGMARK   |
|   |                    |                                     | Understanding about information system  |
|   |                    |                                     | Know the MIS concepts   |

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| 7  | 18BBA303 | MANAGEMENT INFORMATION SYSTEM   | Know about transaction of documents  |
|    |          |                                 | Understanding the Data base design and techniques                          |
|    |          |                                 | Know about different Networking systems                                    |
| 8  | 15BBA304 | COST ACCOUNTING                 | Understand about cost accounting   |
|    |          |                                 | Know about material control and FIFO ,LIFO                                 |
|    |          |                                 | Understand to know about systems of Wage payment                           |
|    |          |                                 | Know about process of costing  |
|    |          |                                 | Understand the marginal cost   |
| 9  | 18BBAID3 | BUSINESS TAXATION               | Should have acquired knowledge about Tax                                   |
|    |          |                                 | Know about heads of income   |
|    |          |                                 | Understanding about computation of income                                  |
|    |          |                                 | Getting some knowledge about Capital gains                                 |
|    |          |                                 | Know about VAT,TNVAT   |
| 10 | 18BBAED1 | MULTIMEDIA AND ITS APPLICATIONS | The students should understand the key features of Multimedia techniques . |
|    |          |                                 | To impact of the animation development for future applications.            |
|    |          |                                 | To learn the animation graphics and working with drawing tools in flash.   |
|    |          |                                 | To Learn the animation development for future development of application.  |
|    |          |                                 |  |
| 11 | 15BBA401 | HUMAN RESOURCE MANAGEMENT       | Understand the functions of HRM  |
|    |          |                                 | Differentiate Job analysis and job descriptions                            |
|    |          |                                 | Understand about employee welfare systems                                  |
|    |          |                                 | Know about wages and salary  |
|    |          |                                 | Know about Grievances  |
| 12 | 15BBA402 | RESEARCH METHODS FOR MANAGEMENT | Understand to know Research  |
|    |          |                                 | Know the Hypothesis and types  |
|    |          |                                 | Clear about sampling design  |
|    |          |                                 | Know about Test of significance  |
|    |          |                                 | Understand to write report   |
| 13 | 15BBA403 | MANAGEMENT ACCOUNTING           | Understand about finance functions   |
|    |          |                                 | Know about Capital, Equity, Debt and Preference Shares                     |
|    |          |                                 | Understanding Capital budgeting  |
|    |          |                                 | Know about the capital structure   |
|    |          |                                 | Understand about Working capital Management                                |
| 14 | 15BBA404 | CONSUMER BEHAVIOUR              | Understand to know the consumer needs                                      |
|    |          |                                 | Getting to understand Consumer perception and Learning                     |
|    |          |                                 | Differentiate the groups   |
|    |          |                                 | acquired to know about family and its roles in decision making             |
|    |          |                                 | Aware about consumer protection act 1986                                   |
| 15 | 15BBAID4 | LEGAL ASPECTS OF BUSINESS       | To know about Law of contract  |
|    |          |                                 | Understand about law of agencies   |
|    |          |                                 | Know about sale of goods act   |
|    |          |                                 | Understand to know about companies act                                     |
|    |          |                                 | Understand about Meeting and winding up of companies                       |
|    |          |                                 | Understand to know basic of office   |
|    |          |                                 | Know about office environment and communication                            |

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| 16 | 15BBAA04 | MODERN OFFICE MANAGEMENT                 | Get some ideas about office correspondence and record management |
|    |          |  | Know about office systems and procedures                         |
|    |          |  | Understand to know about office personnel relations              |
| 17 | 15BBA501 | FINANCIAL MANAGEMENT                     | Understand about finance functions                               |
|    |          |  | Know about Capital, Equity, Debt and Preference Shares           |
|    |          |  | Understanding Capital budgeting                                  |
|    |          |  | Know about the capital structure                                 |
|    |          |  | Understand about Working capital Management                      |
| 18 | 17BBA502 | BRAND AND BUSINESS                       | Understand to know about new product development                 |
|    |          |  | Know the concepts of brands                                      |
|    |          |  | Understand the brand positioning                                 |
|    |          |  | Get some ideas about relevance model                             |
|    |          |  | Know about packing and labeling                                  |
| 19 | 15BBA503 | ENTREPRENEURSHIP AND PROJECT MANAGEMENT  | Getting knowledge about entrepreneur                             |
|    |          |  | Know about entrepreneurial motivation                            |
|    |          |  | Understanding about Project and selection                        |
|    |          |  | Know about preparing report                                      |
|    |          |  | Know about different financial assistance                        |
| 20 | 15BBA504 | BUSINESS ETHICS AND CORPORATE GOVERNANCE | Understand about business ethics                                 |
|    |          |  | Know about ethical values  |
|    |          |  | Understand About culture and ethical leadership                  |
|    |          |  | Know about corporate governance                                  |
|    |          |  | Understand to Corporate social responsibility                    |
| 21 | 15BBAE01 | ADVERTISING AND SALES PROMOTION          | Understand about advertising and its functions                   |
|    |          |  | Know about creativity of advertisement                           |
|    |          |  | Know different advertising media                                 |
|    |          |  | Clearly know about promotion mix                                 |
|    |          |  | Understand the sales promotion                                   |
| 22 | 15BBA601 | INTERNATIONAL BUSINESS MANAGEMENT        | Know about world economy   |
|    |          |  | Understand about business environment                            |
|    |          |  | Understand international trade theories                          |
|    |          |  | Know about strategies of international business                  |
|    |          |  | Know about WTO   |
| 23 | 15BBA602 | BUSINESS STRATEGY                        | Know about concepts of strategy                                  |
|    |          |  | Understand the environmental analysis                            |
|    |          |  | Know about strategic decision framework                          |
|    |          |  | Understand about role of top management                          |
|    |          |  | Know about Core competencies                                     |
| 24 | 15BBA603 | INSURANCE FOR BUSINESS PROCESS           | Understand to know about risk and its classifications            |
|    |          |  | Know about life insurance and its principles                     |
|    |          |  | Understand about general insurance and fire insurance            |
|    |          |  | Get some knowledge about marine insurance                        |
|    |          |  | Know about Miscellaneous insurance and motor insurance           |
|    |          |  | Know about E-Commerce  |
|    |          |  | Understand about Internet consumer and market research           |

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| 25 | 15BBA604 | ECOMMERCE                | Know about Advertisement in E-Commerce<br>Get some clear knowledge about B2B in E-Commerce<br>Know about Policies and Seller Protection in EC   |
| 26 | 15BBAE04 | EVENT MARKETING          | Understand about Event and event management<br>Know about 5C's in Event marketing<br>Know about event planning and team management<br>Understand about Marketing of events<br>Know about the future of event marketing    |
| 27 | 15BBAE09 | TRAINING AND DEVELOPMENT | Understand to know concept of training<br>Know the different training methods<br>Understand the learning concepts<br>Understand the different evaluation in training methods<br>Understand to know about the environments |

#### BBA(BANKING)

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |                          | Develop the knowledge, skill and attitude to creatively and systematically to solve the management problems and work effectively in modern business organizations<br>Demonstrate the critical thinking mindset and the ability to identify and formulate research and to provide valid conclusions and contextual approaches across a variety of subject matter.<br>Analytical, logical and managerial skills with the technical aspects to resolve real world issues.<br>The main objective of the programme is to understand the student about the business and people in the society.<br>The programme intends to train the students to become competent enough for entry level management professionals. |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |                          | Graduates with flair of self-employment will be able to initiate and build upon entrepreneurial ventures or demonstrate Intrapreneurship for their employer organizations<br>To acquire required knowledge for practical banking operations.<br>To prepare professional quality business documents and deliver a professional quality business presentation and to develop a global perspective towards various legal issues.  |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>       | <b>Course Outcome</b>  |
| 1  | 18BAB101           | PRINCIPLES OF MANAGEMENT | Understanding the concepts of management and administration<br>know about various functions of management<br>Acquired knowledge in MBO<br>Getting knowledge about Management process<br>Understand about Budgetary control and auditing in an organisation   |
| 2  | 18BAB102           | FINANCIAL ACCOUNTING     | Acquired some knowledge about accounting<br>Know about subsidiary books<br>Helps to Prepare final accounts<br>Getting knowledge about branches of accounting<br>Preparation of Accounts from incomplete records  |
| 3  | 18BAB201           | ORGANIZATIONAL BEHAVIOUR | Clearly know about organisation and its functions<br>Helps to know Perception and motivation concepts<br>Know about different leadership styles<br>Getting knowledge about group and managing conflicts<br>Get some ideas about organisation climate and culture   |
| 4  | 18BAB202           | BUSINESS ECONOMICS       | Helps to understand business firm<br>Understand demand elasticity<br>Know about production functions<br>Know about cost and revenue<br>Understand different Pricing and structure  |

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| 5  | 15BAB301 | MARKETING MANAGEMENT            | Understanding Marketing  |
|    |          |                                 | Know about buyer behaviour   |
|    |          |                                 | Get to know Products and its types   |
|    |          |                                 | Understand Pricing Policies  |
|    |          |                                 | Know about different advertising medias                                    |
| 6  | 18BAB302 | BANKING LAW AND PRACTICE        | Know about banking   |
|    |          |                                 | Understand the functions of RBI  |
|    |          |                                 | Aware about the relationships in banking and customer                      |
|    |          |                                 | Know about collection and payment of cheque                                |
|    |          |                                 | Aware about internet banking   |
| 7  | 18BAB303 | MANAGEMENT INFORMATION SYSTEM   | Understanding about information system                                     |
|    |          |                                 | Know the MIS concepts  |
|    |          |                                 | Know about transaction of documents  |
|    |          |                                 | Understanding the Data base design and techniques                          |
|    |          |                                 | Know about different Networking systems                                    |
| 8  | 15BAB304 | COST ACCOUNTING                 | Understand about cost accounting   |
|    |          |                                 | Know about material control and FIFO ,LIFO                                 |
|    |          |                                 | Understand to know about systems of Wage payment                           |
|    |          |                                 | Know about process of costing  |
|    |          |                                 | Understand the marginal cost   |
| 9  | 18BABID3 | BUSINESS TAXATION               | Should have acquired knowledge about Tax                                   |
|    |          |                                 | Know about heads of income   |
|    |          |                                 | Understanding about computation of income                                  |
|    |          |                                 | Getting some knowledge about Capital gains                                 |
|    |          |                                 | Know about VAT,TNVAT   |
| 10 | 18BABED1 | MULTIMEDIA AND ITS APPLICATIONS | The students should understand the key features of Multimedia techniques . |
|    |          |                                 | To impact of the animation development for future applications.            |
|    |          |                                 | To learn the animation graphics and working with drawing tools in flash.   |
|    |          |                                 | To Learn the animation development for future development of application.  |
|    |          |                                 |  |
| 11 | 15BAB401 | HUMAN RESOURCE MANAGEMENT       | Understand the functions of HRM  |
|    |          |                                 | Differentiate Job analysis and job descriptions                            |
|    |          |                                 | Understand about employee welfare systems                                  |
|    |          |                                 | Know about wages and salary  |
|    |          |                                 | Know about Grievances  |
| 12 | 15BAB402 | RESEARCH METHODS FOR MANAGEMENT | Understand to know Research  |
|    |          |                                 | Know the Hypothesis and types  |
|    |          |                                 | Clear about sampling design  |
|    |          |                                 | Know about Test of significance  |
|    |          |                                 | Understand to write report   |
| 13 | 15BAB403 | MANAGEMENT ACCOUNTING           | Understand about finance functions   |
|    |          |                                 | Know about Capital, Equity, Debt and Preference Shares                     |
|    |          |                                 | Understanding Capital budgeting  |
|    |          |                                 | Know about the capital structure   |
|    |          |                                 | Understand about Working capital Management                                |

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| 15 | 15BABID4 | LEGAL ASPECTS OF BUSINESS                | To know about Law of contract                                    |
|    |          |  | Understand about law of agencies                                 |
|    |          |  | Know about sale of goods act                                     |
|    |          |  | Understand to know about companies act                           |
|    |          |  | Understand about Meeting and winding up of companies             |
| 16 | 15BABA04 | MODERN OFFICE MANAGEMENT                 | Understand to know basic of office                               |
|    |          |  | Know about office environment and communication                  |
|    |          |  | Get some ideas about office correspondence and record management |
|    |          |  | Know about office systems and procedures                         |
| 17 | 15BAB501 | FINANCIAL MANAGEMENT                     | Understand to know about office personnel relations              |
|    |          |  | Understand about finance functions                               |
|    |          |  | Know about Capital, Equity, Debt and Preference Shares           |
|    |          |  | Understanding Capital budgeting                                  |
| 18 | 17BAB502 | ENTRENEURSHIP AND PROJECT MANAGEMENT     | Know about the capital structure                                 |
|    |          |  | Understand about Working capital Management                      |
|    |          |  | Getting knowledge about entrepreneur                             |
|    |          |  | Know about entrepreneurial motivation                            |
| 19 | 15BAB503 | MONEY AND BANKING                        | Understanding about Project and selection                        |
|    |          |  | Know about preparing report                                      |
|    |          |  | Know about different financial assistance                        |
|    |          |  | Understand the functions of money                                |
| 20 | 15BAB504 | BUSINESS ETHICS AND CORPORATE GOVERNANCE | Know the different kinds of banks in india                       |
|    |          |  | Understand the economic development of the country               |
|    |          |  | Understand the organised and in unorganised money market         |
|    |          |  | Know about inflation and deflation                               |
| 21 | 15BABE01 | ADVERTISING AND SALES PROMOTION          | Understand about business ethics                                 |
|    |          |  | Know about ethical values  |
|    |          |  | Understand About culture and ethical leadership                  |
|    |          |  | Know about corporate governance                                  |
| 22 | 15BAB601 | FOREIGN EXCHANGE MANAGEMENT              | Understand to Corporate social responsibility                    |
|    |          |  | Understand about advertising and its functions                   |
|    |          |  | Know about creativity of advertisement                           |
|    |          |  | Know different advertising media                                 |
| 23 | 15BAB602 | BUSINESS STRATEGY                        | Clearly know about promotion mix                                 |
|    |          |  | Understand the sales promotion                                   |
|    |          |  | Understand the nature of foreign exchange management             |
|    |          |  | Know about international financial markets                       |
|    |          |  | Aware about international payments                               |
|    |          |  | Getting knowledge about exchange rate determination              |
|    |          |  | Aware about foreign exchange risks                               |
|    |          |  | Know about concepts of strategy                                  |
|    |          |  | Understand the environmental analysis                            |
|    |          |  | Know about strategic decision framework                          |
|    |          |  | Understand about role of top management                          |
|    |          |  | Know about Core competencies                                     |

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|----|----------|--------------------------|--|
| 24 | 15BBA603 | INNOVATIVE BANKING       | Know about internet banking                              |
|    |          |                          | Know about mobile banking                                |
|    |          |                          | Understand to differentiate wholesale and retail banking |
|    |          |                          | Know about the universal and narrow banking              |
|    |          |                          | Know about Offshore and multi national banking           |
| 25 | 15BAB604 | ECOMMERCE                | Know about E-Commerce                                    |
|    |          |                          | Understand about Internet consumer and market research   |
|    |          |                          | Know about Advertisement in E-Commerce                   |
|    |          |                          | Get some clear knowledge about B2B in E-Commerce         |
|    |          |                          | Know about Policies and Seller Protection in EC          |
| 26 | 15BBAE04 | EVENT MARKETING          | Understand about Event and event management              |
|    |          |                          | Know about 5C's in Event marketing                       |
|    |          |                          | Know about event planning and team management            |
|    |          |                          | Understand about Marketing of events                     |
|    |          |                          | Know about the future of event marketing                 |
| 27 | 15BBAE09 | TRAINING AND DEVELOPMENT | Understand to know concept of training                   |
|    |          |                          | Know the different training methods                      |
|    |          |                          | Understand the learning concepts                         |
|    |          |                          | Understand the different evaluation in training methods  |
|    |          |                          | Understand to know about the environments                |

**BBA (CA)**

|  |                    |  |   |
|--|--------------------|--|---|
| <b>PROGRAMME OUTCOME (PO):</b>           |                    |  | Develop the knowledge, skill and attitude to creatively and systematically to solve the management problems and work effectively in modern business organizations                           |
|  |                    |  | Demonstrate the critical thinking mindset and the ability to identify and formulate research and to provide valid conclusions and contextual approaches across a variety of subject matter. |
|  |                    |  | Analytical, logical and managerial skills with the technical aspects to resolve real world issues.  |
|  |                    |  | The main objective of the programme is to understand the student about the business and people in the society.  |
|  |                    |  | The programme intends to train the students to become competent enough for entry level management professionals.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |  | To impart conceptual grounding in computer usage as well as its practical business application will be provided.  |
|  |                    |  | Has an ability to apply knowledge of computing and business application appropriate to the discipline.  |
|  |                    |  | Enable students to take up higher education to become business professionals, researchers, consultants and teachers with core competencies and skills.                                      |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                     | <b>Course Outcome</b>   |
| 1  | 18BAC101           | PRINCIPLES OF MANAGEMENT               | Understanding the concepts of management and administration   |
|  |                    |  | know about various functions of management  |
|  |                    |  | Acquired knowledge in MBO   |
|  |                    |  | Getting knowledge about Management process  |
|  |                    |  | Understand about Budgetary control and auditing in an organisation  |
| 2  | 18BAC102           | INTRODUCTION TO INFORMATION TECHNOLOGY | To understand about processor to create .edit and format documents.   |
|  |                    |  | On successful completion of this introduction of computers students will have the knowledge about computer system   |
|  |                    |  | To develop creativity among students in designing a presentation of powerpoint which helps them to create a basic presentation.   |
|  |                    |  | To develop technical and communication skills of students by using internet and it is common userfriendly.  |
| 3  | 18BAC201           | FINANCIAL ACCOUNTING                   | Acquired some knowledge about accounting  |
|  |                    |  | Know about subsidiary books   |
|  |                    |  | Helps to Prepare final accounts   |

|    |          |                                     |  |
|----|----------|-------------------------------------|--|
|    |          |                                     | Getting knowledge about branches of accounting   |
|    |          |                                     | Preparation of Accounts from incomplete records  |
| 4  | 15BAC301 | MARKETING MANAGEMENT                | Understanding Marketing  |
|    |          |                                     | Know about buyer behaviour   |
|    |          |                                     | Get to know Products and its types   |
|    |          |                                     | Understand Pricing Policies  |
|    |          |                                     | Know about different advertising medias  |
| 5  | 15BAC302 | PRODUCTION AND OPERATION MANAGEMENT | should have acquired knowledge about production management   |
|    |          |                                     | Understand Recruitment planning  |
|    |          |                                     | Know about Purchasing Procedures   |
|    |          |                                     | understanding inventory functions  |
|    |          |                                     | Know about ISO and AGMARK  |
| 6  | 15BAC303 | SYSTEM ANALYSIS AND DESIGN          | Students should have understood the concept of system analysis and design  |
|    |          |                                     | Knowledge of System development life cycle.  |
|    |          |                                     | To understand of how to analyse the system design and techniques.  |
|    |          |                                     | Knowing the knowledge of Input and Output design concept   |
| 7  | 18BACID3 | BUSINESS TAXATION                   | Should have acquired knowledge about Tax   |
|    |          |                                     | Know about heads of income   |
|    |          |                                     | Understanding about computation of income  |
|    |          |                                     | Getting some knowledge about Capital gains   |
|    |          |                                     | Know about VAT,TNVAT   |
| 8  | 18BACA01 | RETAIL MANAGEMENT                   | Acquired to know about retailing and its functions   |
|    |          |                                     | Know about visual merchandising  |
|    |          |                                     | Understand about retail merchandising  |
|    |          |                                     | Know about Price determination and policies  |
|    |          |                                     | Understand the Retail MIS  |
| 9  | 18BACED1 | MULTIMEDIA AND ITS APPLICATIONS     | The students should understand the key features of Multimedia techniques .   |
|    |          |                                     | To impact of the animation development for future applications.  |
|    |          |                                     | To learn the animation graphics and working with drawing tools in flash.   |
|    |          |                                     | To Learn the animation development for future development of application.  |
| 10 | 15BAC401 | HUMAN RESOURCE MANAGEMENT           | Understand the functions of HRM  |
|    |          |                                     | Differentiate Job analysis and job descriptions  |
|    |          |                                     | Understand about employee welfare systems  |
|    |          |                                     | Know about wages and salary  |
| 11 | 15BAC402 | RESEARCH METHODS FOR MANAGEMENT     | Know about Grievances  |
|    |          |                                     | Understand to know Research  |
|    |          |                                     | Know the Hypothesis and types  |
|    |          |                                     | Clear about sampling design  |
|    |          |                                     | Know about Test of significance  |
| 12 | 18BAC403 | RDBMS AND ORACLE                    | Understand the concept of fundamentals & basic concepts in relational Data Base Management Systems.  |
|    |          |                                     | Develop a clear understanding of the conceptual frameworks and definitions of specific terms that are integral to the Relational Database Management Systems |
|    |          |                                     | Understand the basic concepts of Concurrency Control & database security   |
|    |          |                                     | Understand the basic concept how storage techniques are used to backup data and maintain data access   |
|    |          |                                     | To develop structured query language (SQL) queries to create, read, update, and delete relational database data  |
|    |          |                                     | Helps to understand business firm  |



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| 13 | 15BACID4 | BUSINESS ECONOMICS              | Understand demand elasticity   |
|    |          |                                 | Know about production functions  |
|    |          |                                 | Know about cost and revenue  |
|    |          |                                 | Understand different Pricing and structure   |
| 16 | 15BACA04 | MODERN OFFICE MANAGEMENT        | Understand to know basic of office   |
|    |          |                                 | Know about office environment and communication  |
|    |          |                                 | Get some ideas about office correspondence and record management   |
|    |          |                                 | Know about office systems and procedures   |
|    |          |                                 | Understand to know about office personnel relations  |
| 17 | 15BAC501 | FINANCIAL MANAGEMENT            | Understand about finance functions   |
|    |          |                                 | Know about Capital, Equity, Debt and Preference Shares   |
|    |          |                                 | Understanding Capital budgeting  |
|    |          |                                 | Know about the capital structure   |
|    |          |                                 | Understand about Working capital Management  |
| 18 | 15BAC502 | CONSUMER BEHAVIOUR              | Understand to know the consumer needs  |
|    |          |                                 | Getting to understand Consumer perception and Learning   |
|    |          |                                 | Differentiate the groups   |
|    |          |                                 | acquired to know about family and its roles in decision making   |
|    |          |                                 | Aware about consumer protection act 1986   |
| 19 | 15BAC503 | VISUAL PROGRAMMING              | Students should have implicit visual programming environment.  |
|    |          |                                 | The students understand the knowledge of basic toolbars and database tools.                                |
|    |          |                                 | To introduce and apply the concepts program development using a contemporary programming language          |
|    |          |                                 | To develop creativity among students in designing forms by tool box.                                       |
|    |          |                                 | Students are create procedures that are accessible from multiple form modules.                             |
| 20 | 15BACE01 | ADVERTISING AND SALES PROMOTION | Understand about advertising and its functions   |
|    |          |                                 | Know about creativity of advertisement   |
|    |          |                                 | Know different advertising media   |
|    |          |                                 | Clearly know about promotion mix   |
|    |          |                                 | Understand the sales promotion   |
| 22 | 15BAC601 | COST AND MANAGEMENT ACCOUNTING  | Understand about cost accounting   |
|    |          |                                 | Know about material control and FIFO ,LIFO   |
|    |          |                                 | Understand to know about systems of Wage payment   |
|    |          |                                 | Know about process of costing  |
|    |          |                                 | Understand the marginal cost   |
| 23 | 15BAC602 | BUSINESS STRATEGY               | Know about concepts of strategy  |
|    |          |                                 | Understand the environmental analysis  |
|    |          |                                 | Know about strategic decision framework  |
|    |          |                                 | Understand about role of top management  |
|    |          |                                 | Know about Core competencies   |
| 24 | 15BAC603 | INTERNET AND WEB DESIGN         | To update the knowledge of internet and webapplication concepts.   |
|    |          |                                 | To understand the importance of the web and creation of web pages.   |
|    |          |                                 | Students should implicit the knowledge of text wrapping and cell spacing and cell padding.                 |
|    |          |                                 | To develop technical and communication skills of students by using internet and it is common userfriendly. |
|    |          |                                 |  |
|    |          |                                 | Understand about Event and event management  |

|    |          |                 |   |
|----|----------|-----------------|---|
| 25 | 15BACE04 | EVENT MARKETING | Know about 5C s in Event marketing            |
|    |          |                 | Know about event planning and team management |
|    |          |                 | Understand about Marketing of events          |
|    |          |                 | Know about the future of event marketing      |

**BACHELOR OF COMMERCE (B.Com)**

|  |                    |   |   |
|--|--------------------|---|---|
| <b>PROGRAMME OUTCOME (PO):</b>         |                    |   | The graduates will be able to   |
|  |                    |   | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and 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.   |
|  |                    |   | Prepare for post graduate studies and to achieve success in their professional careers  |
|  |                    |   | Students shall experience problem solving skills related to Accounting, Costing & Analyse Financial Statements of Companies.  |
| <b>PROGRAM SPECIFIC OUTCOMES (PSO)</b> |                    |   | Reveal knowledge of forms of organization and key areas of marketing & Apply laws pertaining to Business  |
|  |                    |   | Demonstrate knowledge of key concepts in Entrepreneurship, Direct & Indirect taxes.   |
|  |                    |   |   |
| <b>S.NO</b>                            | <b>COURSE CODE</b> | <b>COURSE NAME</b>                          | <b>COURSE OUTCOME</b>   |
| 1                                      | 17BCM101           | Financial Accounting -I                     | To Enrich the students in the basic concepts of Accounting<br>Familiarize the students with the steps involved in locating errors and make them understand the relationship between Profit & Loss Account and Balance Sheet.<br>Grasp the accounting treatments relating to issue, acceptance, discounting, maturity and endorsement of bills and notes in the books of drawer and drawee<br>Interpret and explain the performance of branches. |
| 2                                      | 18BCM102           | Essentials of Commerce                      | To understand Technologies supporting e-commerce, including Web services and electronic payment systems.<br>To understand Scenarios for B2B in commerce<br>Policy and regulatory issues in commerce.  |
| 3                                      | 16BCMID1           | Business Economics and Economic Development | Understand and apply supply and demand analysis to relevant economic issues;<br>Apply marginal analysis to the “firm” under different market conditions;<br>Understand the causes and consequences of different market structures;<br>Apply economic models to examine current economic issues and evaluate policy options for addressing these issues;   |
| 4                                      | 17BCM201           | Financial Accounting - II                   | Define & examine the accounting principles, underlying financial statements and their implementation in partnership firms.<br>Interpret the financial result after admission, retirement and death of a partner and explain different accounting policies.  |
| 5                                      | 18BCM202           | Principles of Banking and Insurance Law     | Understand and explain the conceptual framework of banking<br>Classify and Demonstrate the types of deposit, cheques, loans and advances<br>Illustrate the various electronic payment methods   |
| 6                                      | 18BCM301           | Corporate Accounting                        | Acquire the conceptual knowledge of the fundamentals of corporate accounting<br>Understand the concepts and standards underlying the accounting procedures used to measure business performance<br>Have a comprehensive knowledge about the latest provisions of the Companies Act.   |
| 7                                      | 17BCM302           | E-Commerce                                  | Discuss modern computing infrastructures from the perspective of the internet and organisations<br>Discuss and explain theoretical and practical issues of conducting business over the internet and the Web<br>Reflect on general principles revealed through practical exploration of specific tools, techniques and methods in e-business.   |
| 8                                      | 15BCM303           | Commercial Law                              | To state the law relating to Indian Contract Act and define the concept of contract<br>To understand the different elements of contract, performance of contract and different modes of discharge of contract<br>To explain the concept of special contracts  |
| 9                                      | 17BCM304           | Principles of Marketing                     | Define the core concepts of marketing and discuss the role of marketing in business and society.<br>Explain the modern marketing techniques and discuss how it is used to pursue new marketing opportunities<br>Define grading and Illustrate the opportunities for graded agricultural and commercial products   |

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|    |          |                                      | Identify the marketing mix elements and describe the components of market mix.  |
|    |          |                                      | Explain and illustrate the social, cultural and economic trends and transformation related to digitalized marketing environment.                      |
| 10 | 17BCMA02 | Cyber Law                            | Describe laws governing cyberspace and analyze the role of Internet Governance in framing policies for Internet security                              |
|    |          |                                      | Discuss different types of cybercrimes and analyze legal frameworks of different countries to deal with these cybercrimes                             |
|    |          |                                      | Explain the importance of jurisdictional boundaries and identify the measures to overcome cross jurisdictional cyber crimes                           |
| 11 | 15BCM401 | Higher Corporate Accounting          | Understand the corporate practice in valuing shares and goodwill.   |
|    |          |                                      | Acquaint with the legal formats and special items and adjustments pertaining to Banking companies and Insurance companies.                            |
|    |          |                                      | Develop the skills in preparation of consolidated Balance Sheet of Holding company and Subsidiary company   |
|    |          |                                      | To learn the latest provisions relating to Government accounting and Human Resources accounting   |
| 12 | 17BCM402 | Company Law and Secretarial Practice | Understand the formation and kinds of companies.  |
|    |          |                                      | Acquire knowledge on basic documents in a company and various methods of raising of capital.  |
|    |          |                                      | Examine the provisions of Companies Act relating to meetings, resolutions and Company Management  |
| 13 | 16BCM403 | Corporate Communication              | To provide an overview of Prerequisites to Business Communication.  |
|    |          |                                      | To put in use the basic mechanics of Grammar.   |
|    |          |                                      | To provide an outline to effective Organizational Communication.  |
|    |          |                                      | To underline the nuances of Business communication.   |
|    |          |                                      | To impart the correct practices of the strategies of Effective Business writing.  |
| 14 | 17BCMA04 | Indirect Taxation                    | Understand the basic principles underlying the Indirect Taxation Statutes   |
|    |          |                                      | Identify and analyze the procedural aspects under different applicable statutes related to indirect taxation  |
|    |          |                                      | Examine the concepts used in indirect tax, assessment, powers, duties, offences, penalties etc.   |
| 15 | 15BCM501 | Cost Accounting                      | Explain the basic concept of cost and how costs are presented in financial statements.  |
|    |          |                                      | Demonstrate how materials, labor and overhead costs are added to a product at each stage of the production cycle.                                     |
|    |          |                                      | Analyze the basic cost flow model and be able to assign costs in a job cost system.   |
| 16 | 15BCM502 | Management Principles and Practice   | Demonstrate critical thinking when presented with managerial problems and express their views and opinions on managerial issues in an articulate way. |
|    |          |                                      | Understand the major internal features of a business system and the environment in which it operates.   |
|    |          |                                      | Identify and explain the importance of the management process and identify some of the key skills required for the contemporary management practice.  |
| 17 | 15BCM503 | Income Tax Law and Practice          | Examine the basic concepts of schedule of rates of tax, tax liability, penalties and prosecution  |
|    |          |                                      | Explain the total taxable income of an assessee   |
|    |          |                                      | Apply and practice the computation of total income  |
| 18 | 15BCM504 | Principles of Auditing               | Understand the basic auditing principles, concepts, planning an audit and due diligence.  |
|    |          |                                      | Illustrate the steps required to perform Internal control and Internal check, Vouching and Verification and Valuation of Assets and Liabilities.      |
|    |          |                                      | Gain expert knowledge on current auditing practices and procedures and apply them in auditing engagements as well as detection of frauds              |
| 19 | 15BCM505 | Entrepreneurial Development          | Understand the concept, origin and growth of entrepreneurship   |
|    |          |                                      | Examine the various governmental and non-governmental support offered to the entrepreneurs  |
|    |          |                                      | Understand the process of starting a new venture  |
|    |          |                                      | Prepare a business plan   |
| 20 | 15BCME01 | Human Resource Management            | Familiarize the basic concepts of human resource management, framework and its role to play in effective business administration                      |
|    |          |                                      | Interpret the elements relate to various aspects of HRM, such as recruitment, placement, evaluation, compensation and development                     |
|    |          |                                      | Understanding the goals of HRM and organizational outcomes, and apply this understanding in practical situations                                      |
| 21 | 15BCM601 | Management Accounting                | Find and Apply tools and techniques used to plan, control and decision making   |
|    |          |                                      | Prepare budgets and demonstrate budget control techniques   |
|    |          |                                      | Illustrate and Build the knowledge of break-even analysis and profit maximization   |
| 22 | 15BCM602 | Business Finance                     | To understand and identify the concepts of Business Finance   |
|    |          |                                      | Understand Capital Structure, Cost of Capital for strategic Financial Decision Making   |
|    |          |                                      | Apply and practice the Theories for financial planning  |

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| 23 | 15BCM603  | Marketing Research                          | Understand the process of marketing research and its different processes identify sources of information                           |
|    |           |   | Understand different research methods  |
|    |           |   | Apply selected research methods  |
|    |           |   | Analyse and interpret both qualitative and quantitative data   |
| 24 | 17BCME05  | Business Environment                        | Discuss the supply and demand theory and its impact on insurance.  |
|    |           |   | Explain the effects of government policy on the economic environment and insurance industry.                                       |
|    |           |   | Outline how an entity operates in a business environment.  |
|    |           |   | Describe how financial information is utilized in business.  |
|    |           |   | Explain the legal framework that regulates the insurance industry.   |
| 25 | 18BCME08  | Indian Capital Market                       | Analyse factors affecting the formulation of accounts receivable and accounts payable policies                                     |
|    |           |   | Explain the objectives of inventory inventory management and application of simple inventory control techniques                    |
|    |           |   | To prepare students with a good understanding of the theoretical foundation of capital market                                      |
| 26 | 15BCME07  | International Financial Reporting Standards | To enable the Students to understand the need International Financial Reporting Standards  |
|    |           |   | To Enable the students to understand the method of presentation of Financial Statements in accordance with International standards |
| 27 | 15BCM E09 | Brand Management                            | To help Students understand the concepts of Brand Management   |
|    |           |   | To Familiarise the practices of Brand Management   |

**BCOM(Corporate Secretaryship)**

| <b>Programme Outcome (PO):</b>           |             |                                   | The graduates will be able to   |
|--|-------------|-----------------------------------|---|
|  |             |                                   | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and 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.   |
|  |             |                                   | Prepare for post graduate studies and to achieve success in their professional careers  |
| <b>Programme Specific Outcome (PSO):</b> |             |                                   | Serving as bases for Professional programmes such as ACS, ICWA and CMA.   |
|  |             |                                   | Create the students well versed in few areas of interest such as Accounting, Labor Legislation, Company Law and Taxation.   |
|  |             |                                   | Build in student transcribing skills needed in positions such as Executive Secretary  |
| S.No                                     | Course Code | Course Name                       | Course Outcome  |
| 1  | 15BCS101    | Core 1 Fundamentals of Accounting | Develop and understand the nature and purpose of financial statements in relationship to decision making  |
|  |             |                                   | Develop the ability to use the fundamental accounting equation to analyze the effect of business transactions on an organization's accounting records and financial statements. |
|  |             |                                   | Develop the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems                        |
|  |             |                                   | Develop the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences                         |
|  |             |                                   | Develop the ability to use accounting information to solve a variety of business problems   |
| 2  | 15BCS102    | Core 2 Management Concepts        | Understand the concepts related to Business.  |
|  |             |                                   | Demonstrate the roles, skills and functions of management.  |
|  |             |                                   | Analyze effective application of PPM knowledge to diagnose and solve organizational problems and develop optimal managerial decisions   |
|  |             |                                   | Understand the complexities associated with management of human resources in the organizations  |
|  |             |                                   | Integrate the learning in handling the complexities.  |
| 3  | 15BCSID1    | IDC 1 Managerial Economics        | Understand the roles of managers in firms   |
|  |             |                                   | Understand the internal and external decisions to be made by managers   |
|  |             |                                   | Analyze the demand and supply conditions and assess the position of a company   |
|  |             |                                   | Make optimal business decisions by integrating the concepts of economics, mathematics and statistics.   |
|  |             |                                   | Analyze real-world business problems with a systematic theoretical framework.   |

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| 4  | 15BCS201    | Core 3 Financial Accounting - I                | Develop and understand the nature and purpose of financial statements in relationship to decision making   |
|    |             |  | Are able to understand the Accounting Standards.   |
|    |             |  | Develop the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems |
|    |             |  | Develop the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences  |
|    |             |  | Able for the preparation of financial statements   |
| 5  | 15BCS202    | Core 4 Insurance for Business Process Service  | Provide an overview of the working of the domestic insurance sector  |
|    |             |  | To enable students to acquire knowledge and skill about the working of the insurance system  |
|    |             |  | Create the awareness of IRDA Act   |
|    |             |  | Understand the Calculation and valuation of premiums in different types of insurance.  |
|    |             |  | To get an overview on non life General Insurance.  |
| 6  | 15BCSID2    | IDC 2 – Fundamentals of Information Technology | Understand basic concepts and terminology of information technology  |
|    |             |  | Have a basic understanding of personal computers and their operations.   |
|    |             |  | Be able to identify issues related to information security   |
|    |             |  | An ability to analyze the local and global impact of computing on individuals, organizations, and society  |
|    |             |  | An ability to assist in the creation of an effective project plan  |
| 7  | 15BCS301    | Core 4 Financial Accounting-II                 | Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.                         |
|    |             |  | Prepare financial accounts for Fire Insurance Claims   |
|    |             |  | Prepare financial accounts for Insolvency Accounts   |
|    |             |  | Prepare financial accounts for partnership firms in different situations of retirement, death and insolvency of the partners.                            |
| 8  | 15BCS302    | Core 6 Elements of Business Laws               | Communicate effectively using standard business and legal terminology.   |
|    |             |  | Demonstrate recognition of the requirements of the contract agreement  |
|    |             |  | Demonstrate understanding of contract consideration and capacity   |
|    |             |  | Demonstrate recognition of the genuineness of assent in contract formation.  |
|    |             |  | Demonstrate understanding of legality and Statute of Frauds in contracts   |
| 9  | 15BCS303    | Core 7 Company Law & Secretarial Practice –I   | Understand the Kinds of Meetings , Requisites of a Valid Meeting , Preparation of Agenda and Minutes   |
|    |             |  | Identify the types of Directors , their Appointment and Qualification –  |
|    |             |  | Know the Appointment of Auditors , Qualification of Auditors and preparation of Auditors Report  |
|    |             |  | Understand Power of Board of Directors Regarding declaration of Dividend   |
|    |             |  | Analyse the different Modes of Winding Up  |
| 10 | 15BCS304    | Core 8 Principles of Marketing                 | Demonstrate understanding of marketing terminology and concepts  |
|    |             |  | Demonstrate knowledge of key business communication strategies within the marketing field  |
|    |             |  | Identify the different promotional methods   |
|    |             |  | Identify wants and environmental factors that shape marketing activities for certain target markets  |
|    |             |  | Demonstrate knowledge of the online marketing and green marketing  |
| 11 | 15BCSID3    | IDC 3 Business Mathematics                     | Ability to know the arithmetic techniques to solve the business problems   |
|    |             |  | Understand and be able to communicate the underlying business concepts   |
|    |             |  | Ability to use order of operation in the solution of arithmetic application problems   |
|    |             |  | Ability to apply proportion to rate, base, and percentage problems   |
|    |             |  | Understand to solve for unknowns   |
| 12 | 15BCSA01/02 | AOC 1 Practical Banking                        | Describe the functions of banking  |
|    |             |  | Analyse the functions of central banking   |
|    |             |  | Describe the policy reforms in banking industry  |
|    |             |  | Describe the recent developments in banking  |
|    |             |  | Understand the regulatory environment in which the companies are formed and operate •  |
|    |             |  | Have a solid foundation in accounting and reporting requirements of the Companies Act and relevant Indian Accounting Standards                           |

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| 13 | 15BCS401 | CORE X Corporate Accounting                      | <p>Have a comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner's equity</p> <p>Understand the treatment regarding issue of bonus shares and treatment of prior period profits</p> <p>Understand the accounts related to liquidation of companies</p> <p>Understand the valuation of goodwill</p>   |
| 14 | 15BCS402 | CORE XI Company Law and Secretarial Practice –II | <p>Understand the Kinds of Meetings , Requisites of a Valid Meeting , Preparation of Agenda and Minutes</p> <p>Identify the types of Directors , their Appointment and Qualification –</p> <p>Know the Appointment of Auditors , Qualification of Auditors and preparation of Auditors Report</p> <p>Understand Power of Board of Directors Regarding declaration of Dividend</p> <p>Analyse the different Modes of Winding Up</p>   |
| 15 | 15BCS403 | CORE XIII General Law                            | <p>Understand the Indian Constitution, Directive principles of state policy and provision relating to State Monopoly</p> <p>Analyse the Properties Which Cannot Be Transferred and follow the Rule against Properties</p> <p>Describe the various kinds of registration and Miscellaneous Provisions.</p> <p>Understand the various types of stamp duty and Impounding of Instruments</p> <p>Describe the Exemption from disclosure are excluded and Appellate authorities</p>   |
| 16 | 15BCS404 | Corporate Finance                                | <p>Aiming to enable the students to get the Know-how of corporate finance in its Wide aspects</p> <p>To create an interest in investment habit keeping its wide scope</p> <p>To introduce the concept of Capital Market</p> <p>To familiarize the concept of lease financing venture Capital and Mutual Fund</p> <p>In order to equip the students with details about foreign collaboration and multinational corporates</p>   |
| 17 | 15BCSA03 | Corporate Communication                          | <p>To understand and demonstrate writing and speaking processes through invention, organization, drafting, revision, editing, and presentation.</p> <p>To understand and appropriately apply modes of expression, i.e., descriptive, expositive, narrative, scientific, and self-expressive, in written, visual, and oral communication</p> <p>To participate effectively in groups with emphasis on listening, critical and reflective thinking, and responding.</p> <p>To understand and practice writing various business letters</p> |
| 18 | 15BCS501 | Core 13 Higher Corporate Accounting              | <p>Enable the students to understand about amalgamation , absorption and external reconstruction</p> <p>To make them aware about accounts of banking companies</p> <p>Keep them aware about accounts of insurance companies</p> <p>Enable the students to gain an idea of liquidation of companies</p> <p>To introduce and develop knowledge of holding companies accounts</p>   |
| 19 | 17BCS502 | Core 14 Cost Accounting                          | <p>Aimed to familiarize the concept of cost accountin</p> <p>elps to gather knowledge on preparation of cost sheet in its practical point of view</p> <p>o facilitate the idea and meaning of material control with pricing methods</p> <p>Develop the knowledge about remuneration and incentives</p> <p>To introduce the concept of overhead cost</p>  |
| 20 | 15BCS503 | Core 15 Industrial and Labour Laws               | <p>Understand the laws relating to Factories Act</p> <p>To enlighten the concept of Industrial disputes Act</p> <p>To introduce the basic concept of Workmen compensation Act</p> <p>To make them aware about Payment of Wages ACT</p> <p>Describe Trade Unions Act</p>  |
| 21 | 17BCS504 | Core 16 Corporate Governance                     | <p>To understand the concept of Corporate Governance</p> <p>Helps to gather knowledge on Company and Secretarial Audit</p> <p>To Describe the concept and amendments of Companies Act 2013</p> <p>Provide an overview on E-Governance</p> <p>To make aware about Corporate Social Responsibility</p>   |
|    |          |  | <p>Helps in preparing documents in MS Word and various alignment procedure</p> <p>Demonstrate the creation of tables and charts and various other functions in Ms.Excel</p>  |

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| 22 | 15BCSP01                           | IDC Lab I Ms Office and Tally                | <p>To Design the slides and charts in MS.Powerpoint</p> <p>Helps to create different database in Ms assess</p> <p>Develop a knowledge about creation of companies and Working with tally</p>   |
| 23 | 15BCSE01/<br>15BCSE02/<br>17BCSE03 | Taxation I                                   | <p>To introduce the basic concept of Income Tax</p> <p>In order to familiarize the different know-how and heads of income with its components</p> <p>It helps to build an idea about income from house property as a concept</p> <p>Toenlighten the concept of income from other source</p> <p>To determine the concept of assessment of individual</p>  |
| 24 | 17BCS601                           | Core 17 Accounting For Management            | <p>Acquire knowledge on Three primary purposes of management accounting namely, inventory valuation, decision support and cost control.</p> <p>Compare traditional and contemporary costing approaches for the above purposes.</p> <p>Learn how costs are analysed for different product costing contexts such as job-order, process or joint-product systems</p> <p>Develop and apply standards and budgets for planning and controlling purposes</p> <p>Apply incremental analysis to a range of business scenarios.</p>   |
| 25 | 15BCS602                           | Core 18 Corporate Law                        | <p>to encourage in students a critical appreciation of the important role of corporations and corporate law in modern society</p> <p>to give students an understanding of the principles and rules of Australian corporate law to a level that is sufficient to satisfy the requirements for admission to legal practice.</p> <p>evaluate corporate problems, identifying appropriate legal obligations, duties, rights and remedies</p> <p>demonstrate competency with the use of statutory material and its integration with common law principles.</p> <p>develop an awareness of the socio-legal and economic dimensions of modern corporate law</p> |
| 26 | 15BCS603                           | Core 19 Securities Law and Financial Markets | <p>Understand the Financial and money market</p> <p>Toenlighten the concept of Securities regulation Act 1956</p> <p>To introduce the basic concept of intermediaries and their roles</p> <p>To make them aware about SEBI and Mutual Fund</p> <p>Describe the concept of Depositories Act 1996</p>  |
| 27 | 15BCSE04/<br>17BCSE05/<br>17BCSE06 | Taxation II                                  | <p>To define various types of indirect taxes like, excise duty, customs duty(import and export), production linked tax, and Value Added Tax (VAT)</p> <p>acquire knowledge on the sources of revenues of the government</p> <p>To analyse and evaluate the effect of an indirect tax on consumers, producers and the government.</p> <p>Learn to differentiate between CST and VAT.</p> <p>Able to understand Tax liability and taxable entities. Accounting treatment (simple and trilateral transactions)</p>  |
| 28 | 17BCSE07/<br>15BCSE08/<br>15BCSE09 | Auditing Practice and Principles             | <p>Understand the audit process from the engagement planning stage through completion of the audit, as well as the rendering of an audit opinion via the various report options</p> <p>understand to describe the various levels of persuasiveness of different types of audit evidence and explain the broad principles of audit sampling techniques</p> <p>Learn to explain methods used to obtain an understanding of internal control</p> <p>Learn to Determine the appropriate audit report for a given audit situation.</p> <p>Helps to understand auditors' legal liabilities,</p>  |
| 29 | 17BCSPR1                           | Project and Viva Voce                        | <p>To acquire practical knowledge on the implementation of perceptions studied through the programme.</p> <p>practical exposure in the Project work, knowledge which will equip the students in Research work.</p> <p>acquire practical knowledge on the implementation of the programming concepts studied.</p> <p>acquire knowledge on framing of objective and defining the problem</p> <p>Practical exposure on presenting the project</p>   |

#### B Com Information Technology

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|-------------------------|---|
| PROGRAMME OUTCOME (PO): | The graduates will be able to   |
|                         | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and 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.   |
|  |                    |   | Prepare for post graduate studies and to achieve success in their professional careers  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |   | Serving as bases for Professional programmes such as ACS, ICWA and CMA.   |
|  |                    |   | Create the students well versed in few areas of interest such as Accounting, Taxation, Software Developer, Tester and Web Designer.   |
|  |                    |   | Provide Framework for the students in Information Technology with tools that will assist  |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                            | <b>Course Outcome</b>   |
| 1  | 15BCI101           | Core 1 Financial Accounting -I                | Develop and understand the nature and purpose of financial statements in relationship to decision making  |
|  |                    |   | Develop the ability to use the fundamental accounting equation to analyze the effect of business transactions on an organization's accounting records and financial statements. |
|  |                    |   | Develop the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems                        |
|  |                    |   | Develop the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences                         |
|  |                    |   | Develop the ability to use accounting information to solve a variety of business problems   |
| 2  | 15BCI102           | Core 2 Introduction to Information Technology | Understand basic concepts and terminology of information technology   |
|  |                    |   | Have a basic understanding of personal computers and their operations.  |
|  |                    |   | Be able to identify issues related to information security  |
|  |                    |   | An ability to analyze the local and global impact of computing on individuals, organizations, and society   |
|  |                    |   | An ability to assist in the creation of an effective project plan   |
| 3  | 15BCIID1           | IDC 1 Managerial Economics                    | Understand the roles of managers in firms   |
|  |                    |   | Understand the internal and external decisions to be made by managers   |
|  |                    |   | Analyze the demand and supply conditions and assess the position of a company   |
|  |                    |   | Make optimal business decisions by integrating the concepts of economics, mathematics and statistics.   |
|  |                    |   | Analyze real-world business problems with a systematic theoretical framework.   |
| 4  | 15BCI201           | Core 3 Financial Accounting - I               | Develop and understand the nature and purpose of financial statements in relationship to decision making  |
|  |                    |   | Are able to understand the Accounting Standards.  |
|  |                    |   | Develop the ability to use a basic accounting system to create (record, classify, and summarize) the data needed to solve a variety of business problems                        |
|  |                    |   | Develop the ability to use accounting concepts, principles, and frameworks to analyze and effectively communicate information to a variety of audiences                         |
|  |                    |   | Able for the preparation of financial statements  |
| 5  | 15BCIP01           | Core Lab 1 [Information Technology Lab]       | Understand the concept of Computer's Input/output devices, the concept of dynamic memory,   |
|  |                    |   | Analyze problems, errors  |
|  |                    |   | Design flow-chart, algorithm and program logic.   |
|  |                    |   | Apply programming concepts to compile and debug c programs to find solutions.   |
|  |                    |   | Understand the concept of data types, loops, functions, array, pointers, string, structures and files.  |
| 6  | 15BCIID2           | IDC 2 Principles of Marketing                 | Demonstrate understanding of marketing terminology and concepts.  |
|  |                    |   | Identify wants and environmental factors that shape marketing activities for certain target markets.  |
|  |                    |   | Demonstrate knowledge of the individual components of a marketing mix.  |
|  |                    |   | Demonstrate knowledge of key business communication strategies within the marketing field.  |
|  |                    |   | Identify the organisational processes involved in the planning, implementation and control of marketing activities  |
| 7  | 15BCI301           | Core 4 Financial Accounting-III               | Ability to define bookkeeping and accounting  |
|  |                    |   | Develop the knowledge of the general purposes and functions of accounting   |
|  |                    |   | Ability to know the differences between management and financial accounting   |
|  |                    |   | Develop the knowledge of main elements of financial accounting information – assets, liabilities, revenue and expenses  |
|  |                    |   | Ability to identify the main financial statements and their purposes.   |
| 8  | 15BCI302           | Core 5 Networking Management                  | Develop the knowledge of network management and the network management architecture   |
|  |                    |   | Ability to know the various functions of network management.  |
|  |                    |   | Gain in-depth theoretical and practical knowledge of network management, and in particular of SNMP (Simple Network Management Protocol)   |
|  |                    |   | Ability to Compare a number of variations of the network management architecture.   |



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|    |                                    |   | Ability to know how to manage multiple operating systems, systems software, network services and security   |
| 9  | 15BCI303                           | Core 6 Programming With C++ [Theory]              | Understand the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.<br>Understand dynamic memory management techniques using pointers, constructors, destructors, etc<br>Ability to know the concept of function overloading, operator overloading, virtual functions and polymorphism.<br>Ability to Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.<br>Ability to Demonstrate the use of various OOPs concepts with the help of programs. |
| 11 | 15BCIP02                           | Core Lab 2 Computer Application Practical's [C++] | provides a thorough introduction to the C programming language<br>Understand basic structure of the C-Programming ,declaration and usage of variables<br>Write C programs using operators<br>Exercise conditional and iterative statements to write C programs<br>write C programs using Pointers To Access, Arrays,Strings And Functions   |
| 12 | 15BCIID3                           | IDC 3 Business Mathematics                        | Ability to know the arithmetic techniques to solve the business problems<br>Understand and be able to communicate the underlying business concepts<br>Ability to use order of operation in the solution of arithmetic application problems<br>Ability to apply proportion to rate, base, and percentage problems<br>Understand to solve for unknowns  |
| 13 | 15BCIA01/O2                        | AOC 1 Practical Banking                           | Understanding basic institutional and practical knowledge in the field of banking<br>Ability to know the banking law besides fundamental legal knowledge<br>Ability to carry out financial analysis of banks<br>Understand to use computer software and communication technologies required in banking  |
| 14 | 15BTA001/<br>15ATA001/<br>15BCIED1 | BT/AT / EDC –Multimedia#                          | Ability to identify and use the elements and principles of design in multimedia<br>Able to identify terminology associated with the concepts and techniques<br>Able to identify the basic hardware and software requirements for the multimedia development   |
| 15 | 15BCI401                           | Core 7 Corporate Accounting                       | Able to know about strategic and legal issues in mergers and acquisitions<br>Understand accounting for inter-corporate investments<br>Able to know about takeovers through asset purchases and share purchases<br>Able to know about foreign currency transactions and translation<br>Student can understand disclosure and financial analysis issues   |
| 16 | 15BCI402                           | Core 8 Company Law & Secretarial Practice         | Summarize Procedure for incorporation of the company<br>Analyze Sources of raising capital.<br>Evaluate Role and importance of Company Secretary and key managerial personnel<br>Discuss Matters to be stated in the prospectus.<br>Able to Define Demat and Re-mat of securities   |
| 17 | 15BCI403                           | Core 9 Database Management System                 | Able To describe data models and schemas in DBMS<br>Able To understand the features of database management systems and Relational database<br>Able To use SQL- the standard language of relational databases.<br>Able To understand the functional dependencies and design of the database.<br>Able To understand the concept of Transaction and Query processing   |
| 18 | 15BCIP03                           | Core Lab 3 Database Management System Lab         | Describe the fundamental elements of relational database management systems<br>Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL.<br>Design ER-models to represent simple database application scenarios<br>Improve the database design by normalization.<br>Familiar with basic database storage structures and access techniques: file and page organizations, indexing methods including B tree, and hashing.   |
|    |                                    |   | familiarize the students with fundamental statistical tools which can help them in analyzing the business data<br>Able To Identify statistical tools needed to solve various business problems.   |

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| 19 | 15BCIUD4    | IDC 4 Business Statistics                           | <p>Able To Compute measures of location and dispersion.</p> <p>Apply discrete and continuous probability distributions to various business problems.</p> <p>Able To Develop the skill of performing the calculations needed for various methods of analysis.</p>  |
| 20 | 15BCIAO3/O4 | AOC II Principles of Auditing                       | <p>Able to Define the nature and importance of auditing</p> <p>Able to know the various audit services and related practices</p> <p>Able to Design and apply an audit plan</p> <p>Able to know the role of auditing in the modern economy as well as on various external/internal audit techniques</p>  |
| 21 | 15BCIED2    | EDC: Communicative English #                        | <p>The students are able to make accurate use of English Language in their respective fields</p> <p>The students could communicate effectively in their various business situations.</p> <p>The verbal and non-verbal skills of communication are developed.</p>  |
| 22 | 15BCIS01    | Core 10 Cost Accounting                             | <p>Understand Cost accounting Knowledge such as terminology ,Fundamental principles classifications, generalisation and methods.</p> <p>Identify cost volume profit relationships and solve CVP functions.</p> <p>Solve problems and make decisions based on results of the solution of problems.</p> <p>Analyse inventory costing and capacity</p> <p>Identify and determine cost behaviour</p>  |
| 23 | 17BCIS02    | Core 11 Taxation -I                                 | <p>To make aware of the provisions of direct tax with regard to IT act.</p> <p>To make an aware about agricultural income residential status and charge of tax.</p> <p>To understand the provisions and procedure to compute total income under five heads salary,house property,profits and gains from business and profession,Capital gains and income from other sources</p> <p>To understand the provisions and procedures for clubbing &amp; aggregation of incomes and set off &amp; carry forward losses.</p> <p>understand the various deductions to be made from gross total income us80 C to 80 U computing total income.</p> |
| 24 | 17BCIS03    | Core 12 Legal Business Concepts                     | <p>To make aware of Sources of Law ,Essentials of Valid Contract ,Intention to create Legal Relations</p> <p>To understand the Capacity to a Contract Fraud Coercion and Undue Influence</p> <p>Helps to give proper idea on Lawful Object–Agreement not declared Void</p> <p>To understand the Indian Partnership Act 1932 ,duties and liabilities of partners.</p> <p>To understand the Consumer protection Act-1986</p>  |
| 25 | 17BCIS04    | Core 13 Software Development In Visual Basic        | <p>To Understand the concept of menu bar, toolbar and project explorer</p> <p>Understand the user defined data types and Control Structures</p> <p>Helps to give proper idea on Creating and Using Standard Control</p> <p>To Understand the concept of Multiple Document Interface and Control arrays</p> <p>Helps to give proper idea on using of data controls to connect to databases</p>   |
| 26 | 17BCIP04    | Core Lab 4 Software Development In Visual Basic Lab | <p>Helps to give proper idea to compute, validate and display student marklist</p> <p>Understand the working of image controls with string functions</p> <p>Understand the working of arrays to create bank database</p> <p>Helps to give proper idea to create super market billing using data controls to connect with database</p> <p>Helps to give proper idea to highlight budget using option button and animation</p>  |
| 27 | 17BCIE01    | E-Commerce  | <p>Understand the concept of E-Commerce and Describe the opportunities and challenges offered by E-Commerce</p> <p>Understand the categories of E-Commerce and understand the different applications of E-Commerce</p> <p>To understand and identify security issues of E-Commerce</p> <p>Able to handle electronic payment technology and requirements for internet based payments</p> <p>Understand the concept of WEB Based Business Understand the M-Commerce applications</p>  |
| 28 | 17BCI601    | Core 14 Accounting for Management                   | <p>To enlighten the students thought and knowledge on management Accounting</p> <p>Helps to give proper idea on financial statement analysis in practical point of view</p> <p>Helps to give proper idea on Ratio Analysis in practical point of view</p> <p>To introduce the concept of fund flow and cash flow statement</p> <p>To provide knowledge about budget control keeping in mind the scope of the concept</p>  |

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| 29 | 15BCI602 | Core 15 HTML          | To Understand the concept of protocols used in internet                              |
|    |          |                       | Helps to give proper idea on searching keywords in internet                          |
|    |          |                       | To understand the basic Html Font Tags   |
|    |          |                       | To understand about the table tag in HTML  |
|    |          |                       | To provide knowledge about frames and forms in HTML                                  |
| 30 | 15BCIP05 | Core Lab 5 [HTML Lab] | To Understand the concept of protocols used in internet                              |
|    |          |                       | Helps to give proper idea on searching keywords in internet                          |
|    |          |                       | To understand the basic Html Font Tags   |
|    |          |                       | To understand about the table tag in HTML  |
|    |          |                       | To provide knowledge about frames and forms in HTML                                  |
| 31 | 17BCIE05 | Software Engineering  | 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 |
|    |          |                       | Helps to how to tackle the risks associated with development of software             |
| 32 | 17BCIE08 | Investment Management | 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         |
|    |          |                       | To provide knowledge about Portfolio Analysis and Management                         |

**B COM (CA)**

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |  | The graduates will be able to   |
|  |                    |  | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and 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.   |
|  |                    |  | Prepare for post graduate studies and to achieve success in their professional careers  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |  | Create the students well versed in few areas of interest such as Accounting, Taxation, Auditing, Software Developer, Software Application and Web Designer              |
|  |                    |  | Students will demonstrate that they can present the results of their observations and research in a way that is objective, technically accurate, and legally acceptable |
|  |                    |  | Students will use effective technology appropriately, such as PowerPoint, slides, posters, handouts, and transparencies in oral presentations.                          |
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| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                     | <b>Course Outcome</b>   |
| 1  | 15BCC101           | Financial Accounting –I                | Define book keeping and accounting  |
|  |                    |  | Describe 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.  |
|  |                    |  | Knowledge about finalizing the accounts of a company.   |
| 2  | 15BCCID1           | Managerial Economics                   | Identify the sources of economic value.   |
|  |                    |  | Create new market opportunities through differentiation   |
|  |                    |  | Understand the mechanisms of and competitions and their business  |
|  |                    |  | Anticipate future market trends and dynamics  |
| 3  | 15BCC102           | Computer Fundamental and C programming | 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.   |

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|    |          |  | Demonstrate the difference between iteration and recursion in team of C programming.   |
|    |          |  | Develop c programs for data structure concepts with functions  |
| 4  | 16BCC201 | Financial Accounting –II                 | Describe the concept depreciation , reserve and provisions   |
|    |          |  | Ascertainment of Profit in Single entry System   |
|    |          |  | Knowledge about Self balancing ledger accounts   |
|    |          |  | Explain the Accounting Treatment in Hire purchase and Instalment System  |
|    |          |  | Describe the concept of Branch accounts  |
| 5  | 15BCCID2 | Principles of Management                 | Evaluate approaches to addressing issues of diversity  |
|    |          |  | Determine the most effective action to take in specific situations   |
|    |          |  | Integrate management principles management practices   |
|    |          |  | Assess global situation , including opportunities and threats that will impact management of an organisation   |
|    |          |  | Specify how the managerial task of planning organizing , and controlling can be executed in a variety of circumstances.                              |
| 6  | 15BCCP01 | Computer Fundamental & C Programming lab | Solve the problems, present the ideas, write the letters and etc... using MS office package  |
|    |          |  | Design algorithms and flow charts  |
|    |          |  | Understand the fundamentals of c programming   |
|    |          |  | Choose the loop and decision making statements to solve the problem  |
|    |          |  | Use the functions to solve different problems  |
|    |          |  | Understand file operations in C programming for a given applications   |
| 7  | 15BCC301 | Financial Accounting –III                | Determine the adjustment in admission of new partner   |
|    |          |  | Explain the Accounting Treatment in retirement of partner  |
|    |          |  | Modes of Dissolution and Insolvency  |
|    |          |  | Describing about the insolvency of Individual and partnership firm   |
|    |          |  | Defining the Claims of loss of stock in Fire insurance   |
| 8  | 15BCC302 | Principles of marketing                  | To understand how organizations identify customers and their wants/needs.  |
|    |          |  | To apply key frameworks and methods, and develop analytical skills to solve marketing problems.  |
|    |          |  | To provide you with a firm foundation in marketing Context   |
|    |          |  | Another course objective is to relate the impact of marketing and its integration with your own major or field of interest.                          |
|    |          |  | To comprehend marketing decisions, based upon the combination of product, price, promotion, and distribution elements.                               |
|    |          |  | To understand marketing is carried out by an organization to meet the requirements of all environmental  |
| 9  | 15BCC303 | C++ Programming                          | 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   |
|    |          |  | Understand how to produce object-oriented software using C++   |
|    |          |  | Understand how to apply the major object-oriented concepts to implement object oriented programs in C++, encapsulation, inheritance and polymorphism |
|    |          |  | Understand advanced features of C++ specifically stream I/O, templates and operator overloading  |
| 10 | 15BCCP02 | C++ Programming Lab                      | Apply the concepts of object-oriented programming  |
|    |          |  | Manipulate objects   |
|    |          |  | Implement advanced use of arrays in C++ programming.   |
|    |          |  | Apply virtual and pure virtual function & complex programming situations   |
|    |          |  | Apply how to implement copy constructors and class member functions  |
|    |          |  | Illustrate the process of data file manipulations using C++  |
| 11 | 16BCCA01 | Company law                              | Demonstrate an understanding of the legal environment of the business  |
|    |          |  | Apply basic legal knowledge to business transactions   |
|    |          |  | Communicate effectively using standard business and legal terminology.   |

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|    |          |                               | Drafting of agenda and minutes of various meeting   |
| 12 | 15BCCED1 | Human Resource Management     | The paper includes that education remains a veritable means of human resource management                              |
|    |          |                               | Human resource management has some specific roles to play in an organization  |
|    |          |                               | The goals of human resource management in education are to develop the workers and to contribute to goal achievement. |
|    |          |                               | Knowledge about the wages and welfare measures of employees   |
| 13 | 15BCC401 | Corporate Accounting          | 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 communication choices       |
|    |          |                               | To develop the ability to research and write a Report   |
|    |          |                               | To be effectively in writing minutes and on preparing agenda  |
|    |          |                               | To develop the ability to research and write a documented paper   |
| 14 | 15BCC403 | Internet and HTML Programming | 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 web site and Implement interactive web page(s).   |
|    |          |                               | Demonstrate Rich Internet Application.  |
|    |          |                               | Describe and differentiate different Web Extensions and Web Services.   |
| 15 | 15BCC402 | Corporate Communication       | 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 communication choices       |
|    |          |                               | To develop the ability to research and write a Report   |
|    |          |                               | To be effectively in writing minutes and on preparing agenda  |
|    |          |                               | To develop the ability to research and write a documented paper   |
| 16 | 15BCCP03 | HTML Programming Lab          | To get familiar with basics of the Internet Programming.  |
|    |          |                               | To acquire knowledge and skills for creation of web site.   |
|    |          |                               | To gain ability to develop responsive web applications.   |
|    |          |                               | To explore different web extensions and web services standards.   |
|    |          |                               | Understand data link concepts designing with Form and frames.   |
| 17 | 16BCCA03 | Commercial Law                | Demonstrate and understanding of the legal environment of business  |
|    |          |                               | Define relevant legal terms in business   |
|    |          |                               | Appreciate the relevance of business law to individuals and business  |
|    |          |                               | Identify the fundamental legal principles behind contractual agreements   |
| 18 | 15BCC501 | Cost Accounting               | Explains the purpose of cost accounting   |
|    |          |                               | Defines the concept of cost, expense, loss and revenue  |
|    |          |                               | Calculate inventory cost according to the inventory valuation techniques  |
|    |          |                               | Explain cost from the view point of the relationship with cost centers  |
|    |          |                               | Calculate Labour cost using various methods.  |
| 19 | 15BCC502 | Income tax law and practice   | 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 and their implications in practical situations.                                    |
|    |          |                               | Able to state the use of various deductions to reduce the taxable income.   |
|    |          |                               | Able to understand the rebates available under the act.   |
| 20 | 15BCC504 | DataBaseManagementSystem      | 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                                      |
|    |          |                               | Understand the features of database management systems and Relational database  |
|    |          |                               | Uses of SQL-the standard language of relational databases   |
|    |          |                               | Understand the functional dependencies and design of the database   |

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| 21 | 15BCCP04 | DataBaseManagementSystem Lab | 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  |
|    |          |                              | Define, develop and process single entity, 1:1, 1:M, and M:M database tables  |
|    |          |                              | Design and implement a database schema for a given problem-domain   |
|    |          |                              | Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS  |
|    |          |                              | Improve the database design by normalization  |
| 22 | 15BCCE01 | Banking and Insurance Law    | Understand the commercial banking system and structure  |
|    |          |                              | Develop 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   |
|    |          |                              | Demonstrate the characteristics of life and General Insurance   |
| 23 | 15BCC503 | Business Finance             | The ability to analyse complex issues, to formulate well reasoned and coherent arguments and to reach well considered conclusions.  |
|    |          |                              | The ability to prepare consolidated accounts for a corporate group.   |
|    |          |                              | An understanding of the accounting requirements for a corporate group and familiarity with the theory underlying the methods used to account for inter-company investments. |
|    |          |                              | Describe the their dimensions of performance and risk relevant to financial firms   |
|    |          |                              | Evaluate investments in working capital and long term assets  |
| 24 | 15BCCE07 | Principles of Auditing       | Explain the purpose and context of external audit and other assurance engagements   |
|    |          |                              | Explain the principles of good corporate governance and application of professional and ethical codes.  |
|    |          |                              | Explain the nature of internal audit and its relationship with external audit.  |
|    |          |                              | Demonstrate an auditor's plan to audit as per international standards of auditing.  |
|    |          |                              | Evaluate the findings of the audit and assess their potential impact on auditor's report.   |
| 25 | 15BCC602 | Visual Programming           | Understand .NET Framework and describe some of the major enhancements to the new version of Visual Basic.   |
|    |          |                              | 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 that use ADO. NET.  |
|    |          |                              | Using Crystal Reports.  |
| 26 | 15BCCP05 | Visual Programming Lab       | Working various VB.net Controls.  |
|    |          |                              | Handling Mouse Events in Forms.   |
|    |          |                              | Debugging VB .NET Applications.   |
|    |          |                              | Working with Multiple Forms and MDI Applications.   |
|    |          |                              | Working with Menus and Common Dialogs Date Time Picker, Month Calendar, Splitter Using the Status Bar.  |
|    |          |                              | User Interfaces and Deployments Debugging Applications, Accessing with database and Generating Reports using Crystal Report   |
| 27 | 15BCC601 | Management Accounting        | Explain the importance of management accounting for business  |
|    |          |                              | Analyzes the relationship between the cost volume and profit  |
|    |          |                              | Defining budgeting and operating budget concept   |
|    |          |                              | Explains break-even sales price, contribution, margin of safety and profit margin concept.  |
|    |          |                              | Describes determination of standard cost.   |
| 28 | 15BCCE04 | E-Commerce                   | 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 the new economy.   |

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| <b>PROGRAMME OUTCOME (PO):</b>        |                    |   | The graduates will be able to   |
|                                       |                    |   | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and 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.   |
|                                       |                    |   | Prepare for post graduate studies and to achieve success in their professional careers  |
| <b>PROGRAM SPECIFIC OUTCOME (PSO)</b> |                    |   | The course enables the students to enrich themselves in various functional areas such as Accounting, Taxation, Banking, Insurance and Corporate Law.  |
|                                       |                    |   | provides them with the ability to start entrepreneurial activities.   |
|                                       |                    |   | Enables the students to develop an ability to apply knowledge acquired in problem solving   |
| <b>S.No</b>                           | <b>Course Code</b> | <b>Course Name</b>                                  | <b>Course Outcome</b>   |
| 1                                     | 16BPS101           | Financial Accounting-I                              | Describe various accounting concepts and double entry system of book keeping.   |
|                                       |                    |   | Understand on how to deal with adjustments in Final accounts and also about preparation of Bank Reconciliation statement.   |
|                                       |                    |   | Acquired knowledge on various types of bill of exchange.  |
|                                       |                    |   | Describe about preparation of Consignment and Joint Venture.  |
|                                       |                    |   | Understand the concepts of hire purchase and installment system.  |
| 2                                     | 17BPS102           | Principles of Business Organisation                 | Understanding of the main working aspects of organizations, not only from an economic point of view but also considering organizations as part of society.  |
|                                       |                    |   | Analysis of the economic environment of organizations by means of the development of conceptual areas such as industry, human resources and production.   |
|                                       |                    |   | Knowledge of a comprehensive glossary of economic terms widely used in the analysis and discussion of behavior organization.  |
|                                       |                    |   | Interpreting the meaning of the information emerging from the organization, particularly with regard to the management of human resources and production, industry and stock exchange   |
| 3                                     | 16BPSID1           | Managerial Economics                                | Apply the economic way of thinking to individual decisions and business decisions.  |
|                                       |                    |   | Understand how prices get determined in markets, how market participants benefit in the form of consumer surplus and producer surplus, and what are the consequences of government intervention                                     |
|                                       |                    |   | Measure the responsiveness of consumers' demand to changes in the price of a good or service, the price of other goods and services, and income   |
| 4                                     | 16BPS102           | Finance and Accounting For Business Process Service | Advancing knowledge in preparing depreciation accounts  |
|                                       |                    |   | Preparing the general ledger accounts with chart of accounts  |
|                                       |                    |   | Introducing the system of Account payable system with new technology.   |
|                                       |                    |   | Familiarizing the concept of Branch account and its system and departmental accounting system.  |
|                                       |                    |   | Gaining knowledge about International Financial Reporting Standard and International Accounting Standards.  |
| 5                                     | 17BPS202           | Commercial Law                                      | Understanding the legal rules regarding contract.   |
|                                       |                    |   | Gaining Knowledge on rules necessary for legal enforcement  |
|                                       |                    |   | Describing about different kinds of performances of the contract.   |
|                                       |                    |   | Familiarizing Special Contracts   |
|                                       |                    |   | Identifying the rules and regulations of Sale of Goods Act.   |
|                                       |                    |   | Understanding about the contract of agency  |
| 6                                     | 16BPSID2           | Economic Development and Planning                   | Develop ideas of the basic characteristics of Indian economy, its economic growth and development.  |
|                                       |                    |   | Understand agriculture as the foundation of economic growth and development; analyze the progress and changing nature of agricultural sector and its contribution to the economy as a whole.  |
|                                       |                    |   | Understand the importance, causes and impact of population growth and its distribution, translate and relate them with economic development.  |
|                                       |                    |   | Grasp the importance of planning undertaken by the government of India, have knowledge on the various objectives, failures and achievements as the foundation of the ongoing planning and economic reforms taken by the government. |
| 7                                     | 16BPS301           | Financial Accounting-II                             | Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.  |
|                                       |                    |   | Prepare financial accounts for Voyage Accounts  |
|                                       |                    |   | Prepare financial accounts for Insolvency Accounts  |
| 8                                     | 16BPS302           | Campus to Corporate                                 | To provide an overview of Prerequisites to Business Communication.  |
|                                       |                    |   | To put in use the basic mechanics of Grammar.   |
|                                       |                    |   | To provide an outline to effective Organizational Communication.  |
|                                       |                    |   | To underline the nuances of Business communication.   |

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|    |                       |  | To impart the correct practices of the strategies of Effective Business writing.  |
| 9  | 16BPS303              | Commercial Law                         | Understanding the legal rules regarding contract.   |
|    |                       |  | Gaining Knowledge on rules necessary for legal enforcement  |
|    |                       |  | Describing about different kinds of performances of the contract.   |
|    |                       |  | Familiarizing Special Contracts   |
|    |                       |  | Identifying the rules and regulations of Sale of Goods Act.   |
|    |                       |  | Understanding about the contract of agency  |
| 10 | 16BPS304              | E-commerce                             | Recognize the impact of Information and Communication technologies, especially of the Internet in business operations                       |
|    |                       |  | Recognize the fundamental principles of e-Business and e-Commerce   |
|    |                       |  | Distinguish the role of Management in the context of e-Business and e-Commerce  |
|    |                       |  | Explain the added value, risks and barriers in the adoption of e-Business and e-Commerce  |
|    |                       |  | Examine applications of e-Commerce in relation to the applied strategic   |
|    |                       |  | Use tools and services of the internet in the development of a virtual e-commerce site  |
| 11 | 16BPSA01/<br>16BPSA02 | Banking Theory and Foreign Exchange    | To disseminate knowledge among the students with theoretical structures about banking   |
|    |                       |  | To train and equip the students with the skills of modern banking.  |
|    |                       |  | To gain knowledge about negotiable instruments, foreign exchange markets and its operations,  |
| 12 | 16BPSED1              | EDC 1 Human resource management        | Contribute to the development, implementation, and evaluation of employee recruitment, selection, and retention plans and processes.        |
|    |                       |  | Administer and contribute to the design and evaluation of the performance management program.   |
|    |                       |  | Develop, implement, and evaluate employee orientation, training, and development programs.  |
|    |                       |  | Facilitate and support effective employee and labour relations in both non-union and union environments.                                    |
|    |                       |  | Collaborate with others, in the development, implementation, and evaluation of organizational and health and safety policies and practices. |
| 13 | 16BPS401              | Corporate Accounting I                 | Have a solid foundation in accounting and reporting requirements of the Companies Act and relevant Indian Accounting Standards              |
|    |                       |  | Have a comprehensive understanding of the advanced issues in accounting for assets, liabilities and owner's equity                          |
|    |                       |  | Understand the treatment regarding issue of bonus shares and treatment of prior period profits  |
|    |                       |  | Understand the accounts related to liquidation of companies   |
|    |                       |  | Understand the valuation of goodwill  |
| 14 | 16BPS402              | Company Law and Secretarial Practice   | Analyze the various kinds of companies and the appointment of company secretary procedure   |
|    |                       |  | Understand the forms and contents of MOA and AOA and prospectus   |
|    |                       |  | Structure the various kinds of companies, Transfer and transmission of shares   |
|    |                       |  | Identify the types of Directors , their Appointment and Qualification   |
|    |                       |  | Analyze the different Modes of Winding Up   |
| 15 | 17BPS403              | Banking For Business Process Service-I | To understand the overview of banking and its types.  |
|    |                       |  | To gain knowledge of new technology for purpose of security   |
|    |                       |  | Understanding the concepts of cards, processing, operations and prevention of fraud management in usage of cards.                           |
|    |                       |  | Analyzing the various types of customers and its account types.   |
| 16 | 17BPS404              | M.S. Office and Tally (Practical)      | Describe the usage of computers and why computers are essential components in business and society.   |
|    |                       |  | Utilize the Internet Web resources and evaluate on-line e-business system.  |
|    |                       |  | Solve common business problems using appropriate Information Technology applications and systems.   |
|    |                       |  | Identify categories of programs, system software and applications. Organize and work with files and folders.                                |
|    |                       |  | Describe various types of networks network standards and communication software.  |
| 17 | 17BPSA03/<br>16BPSA04 | Cyber law                              | To understand the legal rules and emerging trends in cyber law  |
|    |                       |  | To know about the security aspects and evidence aspects in recent emerging laws   |
|    |                       |  | To understand the concepts of electronic data interchange   |



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| <b>PROGRAMME OUTCOME (PO):</b>        |                    |                                      | The graduates will be able to   |
|                                       |                    |                                      | Have complete knowledge of Finance, Accounting, Taxation, Information Technology, Business laws and other laws  |
|                                       |                    |                                      | Equip with professional, inter personal and entrepreneurial skills.   |
|                                       |                    |                                      | Gear up with updated knowledge in implementing business practices   |
|                                       |                    |                                      | Evaluate environmental factors that influence business operation.   |
|                                       |                    |                                      | Prepare for post graduate studies and to achieve success in their professional careers  |
| <b>PROGRAM SPECIFIC OUTCOME (PSO)</b> |                    |                                      | Serving as a launch pad for professional programmes like CA, ICWA and ACS   |
|                                       |                    |                                      | Moulding the students in such a way which will make them having superficial knowledge about everything in commerce and in depth knowledge about core subjects |
|                                       |                    |                                      | Provide several opportunities to engage with the accounting professionals   |
| <b>S.NO</b>                           | <b>COURSE CODE</b> | <b>COURSE NAME</b>                   | <b>COURSE OUTCOME</b>   |
| 1                                     | 18BCP101           | Fundamentals of Accounting-I         | To learn basic knowledge of Accounts  |
|                                       |                    |                                      | These units abstract knowledge of Final accounts and BRS  |
|                                       |                    |                                      | Learners knowing Bills of exchange and Average due date   |
|                                       |                    |                                      | To gain knowledge Consignment and Joint ventures  |
|                                       |                    |                                      | To getting the information about Non-profit organisation  |
| 2                                     | 15BCP102           | Management Principles and Practice   | To learn basic knowledge of Management principles   |
|                                       |                    |                                      | Enough knowledge of Planning of management  |
|                                       |                    |                                      | To get wide knowledge about Organising of Managements   |
|                                       |                    |                                      | To gain knowledge of Directing the Organisation   |
|                                       |                    |                                      | To getting the information about Coordinating and controlling of managements  |
| 3                                     | 15BCP201           | Fundamentals of Accounting-II        | These unit getting information of objective of depreciation   |
|                                       |                    |                                      | Learners to getting knowedge of single entry system   |
|                                       |                    |                                      | More information to learn about hire purchase trading accounts  |
|                                       |                    |                                      | To enrich knowedge branch accounts  |
|                                       |                    |                                      | To got the knowedge international financial reporting standard  |
| 4                                     | 15BCP202           | Business Law                         | To enrich the knowedge law of contract  |
|                                       |                    |                                      | To Deprive knowedge of special contracts and indemnity and guarantee  |
|                                       |                    |                                      | To acquire knowedge of performance of contract  |
|                                       |                    |                                      | To getting information of the indemnity and guarantee   |
|                                       |                    |                                      | To learn about law relating sales of goods  |
| 5                                     | 15BCP301           | Advanced Accountancy                 | Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.                              |
|                                       |                    |                                      | Prepare financial accounts for Fire Insurance Claims  |
|                                       |                    |                                      | Prepare financial accounts for Insolvency Accounts  |
|                                       |                    |                                      | Prepare financial accounts for partnership firms in different situations of retirement, death and insolvency of the partners.                                 |
| 6                                     | 15BCP302           | Company Law and Secretarial Practice | Understand the formation and kinds of companies.  |
|                                       |                    |                                      | To acquire knowledge on documents of the company  |
|                                       |                    |                                      | Acquire knowledge on basic documents in a company and various methods of raising of capital.  |
|                                       |                    |                                      | Examine the provisions of Companies Act relating to meetings, resolutions and Company Management  |
|                                       |                    |                                      | To learn about law relating to winding Up of the company  |
| 7                                     | 15BCP303           | Practical Banking                    | Understand and explain the conceptual framework of banking  |
|                                       |                    |                                      | Classify and Demonstrate the types of deposit, cheques, loans and advances  |
|                                       |                    |                                      | Illustrate the various electronic payment methods   |
|                                       |                    |                                      | Acquire knowledge on Negoitable instruments   |
|                                       |                    |                                      | Understand the roles of managers in firms   |

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| 8  | 15BCP304 | General Economics                                   | Understand the internal and external decisions to be made by managers  |
|    |          |   | Analyze the demand and supply conditions and assess the position of a company  |
|    |          |   | Make optimal business decisions by integrating the concepts of economics, mathematics and statistics.  |
|    |          |   | Analyze real-world business problems with a systematic theoretical framework.  |
| 9  | 15BCPA01 | Principles of Marketing                             | Demonstrate understanding of marketing terminology and concepts  |
|    |          |   | Demonstrate knowledge of key business communication strategies within the marketing field  |
|    |          |   | Identify the different promotional methods   |
|    |          |   | Identify wants and environmental factors that shape marketing activities for certain target markets  |
| 10 | 15BCP401 | Corporate Accounting - I                            | Demonstrate knowledge of the online marketing and green marketing  |
|    |          |   | Acquire the conceptual knowledge of the fundamentals of corporate accounting   |
|    |          |   | Understand the concepts and standards underlying the accounting procedures used to measure business performance                                  |
|    |          |   | Have a comprehensive knowledge about the latest provisions of the Companies Act.   |
| 11 | 15BCP402 | Cost Accounting                                     | Demonstrate knowledge on issue of shares   |
|    |          |   | Explain the basic concept of cost and how costs are presented in financial statements.   |
|    |          |   | Demonstrate how materials, labor and overhead costs are added to a product at each stage of the production cycle.                                |
|    |          |   | Analyze the basic cost flow model and be able to assign costs in a job cost system.  |
| 12 | 15BCP403 | Practical Auditing                                  | Understand the basic concept of process costing  |
|    |          |   | Understand the basic auditing principles, concepts, planning an audit and due diligence.   |
|    |          |   | Illustrate the steps required to perform Internal control and Internal check, Vouching and Verification and Valuation of Assets and Liabilities. |
|    |          |   | Gain expert knowledge on current auditing practices and procedures and apply them in auditing engagements as well as detection of frauds         |
| 13 | 15BCP404 | Industrial and Labour Law                           | Illustrate the steps required to perform of Valuation of Assets and Liabilities.   |
|    |          |   | Understand the laws relating to Factories Act  |
|    |          |   | To enlighten the concept of Industrial disputes Act  |
|    |          |   | To introduce the basic concept of Workmen compensation Act   |
| 14 | 15BCPA03 | Management of Financial Markets and Services        | To make them aware about Payment of Wages ACT  |
|    |          |   | Describe Trade Unions Act  |
|    |          |   | Understand the Financial and money market  |
|    |          |   | To enlighten the concept of Securities regulation Act 1956   |
| 15 | 15BCP501 | Corporate Accounting - II                           | To introduce the basic concept of intermediaries and their roles   |
|    |          |   | To make them aware about SEBI and Mutual Fund  |
|    |          |   | Describe the concept of Depositories Act 1996  |
|    |          |   | Enable the students to understand about amalgamation, absorption and external reconstruction   |
| 16 | 15BCP502 | Strategic Management                                | 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   |
| 17 | 15BCP503 | Business Ethics and Corporate Social Responsibility | The students are able to learn the fundamentals of strategic management using the case method.   |
|    |          |   | Analyse the Environmental factors in strategic management using in case method.  |
|    |          |   | Understand the corporate strategies and the frame work of strategic management.  |
|    |          |   | Understand the organizational strategies and how to implement the strategy.  |
|    |          |   | 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   |
|    |          |   | Understand the value and Do's and Don'ts of Ethics in business environment   |
|    |          |   | Better understand the concepts that used in international perspective  |
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|    |          |                             | Understand the role and functions of regulatory agencies   |
| 18 | 15BCP504 | Taxation -I                 | Examine the basic concepts of schedule of rates of tax, tax liability, penalties and prosecution                                     |
|    |          |                             | Explain the total taxable income of an assessee  |
|    |          |                             | Apply and practice the computation of total income   |
|    |          |                             | Apply and practice the computation of salary   |
|    |          |                             | Apply and practice the computation of set off  |
| 19 | 15BCP505 | Research Methodology        | 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   |
|    |          |                             | Apply various parametric tests to test hypothesis  |
|    |          |                             | Develop necessary critical thinking skills in order to formulate the report writing  |
| 20 | 15BCPE01 | Entrepreneurial Development | Understand the basic concepts of Entrepreneurship  |
|    |          |                             | Understand the scope of entrepreneurship   |
|    |          |                             | understand the project selection procedure   |
|    |          |                             | Awareness about the financial institution in rendering financial services  |
|    |          |                             | Awareness about schemes that available for retrieving sick industry  |
| 21 | 15BCP601 | Management Accounting       | Acquire knowledge on Three primary purposes of management accounting namely, inventory valuation, decision support and cost control. |
|    |          |                             | Compare traditional and contemporary costing approaches for the above purposes.  |
|    |          |                             | Learn how costs are analysed for different product costing contexts such as job-order, process or joint-product systems              |
|    |          |                             | Develop and apply standards and budgets for planning and controlling purposes  |
|    |          |                             | Apply incremental analysis to a range of business scenarios.   |
| 22 | 15BCP602 | Investment Management       | Understanding the concept of investment  |
|    |          |                             | Acquire the conceptual knowledge of the risk and analysing the return on investment  |
|    |          |                             | Awareness about the security analysis and approaches to security analysis  |
|    |          |                             | Learn how price are analysed for stock and taking decisions for efficient market Hypothesis  |
|    |          |                             | Awareness about the portfolio management   |
| 23 | 15BCP603 | Taxation -II                | Understand the basic principles underlying the Indirect Taxation Statutes  |
|    |          |                             | Identify and analyze the procedural aspects under different applicable statutes related to indirect taxation                         |
|    |          |                             | Examine the concepts used in indirect tax, assessment, powers, duties, offences, penalties etc.                                      |
|    |          |                             | Acquire knowledge on GST   |
|    |          |                             | Acquire knowledge on GST and its procedure   |
| 24 | 18BCPE04 | Financial Management        | 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 their costs                     |
|    |          |                             | Justify the contemporary financial management strategies which are preferred to specific projects                                    |
|    |          |                             | Analyze the finances of individual corporations both in terms of their performance and capital requirements                          |
| 25 | 15BCPE07 | Human Resource Management   | Develop a meaningful understanding of HRM theory, functions and practices.   |
|    |          |                             | Apply Human Resource Planning, Recruitment and Selection and skills across various types of organizations.                           |
|    |          |                             | Know about the Interview process, Induction and Orientation, Training techniques.  |
|    |          |                             | 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.                |

#### B.Sc (Computer Science)

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|  | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to |
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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |   | Attain the core value in their respective area to meet out the global competitive edge.  |
|  |                    |   | Apply and update their skills towards their employability, entrepreneurship and its sustainability.  |
|  |                    |   | Realize their responsibility towards the society centre through ethical, social and human values.  |
|  |                    |   | Recognize the opportunities towards their up gradation and professional development in all spheres.  |
|  |                    |   | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |   | Serve as the Programmers or the Software Engineers or Hardware Designers with the sound knowledge of practical and theoretical concepts for developing software and Networking Concepts. |
|  |                    |   | To Give Technical Support for the various systems and Serve as the Web Designers with latest web development technologies  |
|  |                    |   | Work as Consultant and Management officers for system management.  |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                                    | <b>Course Outcome</b>  |
| 1  | 18BSC101           | Core 1- Digital Computer Fundamentals & C Programming | Bridge the fundamental concepts of computers with the present level of knowledge of the students.  |
|  |                    |   | Familiarise operating systems, programming languages, peripheral devices, networking, multimedia and internet.   |
|  |                    |   | Understand binary, hexadecimal and octal number systems and their arithmetic.  |
|  |                    |   | Understand how logic circuits and Boolean algebra forms as the basics of digital computer.   |
|  |                    |   | Demonstrate the building up of Sequential and combinational logic from basic gates.  |
| 2  | 18BSCP01           | Core Lab I – C Programming lab                        | Understand the concept of data types, loops, functions, array, pointers, string, structures and files.   |
|  |                    |   | Design flow-chart, algorithm and program logic.  |
|  |                    |   | Analyze problems, errors and exceptions.   |
|  |                    |   | Apply programming concepts to compile and debug c programs to find solutions.  |
|  |                    |   | Write C programs using Pointers to access arrays, strings and functions.   |
| 4  | 15BSC201           | Core 2 : Object Oriented Programming in C++           | Understand the features of C++ supporting object oriented programming  |
|  |                    |   | Understand how to produce object-oriented software using C++   |
|  |                    |   | Illustrate the process of data file manipulations using C++  |
|  |                    |   | Apply virtual and pure virtual function & complex programming situations   |
|  |                    |   | To analyze characteristics of OOP and implement OOP in various applications  |
| 5  | 18BSCP02           | Core Lab 2 – C++ Programming Lab                      | Distinguish between Structured and Object Oriented problem solving approaches and apply them based on the problem given  |
|  |                    |   | Identify classes and objects from the given problem description and able to create classes and objects using C++   |
|  |                    |   | Improve secured data processing by applying Abstraction, Encapsulation and Information hiding  |
|  |                    |   | Achieve code reusability and extensibility by means of Inheritance and Polymorphism.   |
|  |                    |   | Translate the informal description of an algorithm to solutions for problems in engineering, science and text processing using Object Oriented Programming.                              |
| 6  | 15BSC301           | Core 3: Data Structures                               | Assess how the choice of data structures and algorithm design methods impacts the performance of programs.   |
|  |                    |   | Choose the appropriate data structure and algorithm design method for a specified application.   |
|  |                    |   | Solve problems using data structures such as linear lists, stacks, queues, hash tables, binary trees, heaps, binary search trees, and graphs and writing programs for these solutions    |
|  |                    |   | Understand the behavior of advanced data structure   |
|  |                    |   | Analyze and determine the appropriate data structure for a problem.  |
| 7  | 15BSC302           | Core 4: Java Programming                              | Apply the algorithms and design techniques to solve problems.  |
|  |                    |   | Identify classes, objects, members of a class and relationships among them needed for a specific problem   |
|  |                    |   | Use an integrated development environment to write, compile, run, and test simple object-oriented Java programs.   |
|  |                    |   | Demonstrate the concepts of polymorphism and inheritance   |
|  |                    |   | Identify and fix defects and common security issues in code  |
| 8  | 15BSC303           | Core 5 : Computer Networks                            | Able to visualize layered approach to networking and understand various application layer protocols  |
|  |                    |   | Able to understand transport layer concepts, protocols & services.   |
|  |                    |   | Able to demonstrate the basic understanding of network layer, routing principles, IPv6.  |
|  |                    |   | Able to develop fundamental understanding of Link layer, multiple access protocol, LAN addresses & ARP, CSMA / CD, PPP details   |
|  |                    |   | Able to describe basic concepts and algorithms of cryptography including Hash functions, digital signatures, SSL, SET & IPsec  |

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| 9  | 15BSCP03              | Core Lab 3: Java Programming Lab                         | <p>Use the object oriented concepts of java for the given problem.</p> <p>Understand the enabling technologies for building internet applications.</p> <p>Write Java programs for techniques and features of the networking and remote method development to Construct a internet application.</p> <p>Implement packages, access specifiers and interfaces in a program</p> <p>Write JAVA programs to demonstrate method overloading</p>  |
| 10 | 18BSCA01/<br>18BSCA02 | AOC I Multimedia Lab /Python Lab                         | <p>Developed understanding of technical aspect of Multimedia Systems.</p> <p>Able to Understand various file formats for audio, video and text media.</p> <p>Able to Develop various Multimedia Systems applicable in real time.</p> <p>Able to Design interactive multimedia software.</p> <p>To evaluate multimedia application for its optimum performance.</p>  |
| 11 | 15BSC401              | Core 6 : Data Base Management System                     | <p>Use the techniques, components and tools of a typical database management system.</p> <p>Design a correct, new database information system for a business functional area and implement the design in either SQL or NoSQL.</p> <p>Understand the concepts of open source databases like MongoDB and MySQL.</p> <p>To Know the concepts of SQL, PL/SQL, Triggers , cursors and Normalization</p> <p>Understand, appreciate and effectively explain the underlying concepts of database technologies</p> |
| 12 | 15BSC402              | Core 7: Web Designing                                    | <p>create a PHP web page that is unique to each visitor</p> <p>customise the theme for a WordPress site</p> <p>perform various MySQL database queries</p> <p>seek solutions to any PHP problems and further your knowledge.</p> <p>use PHP-driven dynamic content in HTML5 animations</p>   |
| 13 | 15BSC403              | Core 8: Operating Systems                                | <p>Able to describe process management and concepts of threading, multitasking, IPC.</p> <p>Able to differentiate various scheduling algorithms and identify the reasons of deadlock and their remedial measures in an operating system</p> <p>Able to describe various memory management techniques</p> <p>Able to understand representation of file system interface.</p> <p>Able to Analyze disk scheduling algorithms for efficient utilization.</p>  |
| 14 | 15BSCP04              | Core Lab 4: Web Designing Lab                            | <p>Design, develop and host a userfriendly website.</p> <p>Know the usage of APIs</p> <p>Layout management in line with current trend.</p> <p>Use fundamental skills to maintain web server services required to host a website.</p> <p>Select and apply markup languages for processing, identifying, and presenting of information in web pages.</p>  |
| 15 | 18BSCA03/<br>15BSCA04 | AOC II :PC Hardware / Application Development in Android | <p>Describe Hardware and Software Technologies</p> <p>Analyze abstract problems and apply a combination of hardware and software to address the problem</p> <p>Study and enhance software/ hardware skills.</p> <p>Demonstrate and build the project successfully by hardware requirements, coding, emulating and testing.</p> <p>Analyze the various tools in hardware</p>   |
|    |                       |  | <p>Able to understand the different process models and project management concepts</p> <p>Able to develop skills for cost estimation for software development and understand the software risks.</p>  |

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| 16 | 15BSC501                           | Core 9: Software Engineering   | <p>Able to enhance teamwork ability in project scheduling and apply the concepts of software quality assurance</p> <p>Able to relate and outline system engineering and product engineering process.</p> <p>Able to apply requirement mapping strategies for development of software.</p>   |
| 17 | 15BSC502                           | Core 10: ASP.Net Programming   | <p>Understand the Microsoft .NET Framework and ASP.NET page structure</p> <p>Design web application with variety of controls</p> <p>Access the data using inbuilt data access tools</p> <p>Use Microsoft ADO.NET to access data in web Application</p> <p>Configure and deploy Web Application</p> <p>Develop secured web application</p>   |
| 18 | 15BSC503                           | Core 11: Distributed Computing   | <p>demonstrate knowledge of the basic elements and concepts related to distributed system technologies;</p> <p>Demonstrate knowledge of the core architectural aspects of distributed systems;</p> <p>Design and implement distributed applications.</p> <p>Demonstrate knowledge of details the main underlying components of distributed systems (such as RPC, file systems)</p> <p>Use and apply important methods in distributed systems to support scalability and fault tolerance</p>   |
| 19 | 15BSC504                           | Core 12: Computer Graphics   | <p>Have a basic understanding of the core concepts of computer graphics</p> <p>Be capable of using OpenGL to create interactive computer graphics.</p> <p>Understand a typical graphics pipeline.</p> <p>Have made pictures with their computer</p> <p>To make the students familiar with techniques of clipping, three dimensional graphics and three dimensional transformations.</p> <p>The computer graphics course prepares students for activities involving in design, development and testing of modeling, rendering, shading and animation.</p>  |
| 20 | 15BSCP05                           | Core Lab 5: ASP.Net Programming Lab  | <p>Upon successful course completion the concepts of this third generation component model and the first component based language</p> <p>The students able to create simple web applications and window applications</p> <p>You will be able to using XML in C#.NET specifically ADO.NET and SQL serve</p> <p>To develop Assemblies and Deployment in .NET, Mobile Application Development</p> <p>To understand and be able to explain Security in the .NET framework and Deployment in the .NET.</p>   |
| 21 | 17BSCE01/<br>15BSCE02/<br>15BSCE03 | Elective I: Open Source Technologies / System Software/Unified Modeling Language | <p>Create and analyze activity and state diagrams</p> <p>Implementation of the diagrams in Unified Modeling Language</p> <p>Documenting user requirements using the UML notation</p> <p>Description of the various components of UML</p> <p>Principles of software development process</p> <p>Understanding and implementation of a software development process</p> <p>Create and analyze activity and state diagrams</p> <p>Implementation of the diagrams in Unified Modeling Language</p> <p>Documenting user requirements using the UML notation</p> <p>Description of the various components of UML</p> |
| 22 | 15BSC601                           | Core 13: Application Development in Java   | <p>Learn the Internet Programming, using Java Applets</p> <p>Make a reusable software component, using Java Bean</p> <p>Demonstrate the concepts of polymorphism and inheritance</p> <p>Identify and fix defects and common security issues in code</p> <p>Identify classes, objects, members of a class and relationships among them needed for a specific problem</p>   |
|    |                                    |  | <p>Demonstrate advanced knowledge of the current state-of-the-art in the field of cyber and information security.</p> <p>Demonstrate capabilities to apply knowledge in new areas within cyber and information security, in particular cloud computer security, security on the Internet of Things (IoT), and security of blockchain technology applications.</p>   |

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| 23 | 15BSC602                            | Core 14: Information Security   | <p>Gain familiarity with prevalent network and distributed system attacks, defenses against them, and forensics to investigate the aftermath.</p> <p>Determine appropriate mechanisms for protecting information systems ranging from operating systems to database management systems and to applications.</p> <p>Develop an understanding of information assurance as practiced in computer operating systems, distributed systems, networks and representative applications</p>   |
| 24 | 15BSCP06                            | Core Lab 6: Application Development in Java Lab   | <p>Able to specify the types of inheritance and use them in programs.</p> <p>WriteJava application programs using OOP principles and proper program structuring</p> <p>WriteJava programs to implement error handling techniques using exception handling</p> <p>Write JAVA programs to demonstrate method overloading</p> <p>Identify usage of collection framework</p>   |
| 25 | 15BSCE04/<br>15BSCE05/<br>15BSCE06  | Elective II: Data Mining/ Artificial Intelligence/<br>Network Security and Cryptography | <p>Demonstrate an understanding of the importance of data mining and the principles of business intelligence</p> <p>Organize and Prepare the data needed for data mining using pre preprocessing techniques</p> <p>Perform exploratory analysis of the data to be used for mining.</p> <p>Implement the appropriate data mining methods like classification, clustering or Frequent Pattern mining on large data sets.</p> <p>Student will be able to understand basic cryptographic algorithms,message and web authentication and security issues.</p> <p>Ability to identify information system requirements for both of them such as client and server.</p> <p>Ability to understand the current legal issues towards information security</p> <p>Understand the various searching techniques, constraint satisfaction problem and example problems- game playing techniques.</p> <p>Apply these techniques in applications which involve perception, reasoning and learning</p> <p>Acquire the knowledge of real world Knowledge representation.</p> |
| 26 | 15BSCE07/<br>15BSCE08/<br>*17BSCE09 | Elective III: Mobile Computing/ Cloud<br>Computing/ Internet of Things                  | <p>Evaluate the architecture and principles of operation of computer systems and networks.</p> <p>Design and develop software systems for various application domains.</p> <p>Manage the development of software systems through a variety of development processes and methodologies.</p> <p>Synthesize new knowledge in the field of computer science by using appropriate research methodologies.</p> <p>Demonstrate the ability to design a system, componentor process as per needs andspecifications.</p> <p>Apply the concepts of IOT.</p> <p>Identify the different technology.</p> <p>Apply IOT to different applications.</p> <p>Analysis and evaluate protocols used in IOT.</p> <p>Design and develop smart city in IOT.</p> <p>Analysis and evaluate the data received through sensors in IOT.</p> <p>Provide a good understanding of cloud computing and a systematic knowledge of the fundamental technologies, architecture, and security.</p> <p>Core issues of cloud computing such as security, privacy, and interoperability</p>     |

#### B.Sc (INFORMATIONTECHNOLOGY)

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| <b>PROGRAMME OUTCOME (PO):</b>           | <p>After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to</p> <p>Attain the core value in their respective area to meet out the global competitive edge.</p> <p>Apply and update their skills towards their employability, entrepreneurship and its sustainability.</p> <p>Realize their responsibility towards the society centre through ethical, social and human values.</p> <p>Recognize the opportunities towards their up gradation and professional development in all spheres.</p> <p>Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.</p> |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> | <p>Understand the field of Information Technology, to provide holistic knowledge about Software and analyze the relationship among storing, processing, securing and managing information.</p> <p>sustainable development and Acquire the knowledge in the various fields of Information Technology including Networks,Testing, Information Security,Databases and Programming skills.</p>   |

|      |             |   | B.Sc IT graduates are hired as Programmer, Database Administrator, IT Specialists, Technology Engineer, and Web Designer.  |
|------|-------------|---|--|
| S.NO | COURSE CODE | COURSE NAME                                   | COURSE OUTCOME   |
| 1    | 18BIT101    | Core 1 – Programming in C                     | Develop conditional and iterative statements to write C programs   |
|      |             |   | Inscribe C programs that use Pointers to access arrays, strings and functions.   |
|      |             |   | Exercise user defined data types including structures and unions to solve problems   |
|      |             |   | Inscribe C programs using pointers and to allocate memory using dynamic memory management functions.   |
|      |             |   | Exercise files concept to show input and output of files in C  |
| 2    | 18BITP01    | Core Lab 1 - C Lab                            | Understand basic Structure of the C-PROGRAMMING, declaration and usage of variables  |
|      |             |   | Write C programs using operators   |
|      |             |   | Exercise conditional and iterative statements to Write C programs  |
|      |             |   | Write C programs using Pointers to access arrays, strings and functions.   |
|      |             |   | Write C programs to implement concept of command line arguments  |
| 3    | 18BIT102    | Core 2 - Object Oriented Programming with C++ | Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.   |
|      |             |   | Understand dynamic memory management techniques using pointers, constructors, destructors, etc   |
|      |             |   | Describe the concept of function overloading, operator overloading.  |
|      |             |   | Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.   |
|      |             |   | Describe the concept of virtual functions and polymorphism.  |
| 4    | 18BITP02    | Core Lab 2 - C++ Lab                          | Student will Understand functions in C++ programming.  |
|      |             |   | Understand the concept of function overloading, operator overloading.  |
|      |             |   | Demonstrate the use of classes and objects.  |
|      |             |   | Demonstrate the use of constructors, destructors, polymorphism, inline functions.  |
|      |             |   | Write, compile and execute c++ programs using virtual functions and files.   |
| 5    | 15BIT301    | Core 3 – Java Programming                     | Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, and JDeveloper |
|      |             |   | 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  |
|      |             |   | Write, compile, and execute Java programs using arrays and recursion.  |
|      |             |   | Write, compile, and execute Java programs manipulating Strings and text documents.   |
|      |             |   | Write, compile, execute Java programs that include GUIs and event driven programming.  |
| 6    | 15BIT302    | Core 4 - Data Structures                      | Select appropriate data structures as applied to specified problem definition.   |
|      |             |   | Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.  |
|      |             |   | Students will be able to implement Linear and Non-Linear data structures.  |
|      |             |   | Implement appropriate sorting/searching technique for given problem.   |
|      |             |   | Determine and analyze the complexity of given Algorithms.  |
| 7    | 15BIT303    | Core 5 - Computer Organization & Architecture | Describe basic organization of computer and the architecture of 8086 microprocessor.   |
|      |             |   | Implement assembly language program for given task for 8086 microprocessor.  |
|      |             |   | Demonstrate control unit operations and conceptualize instruction level parallelism.   |
|      |             |   | Categorize memory organization and explain the function of each element of a memory hierarchy.   |
|      |             |   | Identify and compare different methods for computer I/O mechanisms.  |
| 8    | 15BITP03    | Core Lab 3 – Java Programming Lab             | Know about new ideas and advances, techniques, and tools and to use them effectively   |
|      |             |   | Implement Object Oriented Programming Concepts   |
|      |             |   | Use and create packages and interfaces in a Java program   |
|      |             |   | Use graphical user interface in Java programs  |



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|    |          |                                       | Create Applets and implementing exception handling and multithreading concepts.  |
| 9  | 15BITA01 | AOC I - Management Information System | Recognize contemporary MIS theory and how information systems support business strategy, business processes, and practical applications in an organization.<br>Describe how the Internet and World Wide Web provide a global platform for e-business, business mobility and communications, collaboration, and cloud computing<br>Express the proven value of, and relationship between business data, data management, and business intelligence<br>Combine analytical thinking, creativity and business-problem-solving as applied to ongoing MIS challenges, future trends, and relevant case studies |
| 10 | 15BITA02 | AOC I -E- Commerce                    | Define and differentiate various types of Ecommerce.<br>Describe Hardware and Software Technologies for Ecommerce.<br>Explain payment systems for E - commerce.<br>Describe the process of Selling and Marketing on web.   |
| 11 | 15BIT401 | Middleware Technologies               | Describe the benefits and architecture of Client Server Technology.<br>Understand the concepts of CORBA, RMI and .Net technologies<br>Apply the components of C# .Net technology to given applications<br>Classify the architecture of CORBA and mapping the CORBA with existing Programming languages like Java.<br>Implement integration of component based architectures with Enterprise applications   |
| 12 | 15BIT402 | Computer Networks                     | Describe the functions of each layer in OSI and TCP/IP model.<br>Explain the functions of Application layer and Presentation layer paradigms and Protocols.<br>Describe the session layer design issues and Transport layer protocols and analyze how to<br>Identify the various computer network protocol design models and the usage of various types of transmission media and working of LAN technology<br>Familiarize the various wireless LAN concepts and the design of adhoc wireless network  |
| 13 | 15BIT403 | Core 8 – Operating System             | Able to describe process management and concepts of threading, multitasking,IPC.<br>Able to differentiation of various scheduling algorithms and identify the reasons of deadlock and their remedial measures in an operating system.<br>Able to describe various memory management techniques.<br>Able to Analyze of disk scheduling algorithms for efficient utilization.<br>Able to apply the concepts of operating system to study Linux.  |
| 14 | 15BITP04 | Middleware technologies lab           | learn the Internet Programming, using Java Applets<br>apply event handling on AWT and Swing components.<br>learn to access database through Java programs, using Java Data Base Connectivity (JDBC)<br>create dynamic web pages, using Servlets and JSP.<br>make a reusable software component, using Java Bean.<br>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).   |
| 15 | 15BITA03 | AOC II - Web Designing                | Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.<br>Develop skills in analyzing the usability of a web site.<br>Learn the language of the web: HTML and CSS.<br>Be able to embed social media content into web pages.   |
| 16 | 15BITA04 | AOC II-Embedded System                | To introduce the embedded Hardware and Interfacing.<br>To make the students familiar with software development & tools for embedded systems.<br>The objective of the course is to cover the Hardware Design, Software Development & RTOS for the Embedded Systems.<br>Ability to use ANSI C to develop embedded software.  |
| 17 | 15BIT501 | Core 9 - . Net Framework              | Upon successful course completion the concepts of .NET framework<br>The students able to create simple webapplications and window applications<br>Able to connect database using ADO.NET in C#.NET<br>To develop Assemblies and Deployment in .NET, Mobile Application Development<br>To understand and be able to explain Exception handling and Threads  |
|    |          |                                       | Evaluate the architecture and principles of operation of computer systems and networks.  |

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| 18 | 15BIT502 | Core 10 – Mobile Computing             | Design and develop software systems for various application domains.<br>Manage the development of software systems through a variety of development processes and methodologies.<br>Synthesize new knowledge in the field of computer science by using appropriate research methodologies.<br>Demonstrate the ability to design a system, component or process as per needs and specifications.  |
| 19 | 15BIT503 | Core 11 – Software Engineering         | Able to understand the different process models and project management concepts<br>Able to develop skills for cost estimation for software development and understand the software risks.<br>Able to enhance teamwork ability in project scheduling and apply the concepts of software quality assurance<br>Able to relate and outline system engineering and product engineering process.<br>Able to apply requirement mapping strategies for development of software.  |
| 20 | 15BIT504 | Core 12 – RDBMS                        | Understand, appreciate and effectively explain the underlying concepts of database technologies<br>Design and implement a database schema for a given problem-domain<br>Populate and query a database using SQL DML/DDDL commands<br>Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS<br>To Know the concepts of SQL, PL/SQL, Triggers, cursors and Normalization  |
| 21 | 15BITP05 | Core Lab 5 - Net Framework Lab         | Able to understand the console application creation and its implementation<br>Describe how to upload the document file in our own directory<br>Demonstrate the basic DML Operations<br>Describe how to transact records in database<br>Illustrate how to generate a data report  |
| 22 | 15BITE01 | Elective I - Software Agents           | Students can able to Design the architecture for an agent<br>Students can able to Design the agent in details in a view for the implementation<br>Students can able to Design typical agents using a tool for different types of applications<br>Able to understand the different types of agents.<br>Know about the tools.  |
| 23 | 15BITE02 | Elective I - Bio – Informatics         | Able to apply knowledge and awareness of the basic principles and concepts of biology, computer science and mathematics<br>Existing software effectively to extract information from large databases and to use this information in computer modeling<br>Problem-solving skills, including the ability to develop new algorithms and analysis methods<br>the ability to speak the language of structure-function relationships, information theory, gene expression, and database queries<br>Students will Create computer programs that facilitate biological data analysis |
| 24 | 15BITE03 | Elective I - Data Mining & Warehousing | Describes basic data mining tasks, KDD process and various databases techniques<br>Describes why to preprocess the data and the concept of data cleaning, integration<br>Illustrate the social implications of Data Mining<br>Able to understand the various classification of algorithms like distance, decision tree based, neural network algorithms<br>Defines the clustering and association rules followed in data mining  |
| 25 | 15BIT601 | Core 13 - PHP Programming              | Understand how server-side programming works on the web.<br>PHP Basic syntax for variable types and calculations.<br>Creating conditional structures<br>Storing data in arrays<br>Using PHP built-in functions and creating custom functions<br>Understanding POST and GET in form submission.   |
| 26 | 15BIT602 | Core 14 – Information Security         | Understand the basic concepts of attacks, methods of defence and classification of hackers<br>Demonstrate the basic cryptographic terms, data encryption standard, fundamentals concepts of DES<br>Identifies different types of flaws, kinds of malicious code and prevention of virus infection<br>Able to understand the file protection mechanisms, user authentication<br>Describes the security requirements, ethical issues in computer security  |

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| 27 | 15BITP06 | Core Lab 6 - PHP Lab                 | Use HTML form elements that work with any server-side language   |
|    |          |                                      | Create a PHP web page that is unique to each visitor   |
|    |          |                                      | Validate user input  |
|    |          |                                      | Create, back up and restore a MySQL database   |
|    |          |                                      | Perform various MySQL database queries   |
| 28 | 15BITE04 | Elective II : Distributed Computing  | Describes the characteristics of Distributed systems and their models  |
|    |          |                                      | Defines the interprocess communication and internetworking   |
|    |          |                                      | Identify the security issues in OS support and distributed file systems  |
|    |          |                                      | Identify the time and global states and coordination and agreement techniques  |
|    |          |                                      | Define detailly on distributed transactions  |
| 29 | 15BITE05 | Elective II :MANET                   | To understand the routing algorithm used mobile adhoc network  |
|    |          |                                      | To understand the Transport protocol of mobile adhoc networks  |
|    |          |                                      | To understand the security mechanism used in mobile adhoc network  |
|    |          |                                      | To understand the quality of service .   |
|    |          |                                      | To understand & develop any existing or new protocol related to mobile environment   |
| 30 | 15BITE06 | Elective II :Client/server computing | Understand the fundamental concept of web services including client server systems, system models, networks of distributed system  |
|    |          |                                      | Able to identify analyse and solve broadly defined problems  |
|    |          |                                      | Able to understand the multi tier client server computing  |
|    |          |                                      | Design and develop client server systems with better security and specifies how to perform optimally   |
|    |          |                                      | Can track and analyse advanced client server systems   |
| 31 | 15BITE07 | Elective III : Software Testing      | Can develop basic network code including sockets, streams for simple client server applications  |
|    |          |                                      | Have an ability to apply software testing knowledge and engineering methods.   |
|    |          |                                      | Have an ability to design and conduct a software test process for a software testing projec.   |
|    |          |                                      | Have an ability to understand and identify various software testing problems, and solve these problems by designing and selecting software test models, criteria, strategies, and methods                |
|    |          |                                      | Have an ability to design and conduct various types and levels of software testing for a software project.   |
| 32 | 15BCTE08 | Elective III :XML                    | Have basic understanding, knowledge of contemporary issues in software testing and test planning.  |
|    |          |                                      | Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation   |
|    |          |                                      | Expand the student understanding of the various application of XML   |
|    |          |                                      | Describes XML schema and DTD and their infra structures  |
|    |          |                                      | Able to implement the XML data model and access XML Databases  |
| 33 | 15BCTE09 | Elective III :Multimedia             | Demonstrates web services and SOAP concepts  |
|    |          |                                      | Understand the XML security framework, digital signature   |
|    |          |                                      | To understand the characteristics of different media; understand the representations of different multimedia data;   |
|    |          |                                      | To understand different data formats; be able to take into considerations in multimedia system designs;  |
|    |          |                                      | 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; |
|    |          |                                      | Understand different compression principles, compression techniques,multimedia compression standards.  |
|    |          |                                      | To program multimedia data and be able to design and implement media applications;   |

#### B.Sc (COMPUTER TECHNOLOGY)

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| PROGRAMME OUTCOME (PO): | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to: |
|                         | Attain the core value in their respective area to meet out the global competitive edge.                                   |
|                         | Apply and update their skills towards their employability, entrepreneurship and its sustainability.                       |
|                         | Realize their responsibility towards the society centre through ethical, social and human values.                         |
|                         | Recognize the opportunities towards their up gradation and professional development in all spheres                        |

|  |             |   | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.   |
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| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |             |   | the theoretical foundations of information and computation with their implementation and application in Computer Systems<br>Networks, Information Security, Databases, and Programming and Comprehend the professional ethics in any science subject to help in the development of interdisciplinary approach for sustainable developments.<br>B.Sc. (CT) graduates have great opportunity to enter the ever expanding software and IT fields as Programmers, Network Administrators and System Analysts. |
| S.NO                                     | COURSE CODE | COURSE NAME                                   | COURSE OUTCOME  |
| 1  | 18BCT101    | Core 1 – Programming in C                     | Develop conditional and iterative statements to write C programs  |
|  |             |   | Inscribe C programs that use Pointers to access arrays, strings and functions.  |
|  |             |   | Exercise user defined data types including structures and unions to solve problems  |
|  |             |   | Inscribe C programs using pointers and to allocate memory using dynamic memory management functions.  |
|  |             |   | Exercise files concept to show input and output of files in C   |
| 2  | 18BCTP01    | Core Lab 1 - C Lab                            | Understand basic Structure of the C-PROGRAMMING, declaration and usage of variables   |
|  |             |   | Write C programs using operators  |
|  |             |   | Exercise conditional and iterative statements to Write C programs   |
|  |             |   | Write C programs using Pointers to access arrays, strings and functions.  |
|  |             |   | Write C programs to implement concept of command line arguments   |
| 3  | 18BCT102    | Core 2 - Object Oriented Programming with C++ | Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.  |
|  |             |   | Understand dynamic memory management techniques using pointers, constructors, destructors, etc  |
|  |             |   | Describe the concept of function overloading, operator overloading.   |
|  |             |   | Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.  |
|  |             |   | Describe the concept of virtual functions and polymorphism.   |
| 4  | 18BITP02    | Core Lab 2 - C++ Lab                          | Student will Understand functions in C++ programming.   |
|  |             |   | Understand the concept of function overloading, operator overloading.   |
|  |             |   | Demonstrate the use of classes and objects.   |
|  |             |   | Demonstrate the use of constructors, destructors, polymorphism, inline functions.   |
|  |             |   | Write, compile and execute c++ programs using virtual functions and files.  |
| 5  | 15BCT301    | Core 3 – Java Programming                     | Write, compile, and execute Java programs that may include basic data types and control flow constructs using J2SE or other Integrated Development Environments (IDEs) such as Eclipse, NetBeans, and JDeveloper  |
|  |             |   | 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   |
|  |             |   | Write, compile, and execute Java programs using arrays and recursion.   |
|  |             |   | Write, compile, and execute Java programs manipulating Strings and text documents.  |
|  |             |   | Write, compile, execute Java programs that include GUIs and event driven programming.   |
| 6  | 15BCT302    | Core 4 - Data Structures                      | Select appropriate data structures as applied to specified problem definition.  |
|  |             |   | Implement operations like searching, insertion, and deletion, traversing mechanism etc. on various data structures.   |
|  |             |   | Students will be able to implement Linear and Non-Linear data structures.   |
|  |             |   | Implement appropriate sorting/searching technique for given problem.  |
|  |             |   | Determine and analyze the complexity of given Algorithms.   |
| 7  | 15BCT303    | Core 5 - Computer Organization & Architecture | Describe basic organization of computer and the architecture of 8086 microprocessor.  |
|  |             |   | Implement assembly language program for given task for 8086 microprocessor.   |
|  |             |   | Demonstrate control unit operations and conceptualize instruction level parallelism.  |
|  |             |   | Categorize memory organization and explain the function of each element of a memory hierarchy.  |
|  |             |   | Identify and compare different methods for computer I/O mechanisms.   |
|  |             |   | Know about new ideas and advances, techniques, and tools and to use them effectively  |

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| 8  | 15BCTP03 | Core Lab 3 – Java Programming Lab       | Implement Object Oriented Programming Concepts   |
|    |          |   | Use and create packages and interfaces in a Java program   |
|    |          |   | Use graphical user interface in Java programs  |
|    |          |   | Create Applets and implementing exception handling and multithreading concepts.  |
| 9  | 15BCTA01 | AOC I - Management Information System   | Recognize contemporary MIS theory and how information systems support business strategy, business processes, and practical applications in an organization.              |
|    |          |   | Describe how the Internet and World Wide Web provide a global platform for e-business, business mobility and communications, collaboration, and cloud computing          |
|    |          |   | Express the proven value of, and relationship between business data, data management, and business intelligence  |
|    |          |   | Combine analytical thinking, creativity and business-problem-solving as applied to ongoing MIS challenges, future trends, and relevant case studies                      |
| 10 | 15BCTA02 | AOC I -E- Commerce                      | Define and differentiate various types of Ecommerce.   |
|    |          |   | Describe Hardware and Software Technologies for Ecommerce.   |
|    |          |   | Explain payment systems for E - commerce.  |
|    |          |   | Describe the process of Selling and Marketing on web.  |
| 11 | 15BCT401 | Core 6 – Computer Graphics & Multimedia | Understand the basics of computer graphics, different graphics systems and applications of computer graphics   |
|    |          |   | Discuss various algorithms for scan conversion and filling of basic objects and their comparative analysis   |
|    |          |   | Use of geometric transformations on graphics objects and their application in composite form.  |
|    |          |   | Extract scene with different clipping methods and its transformation to graphics display device.   |
| 12 | 15BCT402 | Core 7 – PC Hardware                    | Render projected objects to naturalize the scene in 2D view and use of illumination models for this  |
|    |          |   | Describe, remove, and replace select components of a laptop; upgrade components based on customer needs and perform preventive maintenance and advanced troubleshooting. |
|    |          |   | Explain, install, and navigate an operating system; upgrade components based on customer needs and perform preventive maintenance and advanced troubleshooting.          |
|    |          |   | Apply good communication skills and professional behavior while working with customers.  |
| 13 | 15BCT403 | Core 8 – Operating System               | upgrade security components based on customer needs and perform preventive maintenance and advanced troubleshooting.   |
|    |          |   | Describe, remove, and replace select components of a printer/scanner; perform preventive maintenance and troubleshooting   |
|    |          |   | Able to describe process management and concepts of threading, multitasking,IPC.   |
|    |          |   | Able to differentiation of various scheduling algorithms and identify the reasons of deadlock and their remedial measures in an operating system.                        |
| 14 | 15BCTP04 | Core Lab 4 - Multimedia Lab             | Able to describe various memory management techniques.   |
|    |          |   | Able to Analyze of disk scheduling algorithms for efficient utilization.   |
|    |          |   | Able to apply the concepts of operating system to study Linux.   |
|    |          |   | Know various multimedia software tools.  |
| 15 | 15BCTA03 | AOC II - Web Designing                  | Design multimedia software that are suitable to Internet applications.   |
|    |          |   | Design flash animations and Prepare multimedia advertisement and Edit image.   |
|    |          |   | 2D modeling and Implementation of illumination model for rendering 3D objects  |
|    |          |   | Concepts of 2D & 3D object representation and Implementation of various scan & clipping algorithms   |
| 16 | 15BCTA04 | AOC II-Embedded System                  | Understand the principles of creating an effective web page, including an in-depth consideration of information architecture.  |
|    |          |   | Develop skills in analyzing the usability of a web site.   |
|    |          |   | Learn the language of the web: HTML and CSS.   |
|    |          |   | Be able to embed social media content into web pages.  |
| 17 | 15BCT501 | Core 9 - . Net Framework                | To introduce the embedded Hardware and Interfacing.  |
|    |          |   | To make the students familiar with software development & tools for embedded systems.  |
|    |          |   | The objective of the course is to cover the Hardware Design, Software Development & RTOS for the Embedded Systems.   |
|    |          |   | Ability to use ANSI C to develop embedded software.  |
| 18 | 15BCT501 | Core 9 - . Net Framework                | Upon successful course completion the concepts of .NET framework   |
|    |          |   | The students able to create simple webapplications and window applications   |
|    |          |   | Able to connect database using ADO.NET in C#.NET   |

|    |          |                                |   |
|----|----------|--------------------------------|---|
|    |          |                                | To develop Assemblies and Deployment in .NET, Mobile Application Development  |
|    |          |                                | To understand and be able to explain Exception handling and Threads   |
| 18 | 15BCT502 | Core 10 – Computer Networks    | Describe the functions of each layer in OSI and TCP/IP model.   |
|    |          |                                | Explain the functions of Application layer and Presentation layer paradigms and Protocols.  |
|    |          |                                | Describe the Session layer design issues and Transport layer  |
|    |          |                                | Identify the various computer network protocol design models and the usage of various types of transmission media and working of LAN technology |
|    |          |                                | Familiarize the various wireless LAN concepts and the design of adhoc wireless network  |
|    |          |                                | Familiarize the various wireless LAN concepts and the design of adhoc wireless network  |
| 19 | 15BCT503 | Core 11 – Software Engineering | Able to understand the different process models and project management concepts   |
|    |          |                                | Able to develop skills for cost estimation for software development and understand the software risks.  |
|    |          |                                | Able to enhance teamwork ability in project scheduling and apply the concepts of software quality assurance                                     |
|    |          |                                | Able to relate and outline system engineering and product engineering process.  |
|    |          |                                | Able to apply requirement mapping strategies for development of software.   |
| 20 | 15BCT504 | Core 12 – RDBMS                | Understand, appreciate and effectively explain the underlying concepts of database technologies   |
|    |          |                                | Design and implement a database schema for a given problem-domain   |
|    |          |                                | Populate and query a database using SQL DML/DDDL commands   |
|    |          |                                | Declare and enforce integrity constraints on a database using a state-of-the-art RDBMS  |
|    |          |                                | To Know the concepts of SQL, PL/SQL, Triggers, cursors and Normalization  |
| 21 | 15BCTP05 | Core Lab 5 - Net Framework Lab | Able to understand the console application creation and its implementation  |
|    |          |                                | Describe how to upload the document file in our own directory   |
|    |          |                                | Demonstrate the basic DML Operations  |
|    |          |                                | Describe how to transact records in database  |
|    |          |                                | Illustrate how to generate a data report  |
| 22 | 15BCTE01 | Elective I : Software Agents   | Students can able to Design the architecture for an agent   |
|    |          |                                | Students can able to Design the agent in details in a view for the implementation   |
|    |          |                                | Students can able to Design typical agents using a tool for different types of applications   |
|    |          |                                | Able to understand the different types of agents.   |
|    |          |                                | Know about the tools.   |
| 23 | 15BCTE02 | Elective I : Mobile Computing  | Evaluate the architecture and principles of operation of computer systems and networks.   |
|    |          |                                | Design and develop software systems for various application domains.  |
|    |          |                                | Manage the development of software systems through a variety of development processes and methodologies.  |
|    |          |                                | Synthesize new knowledge in the field of computer science by using appropriate research methodologies.  |
|    |          |                                | Demonstrate the ability to design a system, component or process as per needs and specifications.   |
| 24 | 15BCTE03 | Elective I : Cloud Computing   | Defines the working of cloud computing and their pros and cons  |
|    |          |                                | Identifies centralising email communications and mapping schedule in projects   |
|    |          |                                | Explore collaboration of scheduling, planning and event management and contact management   |
|    |          |                                | Evaluate the web conference tools and how to create social networks   |
|    |          |                                | Describe about groupware  |
| 25 | 15BCT601 | Core 13 - PHP Programming      | Understand how server-side programming works on the web.  |
|    |          |                                | PHP Basic syntax for variable types and calculations.   |
|    |          |                                | Creating conditional structures   |
|    |          |                                | Storing data in arrays  |
|    |          |                                | Using PHP built-in functions and creating custom functions  |
|    |          |                                | Understanding POST and GET in form submission.  |

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| 26 | 15BCT602 | Core 14 – Information Security          | Understand the basic concepts of attacks, methods of defence and classification of hackers  |
|    |          |   | Demonstrate the basic cryptographic terms, data encryption standard, fundamentals concepts of DES   |
|    |          |   | Identifies different types of flaws, kinds of malicious code and prevention of virus infection  |
|    |          |   | Able to understand the file protection mechanisms, user authentication  |
|    |          |   | Describes the security requirements, ethical issues in computer security  |
| 27 | 15BCTP06 | Core Lab 6 - PHP Lab                    | Use HTML form elements that work with any server-side language  |
|    |          |   | Create a PHP web page that is unique to each visitor  |
|    |          |   | Validate user input   |
|    |          |   | Create, back up and restore a MySQL database  |
|    |          |   | Perform various MySQL database queries  |
| 28 | 15BCTE04 | Elective II : Distributed Computing     | Describes the characteristics of Distributed systems and their models   |
|    |          |   | Defines the interprocess communication and internetworking  |
|    |          |   | Identify the security issues in OS support and distributed file systems   |
|    |          |   | Identify the time and global states and coordination and agreement techniques   |
|    |          |   | Define detailly on distributed transactions   |
| 29 | 15BCTE05 | Elective II :Data Mining & Warehousing  | Describes basic data mining tasks, KDD process and various databases techniques   |
|    |          |   | Describes why to preprocess the data and the concept of data cleaning, integration  |
|    |          |   | Illustrate the social implications of Data Mining   |
|    |          |   | Able to understand the various classification of algorithms like distance, decision tree based, neural network algorithms   |
|    |          |   | Defines the clustering and association rules followed in data mining  |
| 30 | 15BCTE06 | Elective II :Artificial Intelligence    | Understand the AI branches and search process and their algorithms  |
|    |          |   | Describe various searching techniques   |
|    |          |   | Understand the knowledge representation issues  |
|    |          |   | Describes various learning procedures   |
|    |          |   | helps to deal with hidden variable  |
| 31 | 15BCTE07 | Elective III : Software Testing         | Defines expert systems and their architecture   |
|    |          |   | Have an ability to apply software testing knowledge and engineering methods.  |
|    |          |   | Have an ability to design and conduct a software test process for a software testing project.   |
|    |          |   | Have an ability to understand and identify various software testing problems, and solve these problems by designing and selecting software test models, criteria, strategies, and methods |
|    |          |   | Have an ability to design and conduct various types and levels of software testing for a software project.  |
| 32 | 15BCTE08 | Elective III :XML                       | Have basic understanding, knowledge of contemporary issues in software testing and test planning.   |
|    |          |   | Have an ability to identify the needs of software test automation, and define and develop a test tool to support test automation  |
|    |          |   | Expand the student understanding of the various application of XML  |
|    |          |   | Describes XML schema and DTD and their infra structures   |
|    |          |   | Able to implement the XML data model and access XML Databases   |
| 33 | 15BCTE09 | Elective III :Client / Server Computing | Demonstrates web services and SOAP concepts   |
|    |          |   | Understand the XML security framework, digital signature  |
|    |          |   | Understand the fundamental concept of web services including client server systems, system models, networks of distributed system   |
|    |          |   | Able to identify analyse and solve broadly defined problems   |
|    |          |   | Able to understand the multi tier client server computing   |
|    |          |   | Design and develop client server systems with better security and specifies how to perform optimally  |
|    |          |   | Can track and analyse advanced client server systems  |
|    |          |   | Can develop basic network code including sockets, streams for simple client server applications   |

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |   | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to  |
|  |                    |   | Attain the core value in their respective area to meet out the global competitive edge.   |
|  |                    |   | Apply and update their skills towards their employability, entrepreneurship and its sustainability.   |
|  |                    |   | Realize their responsibility towards the society centre through ethical, social and human values.   |
|  |                    |   | Recognize the opportunities towards their up gradation and professional development in all spheres.   |
|  |                    |   | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.   |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |   | After completion of the Programme the graduates will be able to   |
|  |                    |   | Apply the knowledge of Mathematics, logical thinking to analyze complex problems and real world problems to meet the needs of the society.  |
|  |                    |   | To formulate and develop modern mathematical ideas that provides a solid foundation for future learning.  |
|  |                    |   | Acquire a holistic professional carrier and opportunities to gain knowledge in Teaching Methodologies to create an environment that supports outstanding research.  |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                                | <b>Course Outcome</b>   |
| 1  | 15BMA101           | Core I- Trigonometry and Fourier series           | Trigonometric formulas and Understand the concept of Inverse Trigonometric functions<br>Understand the expansions of trigonometric functions and nature of Hyperbolic<br>To understand the Inverse Hyperbolic functions.<br>Analyse the Logarithm of complex quantities and to evaluate summation of series.<br>Apply Fourier series concepts to find its expansion of periodic functions and to analyse odd and even functions.<br>Analyze Half range Fourier series and interval.   |
| 2  | 15BMA102           | Core II-Calculus                                  | Understand the concepts of curvature and its types, to evaluate total differentiation and to verify Euler's theorem.<br>Analyse the types of integration.<br>Remember the Reduction formula and Evaluate the double, triple integral and its application.<br>Evaluate change of order of integration and change of variables.<br>Apply the concept of Beta, Gamma functions and analyze its properties to evaluate multiple integrals.  |
| 3  | 18BMAID1           | Allied I- Mathematical Statistics-I               | Understand the concepts of random variables, its types, probability distributions and to Analyze Measures of Central Tendency<br>Apply joint probability mass function, two dimensional distributions, its types Mathematical Expectations and analyze the theorems based on mathematical expectations<br>Remember moment generating functions, properties, and analyze the uniqueness theorem of Moment Generating Functions, Chebychev's Inequality and Weak Law of Large Numbers.<br>Analyze the correlation and regression co-efficient, properties and its types<br>Apply the concept of Discrete and continuous probability distributions |
| 4  | 18BMA201           | Core III- Analytical Geometry and Vector Calculus | Understand the concepts of Analytical Geometry of 2D-Polar Co-ordinates<br>To understand and analyze the concepts of Analytical Geometry 3D- Straight lines<br>To apply the concepts and results based on the properties of sphere.<br>To understand and analyze the concepts of Cone and Cylinder<br>Apply the concept of Vector Calculus and Integration of vectors.  |
| 5  | 16BMA202           | Core 4: Classical Algebra                         | Understand the concept of Binomial Theorem and its application to the Summation of Series<br>Understand the concept of Exponential Theorems and its application to the Summation of Series<br>Analyse the concepts of Logarithmic Series<br>Examine the convergence and Divergence of sequences and series.<br>Examine the Absolute Convergence, Cauchy's condensation test and Raabe's test  |
| 6  | 18BMAID2           | IDC 2:Mathematical Statistics-II                  | To analyze Chi-square, t and F test.<br>Understand the concept of Population and characteristics of Estimators.<br>Understand the concepts of testing of Hypothesis and Likelihood Ratio Test.<br>Analyse the concepts of Method of Estimation and Method of Least Square.<br>Examine the Analysis of Variance.   |
| 7  | 15BMA301           | Core 5 :Statics                                   | To understand the concept of forces, resultant forces of more than one force acting on a surface<br>To apply the concept of friction, gravity, centre of mass, and centroid<br>To acquire knowledge about the parallelogram of forces, Triangle of forces, varignons theorem of moments   |



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|    |          |  | To find the resultant of coplanar couples equilibrium of couples and the equation to the line of action of the resultant                             |
|    |          |  | To understand the concept of equilibrium of strings and to derive the tension at any point   |
|    |          |  | To discuss the geometrical properties of a catenary  |
| 8  | 15BMA302 | Core 6:Differential Equations and Laplace Transforms             | To examine the general, particular and complete solution of differential 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  |
|    |          |  | To understand and apply the concept of Laplace transforms and inverse Laplace transforms   |
| 9  | 15BMAA01 | AOC I :Operations Research –I                                    | To create the formulation of LPP and to evaluate various methods of LPP namely Graphical method, Simplex method and Big-M method                     |
|    |          |  | To understand and apply the concept of duality   |
|    |          |  | To understand and apply the methods of transportation  |
|    |          |  | To solve the assignment problems and travelling salesmen problem   |
|    |          |  | To analyze the concept of game theory and its methods  |
| 10 | 15BMAA02 | Mathematical Modeling  | To understand and apply the concepts of Mathematical Modeling relating to linear and Non-linear Growth 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 Satellites.   |
|    |          |  | 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.  |
| 11 | 16BMA401 | Core 7 :Dynamics   | To understand and apply the concepts of kinematics and kinetics  |
|    |          |  | To understand the basic terms for the description of the motion of particles vector functions and fundamental laws                                   |
|    |          |  | To solve dynamical problems in one dimension that involve one or more of the forces of gravity and friction  |
|    |          |  | To understand and apply the concept of the path of the projectile and its characteristics  |
|    |          |  | To understand simple harmonic motion and its related geometrical representation  |
|    |          |  | To understand and apply the principle of central orbit   |
| 12 | 15BMA402 | Core 8: Fourier Transforms, z Transforms and Theory of equations | To understand the direct and oblique impact of smooth elastic spheres and its related loss of kinetic energy   |
|    |          |  | 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.  |
|    |          |  | To know about Theory of equations, Transformation of equations and formation of equations.   |
| 13 | 15BMAA03 | AOC II: Operations Research-II                                   | To understand symmetric function of roots, Sum of the powers of the roots of an equation, Newton's theorem, Reciprocal equation and Horner's Method. |
|    |          |  | Co1: To formulate and solve decision analysis problems   |
|    |          |  | To solve sequencing problems and plan accordingly  |
|    |          |  | To acquire knowledge about replacement problems to find the optimal replacement period   |
|    |          |  | To construct the network for a project to study the system and to take better decision   |
| 14 | 15BMAA04 | AOC II: Fuzzy logic and Neural Networks                          | To apply Queuing theory concepts to take optimal decision  |
|    |          |  | To understanding the concepts of Fuzzy set theory and its basic operations.  |
|    |          |  | To acquire knowledge about Fuzzy systems, Fuzzy logic, quantifiers and inference concepts.   |
|    |          |  | To understand the concepts of Fuzzy Associate members..  |
|    |          |  | To acquire knowledge about covering and compact subsets of a Metric space  |
| 15 | 15BMA501 | Core 9 : Real Analysis-I   | To apply the back propagation networks to create the perception model.   |
|    |          |  | 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 Bolzano Weierstrass and Cantor Intersection theorem.                               |
|    |          |  | To acquire knowledge about covering and compact subsets of a Metric space  |
|    |          |  | To understand the concept of Cauchy sequence and complete spaces   |

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| 16 | 15BMA502 | Core 10:Complex Analysis-I          | 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 analyze the convergence of power series   |
|    |          |                                     | To determine the harmonic function and map the functions in complex plane                                  |
|    |          |                                     | To evaluate the integral of complex functions  |
| 17 | 15BMA503 | Core 11: Modern Algebra-I           | 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 of rings |
|    |          |                                     | To analyze the concept of sylow's theorem and direct products  |
| 18 | 15BMA504 | Core 12: Programming in C           | 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   |
|    |          |                                     | Will learn about the concept of arrays, strings and string handling functions                              |
|    |          |                                     | To apply pointer concepts using arrays   |
| 19 | 15BMAE01 | Core 13: Programming in C-Practical | 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.                              |
|    |          |                                     | To develop a program to generate Pascal's Triangle.  |
|    |          |                                     | To develop a program to sort a given set of numbers  |
|    |          |                                     | To develop a program to find the sum of the digits of a given number.                                      |
|    |          |                                     | To develop a program to sort a given set of names.   |
|    |          |                                     | To develop a program to find the product of two given matrices.  |
|    |          |                                     | To develop a program to prepare pay list for a given data.   |
|    |          |                                     | To develop a program to find the factorial of a given number using pointer's.                              |
| 20 | 15BMAE01 | Elective I: Astronomy-I             | To gain knowledge about solar system and spherical trigonometry  |
|    |          |                                     | To know about celestial sphere   |
|    |          |                                     | To understand the concepts of Dip, Twilight and Geometric Parallax   |
|    |          |                                     | To apply refraction tangent and Cassini's formulas   |
|    |          |                                     | To learn Kepler's laws and relation between true eccentric and mean anomalies                              |
| 21 | 15BMAE02 | Elective I: Numerical Methods-I     | To solve algebraic and transcendental equation   |
|    |          |                                     | To find the solution of system of linear algebraic equations   |
|    |          |                                     | To understand and apply the concept of finite differences  |
|    |          |                                     | To identify the problems in interpolation with equal and unequal intervals and solve it                    |
|    |          |                                     | To analyse the relation between divided differences and forward differences                                |
| 22 | 15BMAE03 | Elective I: Quantitative Aptitude-I | 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 Partnership.                    |
|    |          |                                     | To solve problems in Time and Work, Surds and Indices, Square roots and Cube roots.                        |
|    |          |                                     | To solve problems in Alligation of Mixture, Average, Area and Odd Man Out Series.                          |
|    |          |                                     | To solve problems in Permutation, Combinations and Problems on Ages.                                       |
| 23 | 15BMA601 | 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 differentiability of real functions and related theorems                                      |
|    |          |                                     | To acquire knowledge about the functions of bounded variations   |

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|    |          |  | To apply the notations definitions and properties of Riemann Stieltjes integral                                      |
| 24 | 15BMA602 | Core 15:Complex Analysis-II            | Expand complex functions in Taylor's and Laurent's series  |
|    |          |  | To cauchy 's liouville's and morera's theorem to evaluate complex integrals  |
|    |          |  | Find the singularities and residues of complex functions   |
|    |          |  | Evaluate the definite integrals using cauchy's theorem.  |
|    |          |  | Understand meromorphic function and use of fundamental theorem of algebra  |
| 25 | 15BMA603 | Core 16 : Modern Algebra-II            | Co1: To understand the matrix concepts in real life problems   |
|    |          |  | Co2: Verify Cayley's Hamilton theorem for a square matrix  |
|    |          |  | Understand the concept of vector space , homomorphisms and isomorphisms  |
|    |          |  | Explain the concept of dual space , inner product vector space and orthogonal vector space                           |
|    |          |  | Illustrate the linear transformation and determine the charecteristic roots and vectors                              |
| 26 | 15BMA604 | Core 17 :Discrete Mathematics          | To understand and analyze the concept of mahematical logic and solve the problems for tautology and its 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                               |
|    |          |  | To understand lattices, boolean algebra and boolean functions  |
|    |          |  | To understand the concept of formal languages, grammer , FSA and apply its concepts                                  |
| 27 | 15BMAE04 | Elective II : Astronomy II             | To gain knowledge about Time,equation of time ,conversion 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.   |
|    |          |  | To learn about the Planetary Phenomenon and the Stellar system.  |
| 28 | 15BMAE05 | Elective II : Numerical Methods-II     | To analyse the problems in numerical differentiation   |
|    |          |  | To analyse the problems in numerical integration   |
|    |          |  | To understand and apply the concepts of differece equations  |
|    |          |  | To evaluate Taylor series,Eulers method,Improved, Modified Euler method and RK method of fourth order                |
|    |          |  | To examine the numerical solution of first order ODE   |
| 29 | 15BMAE06 | Elective II :Quantitative Aptitude –II | 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.              |
|    |          |  | To solve problems in Time and Distance ,Trains ,Boats and Streams.   |
|    |          |  | To solve problems in Clocks,Area of Plane figure,Volume and Surface area of solid figures.                           |
|    |          |  | To solve problems in Data interpretation and data sufficiency  |
| 30 | 15BMAE07 | Elective III :Automata Theory          | To understand and apply the concepts of Finite State Automata concepts.  |
|    |          |  | To analyse the problems in Closure ,regular set,Expressions and Languages.   |
|    |          |  | To apply the produre for converting NFA to DFA and equivalent regular expressions.                                   |
|    |          |  | To illustrate the problems in Grammer and its types.   |
|    |          |  | :To understand the concepts of push down automata and relation between PDA and Context free languages.               |
| 31 | 15BMAE08 | Elective III :Graph Theory             | To understand the concepts of graph and the basic theorems on graph theory   |
|    |          |  | To learn about the aplication graph theory in network and other related areas  |
|    |          |  | To understand the concept of tree and their properties   |
|    |          |  | To examine the various isotopes with the help tree concepts  |
|    |          |  | To examine the relationship between algebra and graph and analyze algebraic graph structures                         |
|    |          |  | To study about the conversion of graph structures into matrix and their properties                                   |
| 32 | 17BMAE09 | Elective III :Programming in C++       | 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 .                            |

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|    |          |   | Will learn about the concept of Operator Overloading ,Inheritance and its types.  |
|    |          |   | To apply Managing Console I/O operations and to know about Streams and Classes.   |
| 33 | 17BMAP02 | Elective III:Programming in C++-Practical | 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.   |
|    |          |   | To develop a program to find the Area of a Circle,Square and Rectangle using Function Overloading.                      |
|    |          |   | To develop a program to display the Employee Details.   |
| 34 | 14BMAAC1 | ACC:Vedic Mathematics                     | To learn short cuts in Squaring ,multiplication of numbers.   |
|    |          |   | To acquire knowledge about Criss -Cross Multiplication ,Square root and Cube roots.                                     |
|    |          |   | To understand and apply the concepts of Base method of multiplication .   |
|    |          |   | Will learn about the concept of Digit sum method,Magic squares ,Dates and calender problems,general,linear equations.   |
|    |          |   | To understand and apply Zeller's rule , square root for imperfect squares , cubing numbers and Base method of division. |
| 35 | 16BMAAC2 | ACC:Latex                                 | To learn about the basic structure of Latex   |
|    |          |   | To understand the commands of single character symbols and the environments   |
|    |          |   | to learn the document layout and their styles   |
|    |          |   | To learn the commands of generating tables and foot notes   |
|    |          |   | To learn the mathematical commands of mathematical symbol and mathematical environments                                 |

**B.Sc (COSTUME DESIGN AND FASHION)**

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |  | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to   |
|  |                    |  | Attain the core value in their respective area to meet out the global competitive edge.  |
|  |                    |  | Apply and update their skills towards their employability, entrepreneurship and its sustainability.  |
|  |                    |  | Realize their responsibility towards the society centre through ethical, social and human values.  |
|  |                    |  | Recognize the opportunities towards their up gradation and professional development in all spheres.  |
|  |                    |  | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |  | After completion of the Programme the graduates will be able to  |
|  |                    |  | Procreate exhaustive, conception merchandise avail oneself of their break through knowledge of new technology and traditional craft. Capability to promote their artistic personal design perception |
|  |                    |  | Identify problems, assume challenges and conceptualize solutions in extant fashion schemes   |
|  |                    |  | Conspire across restraint as a team leader, efficient member, ingenious designer, aesthetics and creativity.   |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                       | <b>Course Outcome</b>  |
| 1  | 17CDF101           | Basics of Apparel Designing              | The students gained knowledge on parts and functions of sewing machines and different types seams and seam finishes.   |
|  |                    |  | The students understands about fullness,facing and binding   |
|  |                    |  | The students gained knowledge on plackets and method of fastners   |
|  |                    |  | The students acquired knowledge on sleeves and yokes.  |
|  |                    |  | The students gained knowledge on types of collers and pockets.   |
| 2  | 16CDFP01           | Basics of Apparel Designing - Practicals | The students learnt the technique on joining two pieces of fabric using seam.  |
|  |                    |  | The students understands the technique on how to prevent fabric from ravelling through seam finishes   |
|  |                    |  | The students understads about the techniques of neck finishes using facing and binding.  |
|  |                    |  | The students understands to create yoke for decorative purpose.  |
| 3  | 16CDF102           | Fundamentals of Pattern Making           | The students will be good enough in taking measurement.  |
|  |                    |  | The students will be well trained in pattern preparation.  |
|  |                    |  | The students will be through in checking the fitting of blouse.  |
|  |                    |  | The students are good in pattern grading.  |
|  |                    |  | The students are good in layout preparation.   |

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| 4  | 16CDFID1 | Illustration Technique - Practicals     | The students gained the knowledge on basic drawing techniques using lines and motifs.  |
|    |          |   | The students acquired the knowledge on fashion figure drawing through stick figure.  |
|    |          |   | The Students learnt on diving the figure into various parts and practicing the art of creating textures.                         |
|    |          |   | The students gained the knowledge on drawing pattern details in the garments and ornaments and accessories designing             |
| 5  | 16CDFP02 | Customer Oriented Sketching- Practicals | The students gained knowledge on portrait drawing skill  |
|    |          |   | The students acquired creative skills on drawing casual wear party wear and sports wear for men,women,children.                  |
|    |          |   | The students acquired knowledge on drawing stylized men,women,children figures using 10 and 12 head theories.                    |
|    |          |   | The students learnt on illustrating garments for different seasons like summer,winter,autumn and spring for men,women, children. |
| 6  | 16CDFP03 | Kids Garment Production - Practicals    | The students gained the practical knowledge on constructing Bib, jabla.  |
|    |          |   | The students gained the practical knowledge on constructing baba suit  |
|    |          |   | The students gained the practical knowledge on constructing A-line petticoat   |
|    |          |   | The students gained the practical knowledge on constructing summer frock, yoke frock, shirt.                                     |
| 7  | 16CDF201 | Finished Textiles Maintenance           | The students acquired knowledge on differentiating water, soap and detergent manufacturing                                       |
|    |          |   | The students gained knowledge on stiffening agents and its application   |
|    |          |   | The students acquired knowledge on laundry equipment , drying equipment and Ironing.   |
|    |          |   | The students understands the principles of washing,laundering for different fabrics.   |
| 8  | 16CDFID2 | Sewing Operation System                 | The students acquired knowledge on special types of laundry, stain removing and care labels.                                     |
|    |          |   | The students gained a clear knowledge in the machine used in the textile industry  |
|    |          |   | The students learnt about accessories and repairing of sewing machine.   |
|    |          |   | The students understood the cutting mechanism and machines used.   |
| 9  | 16CDF301 | Indian Historic Costumes and Textiles   | The students gained the knowledge on marking planning and pressing.  |
|    |          |   | The students acquired knowledge in analysing sewing threads.   |
|    |          |   | The students gained the knowledge on origin of costume and history of Indian costumes and textiles.                              |
|    |          |   | The students acquired knowledge on north Indian costumes.  |
| 10 | 16CDF302 | Fashion Art                             | The students understands costumes and jewelry of south India.  |
|    |          |   | The students gained knowledge on north Indian jewellery  |
|    |          |   | The students understands the traditional embroideries of India.  |
|    |          |   | The students understands the elements of design and application of structural and decorative design                              |
| 11 | 16CDFP04 | Fashion Art- Practicals                 | The students understands the principles of design and application of principles on the garment                                   |
|    |          |   | The students gained knowledge on fashion terminology and theories of fashion adoption.   |
|    |          |   | The students learnt on colour theories and standard colour harmonies.  |
|    |          |   | The students understand the concept on designing dressing for unusual figures and fashion accessories.                           |
| 12 | 16CDF303 | Fiber to Fabric                         | The students gained knowledge on prang colour chart  |
|    |          |   | The students learnt to illustrate elements of design in a garment  |
|    |          |   | The students learnt to illustrate principles of design in a garment  |
|    |          |   | The students understands the usage of colours in a garment   |
| 13 | 16CDFP05 | Fiber to Fabric- Practicals             | The students learnt on designing madeups   |
|    |          |   | The students gained ample of information on spinning and process flow in spinning mills.   |
|    |          |   | The students understands the fiber and its classifications   |
|    |          |   | The students gained knowledge on yarn formation.   |
|    |          |   | The students understands various types of weave patterns.  |
|    |          |   | The students acquired knowledge on non-wovens.   |
|    |          |   | The students understands to identify natural and man made fibers through microscopic method                                      |
|    |          |   | The students understands to identify natural and man made fibers through flame test  |
|    |          |   | The students understands to identify natural and man made fibers through chemical test.  |

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|    |          |   | The students gained the knowledge on fabric count by raveling and pickglass method.   |
| 14 | 16CDFID3 | Fashion and Clothing Psychology         | <p>The students acquired knowledge on factors influencing fashion changes.</p> <p>The students gained the knowledge on fashion cycles, fashion terminologies, forecasting and fashion services and resources.</p> <p>The students gained the knowledge on visual merchandising, merchandising presentation and fashion shows.</p> <p>The students understand on Indian fashion designers.</p> <p>The students acquired knowledge on world fashion centres and more information on fashion week.</p> |
| 15 | 16CDFS01 | Basic Draping- Practicals               | <p>The students understand on draping and dressing forms</p> <p>The students gained knowledge on draping basic front and back</p> <p>The students understand on draping basic skirts.</p> <p>The students acquired knowledge on draping different types of collar.</p>  |
| 16 | 17CDFS02 | Interior Designing - Practicals         | <p>The students understand on home interior and decoration through principles of design and by 2D and 3D</p> <p>The students gained knowledge on application of colour wheel in interior design.</p> <p>The students gained knowledge on application of design drawing and graphics in office.</p> <p>The students acquired knowledge on application of furnishings and arrangements in living room.</p>  |
| 17 | 16CDFED1 | Basics of Photography                   | <p>The students gained the knowledge on fundamentals of photography</p> <p>The students acquired knowledge on types of camera and its functions</p> <p>The students understand on sources of light, kinds of filter and colour photography.</p>   |
| 18 | 16CDF401 | Fabric Structure and Design             | <p>The students gained ample of information about weaving and weaving unit.</p> <p>The students understand the various types of weaving patterns.</p> <p>The students acquired knowledge on intricate designed weave patterns</p> <p>The students gained information on pile fabrics.</p> <p>The students gained knowledge on double cloth weaving and stitching.</p>   |
| 19 | 16CDFP07 | Fabric Structure and Design- Practicals | <p>The students gained the knowledge on analysing plain weave and its derivatives</p> <p>The students gained the knowledge on analysing twill weave and its derivatives</p> <p>The students gained the knowledge on analysing satin weave</p> <p>The students gained the knowledge on analysing sateen weave</p>  |
| 20 | 16CDF402 | Textile Processing                      | <p>The students gained knowledge in processing of fabric</p> <p>The students acquired knowledge on dyes and its classifications</p> <p>The students understand the types of dyeing methods and machines.</p> <p>The students gained various types of aesthetic finishes to the fabric.</p> <p>The students gained knowledge on printing and its methods.</p>  |
| 21 | 16CDFP08 | Textile Processing- Practicals          | <p>The students acquired knowledge on preparing samples for textile processing</p> <p>The students acquired knowledge on preparing samples for different types of dyeing</p> <p>The students acquired knowledge on preparing samples for various methods of printing</p> <p>The students acquired knowledge on preparing samples for processing of fabric</p>   |
| 22 | 16CDFP06 | Women's Garments Production- Practicals | <p>The students gained the practical knowledge on constructing saree petticoat</p> <p>The students gained the practical knowledge on constructing skirts</p> <p>The students gained the practical knowledge on constructing saree blouse</p> <p>The students gained the practical knowledge on constructing midi top</p>  |
| 23 | 16CDFID4 | Surface Embellishments- Practicals      | <p>The students acquired the skill on doing basic embroidery stitches.</p> <p>The students acquired the skill on doing basic machine embroidery stitches.</p> <p>The students gained the knowledge on practicing traditional embroidery stitches.</p> <p>The students acquired the skill on practicing applique work</p>  |
| 24 | 16CDFAO3 | Garment Quality and Cost Control        | <p>The students gained the knowledge on quality control and standards in the textile industry.</p> <p>The students acquired the knowledge on various specifications, training the quality control personnel, government contacts, packaging and warehousing in the garment industry.</p>  |

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| 24 | 16CDF003 | Garment Quality and Cost Control     | The Students gained the knowledge on various functions of production control.<br>The students understands the types of control forms.  |
| 25 | 16CDFA04 | Beauty Care                          | The students learnt the skill on bleaching<br>The students learnt the skill on herbal facial<br>The students learnt the skill on threading<br>The students learnt the skill on waxing  |
| 26 | 18CDF501 | Visual Merchandising                 | The students learnt on visual merchandising,presentation and garment display<br>The students gained knowledge on store design, mannequins and fixtures for selection.<br>The students understands the store exterior and interior planning and trade organization sources.<br>The students acquired knowledge on display techniques, planning, Creativity in show room displaying<br>The students acquired knowledge on different approches in visual merchandising,information technology,safety factors. |
| 27 | 16CDF502 | Computers in the Garment Industry    | The students gained the knowledge on computers in fashion industry<br>The students acquired the knowledge on pattern making and grading using computers.<br>The students learnt on textile desinging<br>The students acquired knowledge on 2D and 3D forms<br>The students gained knowledge on application of computers in apparel manufacturing industry.   |
| 28 | 16CDFP09 | Men's Garment Production- Practicals | The students gained the practical knowledge on constructing S.B.Vest and T-Shirt<br>The students gained the practical knowledge on constructing Slack Shirt and Full sleeve shirt<br>The students gained the practical knowledge on constructing Kalidhar kurtha<br>The students gained the practical knowledge on constructing Pleated pant and House Coat.   |
| 29 | 16CDFP10 | Computer aided design- I             | The students gained the knowledge on designing motif,embroidery design, chest prints for T-shirt using coral draw software.<br>The students gained the knowledge on designing children's, women's and men'sgarments using coral draw software.<br>The students gained the knowledge on designing logs and care labels for branded companies using coral draw software.<br>The students gained the knowledge on preparing production planning and scheduling using coral draw software.                     |
| 30 | 18CDFE01 | Elective I-Functional Clothing       | The students gained the knowledge on technical textiles its types and application<br>The students get the knowledge on medical textiles<br>The students get the knowledge on protective textiles<br>The students get the knowledge on sport wear and how textiles plays an vital role<br>The students get the knowledge on smart and innovative textiles.  |
| 31 | 18CDFE02 | Elective I- Fashion Promotion        | The students understands about the fashion communication and function of fashion clothing<br>The students learnt about the fashion and society which leads to social issues and factors.<br>The students understands about the types of advertising used in fashion promotion.<br>The students acquired knowledge on media as a whole and its budgeting and advertising.<br>The students acquired knowledge on fashion product development.  |
| 32 | 18CDFE03 | Elective I- Home Furnishings         | The students understands the textile finishing and types of furnishing materials.<br>The students understands about the window and door treatments on draperies.<br>The students understands about the interior designing on living room and wall covering<br>The students understands on bed and bath linen and its types.<br>The students understands about the kitchen and table linen and its cleaning materials.  |
| 33 | 16CDF601 | Fundamental of Knitting              | The students acquired knowledge on types of knitting process<br>The students understands the knitting elements , advantages and disadvantages.<br>The students acquired knowledge on weft knitting classification and its properties.<br>The students acquired knowledge on warp knitting classification and its properties.<br>The students understands about the knitted fabric detects and its care and maintenance.  |
|    |          |                                      | The students acquired the knowledge on identifying single jersey and double jersey fabrics knitted fabrics   |

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| 34 | 16CDFP12 | Fundamental of Knitting- Practicals              | The students acquired the knowledge on identifying rib and interlock fabric of knitted fabrics                          |
|    |          |  | The students acquired the knowledge on identifying different types of warp knitted fabrics                              |
|    |          |  | The students acquired the knowledge on analysing the defects on the knitted fabric.                                     |
| 35 | 16CDFP11 | Computer Aided Design-II- Practicals             | The students acquired knowledge on designing garments and application of colour harmony in the garment                  |
|    |          |  | The students learnt to design garments on principles of design  |
|    |          |  | The students learnt to design garment for men,women,children for various occasions and seasons                          |
| 36 | 16CDFE04 | Elective II- Apparel Marketing                   | The students acquired knowledge on preparing different types of patterns , pattern garding and photo editing.           |
|    |          |  | The students understand the concept of fashion marketing  |
|    |          |  | The students acquired the knowledge on marketing functions and fashion industry for new product development             |
| 37 | 16CDFE05 | Elective II- Apparel Production Management       | The students gained knowledge on fashion advertising  |
|    |          |  | The students understands the fashion sales promotion in the apparel marketing   |
|    |          |  | The students learnt to develop marketing strategies for apparel product and methods of setting prices.                  |
| 38 | 18CDFE06 | Elective II- Fashion Merchandising and Marketing | The students obtained the knowledge on nature and scope of management.  |
|    |          |  | The students understands the concept on planning,decision making and problem solving                                    |
|    |          |  | The students obtain knowledge on organizing and performance appraisal.  |
| 39 | 16CDFE07 | Elective II- Organization of Garment Unit        | The students understand the concept managerial qualities like motivating,organizing and communicating.                  |
|    |          |  | The students understand about production control in accord with apparel marketing                                       |
|    |          |  | The students gained knowledge on merchandising terminologies.   |
| 40 | 16CDFE08 | Elective II- Export Analysis and Documentation   | The students acquair knowledge on functions of merchandising  |
|    |          |  | The students gained knowledge on costing in apparel industry  |
|    |          |  | The students learnedon how to analyse consumer  |
| 41 | 16CDFE09 | Elective II- Apparel Quality Management          | The acquire the knowledge on product development, customer profiles and product life cycles.                            |
|    |          |  | The students acquire knowledge to become a entrepreneur   |
|    |          |  | The students aware of the financial assistance agencies   |
| 42 | 16CDFPR3 | PROJECT - Fashion Port Folio Presentation        | The students get a knowledge in organizing a different depart.  |
|    |          |  | The student get a knowledge in frame the layout of the company  |
|    |          |  | The students aware of the documents for the export and payment.   |
|    |          |  | The students gained knowledge on cost estimation of yarns , fabrics and their finishes                                  |
|    |          |  | The students learnt on apparel export promotion   |
|    |          |  | The students acquire knowledge on document related to goods.  |
|    |          |  | The students gained knowledge on import license.  |
|    |          |  | The students gained knowledge on pre shipment inspection and quality control.   |
|    |          |  | The students obtained the knowledge on quality testing and standard quality parameters                                  |
|    |          |  | The students obtained the knowledge on raw material inspection and their advantages.                                    |
|    |          |  | The students acquire knowledge on the principles of total quality management and their application in garment industry. |
|    |          |  | The students understand the ISO 9001:2000 quality system manual for garment industry.                                   |
|    |          |  | The students understands the documented procedures required for ISO 9001:2000 and their implementation                  |
|    |          |  | The students acquired knowledge on portfolio development and presentation technique.                                    |
|    |          |  | The students acquired knowledge on designing garments for season and occasion   |
|    |          |  | The students understands the concept of prepararing mood board,story board, colour board.                               |
|    |          |  | The students learnt on preparing fabric board   |
|    |          |  | The students understands the concept on design development  |
|    |          |  | The students understands how to present their finished garment.   |
|    |          |  | The students learn on presenting the garments as per themes and occasions.  |
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**B.Sc (ELECTRONICS AND COMMUNICATION SYSTEMS)**

| <b>PROGRAMME OUTCOME (PO):</b>           |             |   | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to                            |
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|  |             |   | Attain the core value in their respective area to meet out the global competitive edge.   |
|  |             |   | Apply and update their skills towards their employability, entrepreneurship and its sustainability.   |
|  |             |   | Realize their responsibility towards the society centre through ethical, social and human values.   |
|  |             |   | Recognize the opportunities towards their up gradation and professional development in all spheres.   |
|  |             |   | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.   |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |             |   | After the completion of the under graduate programme in Bachelor of Science in Electronics and Communication Systems, the graduates will be able to |
|  |             |   | Apply the knowledge of Science, mathematics and fundamentals to solve problems in the domain of Electronics and communication field.                |
|  |             |   | Apply knowledge of Electronics and Communication principles in multidisciplinary environment and projects.  |
|  |             |   | Apply professional and ethical principles and function with responsibility.   |
| S.No                                     | Course Code | Course Name                                 | Course Outcome  |
| 1  | 15BES101    | Core 1- Basic Electronics                   | Understand the concept of passive components and connectivity's   |
|  |             |   | Analyze the important laws in circuits and Network Theorems   |
|  |             |   | Study about the important terms of Alternating current and resonance circuits   |
|  |             |   | Understand the concept of conductor, semiconductor and insulator, operation and characteristics of diode and transistor                             |
|  |             |   | study about special purpose diodes & its characteristics  |
| 2  | 18BESP01    | Core Practical 1 – Basic Electronics        | Analyze the rectifier circuits & other circuits   |
|  |             |   | Measure the parameters of the given resistors and capacitors.   |
|  |             |   | verification of law's and theorem's   |
|  |             |   | Realize the given performance using clipping and clamping circuits  |
|  |             |   | Design various rectifier circuits   |
| 3  | 15BES201    | Core 2- Electronic Circuits                 | Synthesize and evaluate Regulated power supply  |
|  |             |   | Understand the current voltage characteristics of semiconductor devices,  |
|  |             |   | Analyze dc circuits and relate ac models of semiconductor devices with their physical Operation,  |
|  |             |   | Design and analyze of electronic circuits,  |
|  |             |   | Evaluate frequency response to understand behavior of Electronics circuits.   |
| 4  | 18BESP02    | Core Practical 2- Electronic Circuits       | Design the different oscillator circuits for various frequencies  |
|  |             |   | Measure the parameters of the given transistor  |
|  |             |   | Design amplifier circuits   |
|  |             |   | measure the frequency of various oscillator circuits  |
|  |             |   | Analyse RC circuits for low pass and high pass filtering  |
| 5  | 15BES301    | Core 3- Principles of Communication Systems | Design Bistable, Monostable and Astable Multivibrators using discrete components.   |
|  |             |   | Use of different modulation and demodulation techniques used in analog communication  |
|  |             |   | Identify and solve basic communication problems   |
|  |             |   | Analyze transmitter and receiver circuits   |
|  |             |   | Compare and contrast design issues, advantages, disadvantages and limitations of analog communication systems                                       |
| 6  | 15BES302    | Core 4- Biomedical Instrumentation          | Understand the concept of bioelectric signals   |
|  |             |   | analyze the concept of electrodes and transducers   |
|  |             |   | To learn about Biomedical recording and patient monitoring system   |
|  |             |   | Implement diagnostic and therapeutic equipments   |
|  |             |   | Identify Advancements in medical instrumentation  |
|  |             |   | verify Basic gates and universal gates  |

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| 7  | 18BES303 | Core 5- Digital Electronics  | Design and Simulate adder and subtractor digital circuits<br>Analyze the mux , demux and encoder , decoder circuits<br>Implement and test simple digital circuits  |
| 8  | 18BESP03 | Core Practical 3- Digital Electronics and Biomedical Instrumentation | verify Basic gates and universal gates<br>Design and Simulate adder and subtractor digital circuits<br>Analyze the mux , demux and encoder , decoder circuits<br>Implement and test simple digital circuits<br>define basic medical terms and physical values that can be handled by medical instrumentation,<br>describe methods and implementation of electrical and nonelectrical medical parameters diagnostic   |
| 9  | 18BESID3 | IDC 3 – Programming using C  | Understand the fundamentals of C programming.<br>Choose the loops and decision making statements to solve the problem.<br>Implement different Operations on arrays.<br>Use functions to solve the given problem.<br>Implement file Operations in C programming for a given application   |
| 10 | 15BESAO1 | AOC I –Printed Circuit Board and Fabrication/Visual programming      | Understand the Types of PCB and layout<br>Analyze layout parameters and artwork<br>Design laminates and photo printing<br>Analyze and design etching and soldering<br>Analyze and design rules and automation  |
| 11 | 15BESAO2 | Visual programming   | Students list the visual programming concepts.<br>Explain basic concepts and definitions.<br>Express constants and arithmetic operations.<br>Distinguish variable and data types.<br>Students code visual programs by using Visual Basic work environment.   |
| 12 | 18BES401 | Core 6 – Digital Communication                                       | Acquire knowledge about fundamental concepts of communication systems<br>Understand the concepts of information theory<br>Design the sampling and quantizing method<br>Apply the knowledge of multiplexing concepts<br>Apply the knowledge of fiber optic communication  |
| 13 | 18BES402 | Core 7- 8085 Microprocessor and its Interfacing                      | Understand the concepts of microcomputer and microprocessors and internal architecture of 8086 microprocessor.<br>Write and implement efficient structured assembly language programs to solve the problems using 8085 microprocessor.<br>Understand the concepts of 8085 microprocessor interrupts<br>Write and implement programs to interface the 8085Microprocessor with Analog and Digital devices.<br>Understand motherboard circuitry and programmable peripheral devices such as 8054, 8259, 8251, RS232C, DMA controller. |
| 14 | 15BES403 | Core 8- Integrated Circuits and Instrumentation                      | Acquire knowledge about fundamental concepts and techniques used in power electronics.<br>Ability to analyze various single phase and three phase power converter circuits and understand their applications<br>Foster ability to identify basic requirements for power electronics based design application<br>To develop skills to build, and troubleshoot power electronics circuits.<br>Foster ability to understand the use of power converters in commercial and industrial applications.                                    |
| 15 | 18BESP04 | Core Practical 4- Microprocessor and its Interfacing                 | Provide practical hands-on experience with microprocessor applications and interfacing techniques.<br>Understand 8085 microprocessor kit, knowledge of 8085 instruction set and ability to utilize it in assembly language programming.<br>Understand real mode Memory addressing and ability to interface various devices to the microprocessor.<br>To familiarize with the assembly level programming  |
| 16 | 18BESID4 | IDC 4 - C Programming Practical                                      | To do programming in C language .<br>To write diversified solutions using C language This lab develop logical and analytical skill of students in programming.   |

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| 16 | 15BESAO3 | PLC & C Programming I                                       | <p>This helps to understand different type of functions and String manipulation</p> <p>To be able to Define an object oriented approach to programming over other approaches.</p>  |
| 17 | 15BESAO3 | AOC II –Automotive Electronics                              | <p>Obtain an overview of automotive components, subsystems, design cycles, communication protocols and safety systems employed in today's automotive industry</p> <p>Interface automotive sensors and actuators with microcontrollers</p> <p>Develop, simulate and integrate control algorithms for ECUs with hardware</p>   |
| 18 | 15BESAO4 | Internet and Java Programming                               | <p>Knowledge of the structure and model of the Java programming language</p> <p>Use the Java programming language for various programming technologies</p> <p>Develop software in the Java programming language,</p> <p>Evaluate user requirements for software functionality</p> <p>Required to decide whether the Java programming</p>   |
| 19 | 15BES501 | Core 9- Industrial and Power Electronics                    | <p>Acquire knowledge about fundamental concepts and techniques used in power electronics.</p> <p>Ability to analyze various single phase and three phase power converter circuits and understand their applications</p> <p>Foster ability to identify basic requirements for power electronics based design application</p> <p>To develop skills to build, and troubleshoot power electronics circuits.</p> <p>Foster ability to understand the use of power converters in commercial and industrial applications.</p> |
| 20 | 18BES502 | Core 10- 8051 Microcontroller and its Interfacing           | <p>Draw and describe architecture of 8051</p> <p>Interface various peripheral devices to the microcontrollers.</p> <p>Write assembly language program for microcontrollers.</p> <p>Design microcontroller based system for various applications.</p>   |
| 21 | 18BES503 | Core 11- Microwave and Fiber Optics Communication           | <p>Recognize the limitations of existing vacuum tubes and solid state devices at microwave frequencies.</p> <p>Study the performance of specialized microwave tubes such as klystron, reflex klystron, magnetron and Travelling wave tube</p> <p>Understand the operation of microwave devices</p> <p>Analyze RADAR and its applications</p> <p>Understand the concept of optical fiber communication</p>  |
| 22 | 15BESP05 | Core Practical 5- Integrated Circuits and Power Electronics | <p>Design op-amp circuits to perform arithmetic operations</p> <p>Analyze and design linear and non-linear applications using op-amps.</p> <p>Analyze and design oscillators and filters using functional ICs.</p> <p>Choose appropriate A/D and D/A converters for signal processing applications.</p>  |
| 23 | 18BESP06 | Core Practical 6 – Microcontroller and its Interfacing      | <p>Draw and describe architecture of 8051</p> <p>Interface various peripheral devices to the microcontrollers.</p> <p>Write assembly language program for microcontrollers.</p> <p>Design microcontroller based system for various applications.</p>   |
| 24 | 18BESE01 | Programmable Logic Controller                               | <p>Understand digital implementation of IC's</p> <p>Design and Analyze PLC components</p> <p>Testing PLC Programming</p> <p>Synthesize PLC instructions</p> <p>Application of PLC</p>  |
| 25 | 15BESE02 | Computer Hardware and Maintenance                           | <p>Fundamentals of Hardware, handling, testing and troubleshooting of personal computer problems</p> <p>Identify the existing configuration of the computers &amp; peripherals.</p> <p>Apply their knowledge about computer peripherals to identify/rectify problems on board.</p> <p>Perform routine maintenance, upgrades of virus definitions, set schedules etc.</p> <p>Analyze &amp;/or troubleshoot communication problems related to Engine Room Automation &amp; various Navigational Bridge Equipment</p>     |
| 26 | 18BESE03 | Cloud Computing   | <p>explain the core issues of cloud computing such as security, privacy, and interoperability.</p> <p>choose the appropriate technologies, algorithms, and approaches for the related issues.</p> <p>identify problems, and explain, analyze, and evaluate various cloud computing solutions.</p>  |

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|    |          |  | provide the appropriate cloud computing solutions and recommendations according to the applications used.  |
|    |          |  | attempt to generate new ideas and innovations in cloud computing.  |
| 27 | 18BES601 | Core 12- Embedded Systems                          | Foster ability to understand the internal architecture and interfacing of different peripheral devices with Microcontrollers.                          |
|    |          |  | Foster ability to write the programs for microcontroller.  |
|    |          |  | Describe the differences between the general computing system and the embedded system, also recognize the classification of embedded systems.          |
|    |          |  | Become aware of interrupts, hyper threading and software optimization.   |
| 28 | 18BES602 | Core 13- Wireless Communication                    | Describe the phases of planning and design of mobile wireless networks   |
|    |          |  | List and compare personal area network (PAN) technologies such as Zigbee, Bluetooth etc  |
|    |          |  | Students will details of sensor network architecture, traffic related protocols, transmission technology etc   |
|    |          |  | Understand middleware protocol and network management issues of sensor networks  |
| 29 | 18BES06  | Core Practical 7- Analog and Digital Communication | Understand basic elements of a communication system  |
|    |          |  | Conduct analysis of baseband signals in time domain and in frequency domain  |
|    |          |  | Demonstrate understanding of various analog and digital modulation and demodulation techniques techniques.   |
|    |          |  | Analyse the performance of modulation and demodulation techniques in various transmission environments   |
|    |          |  | Appreciate the importance of synchronisation in communication systems  |
| 30 | 18BESE04 | Robotics & Automation                              | Ability to identify the electrical, electronics and mechanical components and use of them design or machine elements and transmission system.          |
|    |          |  | Ability to design automatic manufacturing cells with robotic control   |
|    |          |  | Ability to understand the electronic control system in metal machining and other manufacturing process.  |
|    |          |  | Ability to understand the features and operation of automation products.   |
|    |          |  | Ability to communicate effectively and work in interdisciplinary groups  |
|    |          |  | Ability to review, comprehend and report technological development   |
| 31 | 18BESE05 | Digital System Design                              | Design simple digital systems based on these digital abstractions, using the "digital paradigm" including discrete sampled information.                |
|    |          |  | Use the "tools of the trade": basic instruments, devices and design tools.   |
|    |          |  | Work in a design team that can propose, design, successfully implement and report on a digital systems project.  |
|    |          |  | Communicate the purpose and results of a design project in written and oral presentations.   |
| 32 | 15BESE06 | Multimedia and its applications                    | customize the specific parts of the Multimedia Applications (Power Point) software.  |
|    |          |  | prepare visuals by making arrangements on the slide master, and placeholders, etc.   |
|    |          |  | add pictures and texts to the Multimedia Applications Software (Power Point) using a scanner and create an album using the available photos.           |
|    |          |  | add pictures and graphics from other files to the Multimedia Applications (Power Point).   |
|    |          |  | use action buttons, effect and animation features in the Power Point software.   |
| 33 | 15BESE07 | Network Security                                   | identify some of the factors driving the need for network security   |
|    |          |  | identify and classify particular examples of attacks   |
|    |          |  | define the terms vulnerability, threat and attack  |
|    |          |  | identify physical points of vulnerability in simple networks   |
|    |          |  | compare and contrast symmetric and asymmetric encryption systems and their vulnerability to attack, and explain the characteristics of hybrid systems. |
| 34 | 18BESE08 | Real Time Operating Systems                        | Student will be able to summarize the issues in real time computing  |
|    |          |  | Student will be able to explain and give examples of real time operating systems   |
|    |          |  | Student will be able to solve scheduling problems and can apply them in real time applications in industry   |
|    |          |  | Student can also design an RTOS and will be able to interpret the feasibility of a task set to accomplish or not                                       |
|    |          |  | Analyze the situation of fault occurrence and will be able to apply solutions accordingly.   |
| 35 | 18BESE09 | Arduino  | Learn the basics of electronics, including reading schematics (electronics diagrams)   |
|    |          |  | Learn how to prototype circuits with a breadboard  |
|    |          |  | Learn the Arduino programming language and IDE   |
|    |          |  | Program basic Arduino examples   |
|    |          |  | Prototype circuits and connect them to the Arduino   |

**B.Sc (Visual Communication)**

|  |                    |                                      |  |
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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |                                      | After the completion of the under graduate programme in Bachelor of Science (B.Sc Degree), the graduates will be able to   |
|  |                    |                                      | Attain the core value in their respective area to meet out the global competitive edge.  |
|  |                    |                                      | Apply and update their skills towards their employability, entrepreneurship and its sustainability.  |
|  |                    |                                      | Realize their responsibility towards the society centre through ethical, social and human values.  |
|  |                    |                                      | Recognize the opportunities towards their up gradation and professional development in all spheres.  |
|  |                    |                                      | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |                                      | Students in their program of study will  |
|  |                    |                                      | Procreate exhaustive, conception merchandise avail oneself of their break through knowledge of new technology and traditional craft. Capability to promote their artistic personal design perception |
|  |                    |                                      | Identify problems, assume challenges and conceptualize solutions in extant fashion schemes.  |
|  |                    |                                      | Conspire across restraint as a team leader, efficient member, ingenious designer, aesthetics and creativity.   |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                   | <b>Course Outcome</b>  |
| 1  | 16VCM101           | Introduction to Visual Communication | The students understands the need and importance of Communication  |
|  |                    |                                      | The students understands the different Levels of communication   |
|  |                    |                                      | The Students understands the Fundamentals of design  |
|  |                    |                                      | The Students understands the Color psychology and color theory   |
|  |                    |                                      | The Students understands the Digital histories and new media technologies  |
| 2  | 16VCMPO1           | Core Lab I: Fine Art Production      | The students understands the Basic Drawing using Color, Lights and Shades  |
|  |                    |                                      | The students understands various perspective   |
|  |                    |                                      | The students understands types of shading  |
|  |                    |                                      | The students understands pencil sketching  |
|  |                    |                                      | The students understands how to use water color  |
| 3  | 16VCMID1           | Writing for the Media                | The students understands what are different types of writing in media  |
|  |                    |                                      | The students understands what are different Elements of news story   |
|  |                    |                                      | The students understands how to write different kind of news stories   |
|  |                    |                                      | The students understands how to write for radio industry   |
|  |                    |                                      | The students understands how to write for web industry (News Media)  |
| 4  | 16VCM201           | Media History                        | The students understands the Historical development of the press as a media  |
|  |                    |                                      | The students understands the Study of leading newspapers journalists in India since 1947   |
|  |                    |                                      | The Students understands the Invention and development of radio as a medium of mass communication  |
|  |                    |                                      | The Students understands the Film as medium of mass communication  |
|  |                    |                                      | The Students understands the Development of the new media technologies in India  |
| 5  | 16VCMPO2           | Graphic Arts- Information Design     | The students understands the Practical knowledge on Image editing  |
|  |                    |                                      | The students understand to Design Letters (Fonts)  |
|  |                    |                                      | The students understands how to use designing software   |
|  |                    |                                      | The students understands how to design Logo for a company  |
|  |                    |                                      | The students understands how to design print advertisement   |
| 6  | 16VCMID2           | Advertising                          | The students understands the growth of advertising in India  |
|  |                    |                                      | The students understands the kinds of advertising in new media   |
|  |                    |                                      | The Students understands the Latest trends in advertising  |
|  |                    |                                      | The Students understands the work profile in advertising company or agency   |
|  |                    |                                      | The Students understands how to Conceptualization and create new ideas   |
|  |                    |                                      | The students understand the need and importance of Communication with the help of communication theories and model   |

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| 7  | 16VCM301  | Communication Theories           | The students should understand the different Elements of Basic models in communication  |
|    |           |                                  | To make the student understand the Role and functions of mass media in society  |
|    |           |                                  | The students should understand the importance of effect theories in communication   |
|    |           |                                  | The students should get knowledge about the new media and technological oriented communication theories                           |
| 8  | 16VCMPO3  | Digital Photography              | The students understand about the importance of lighting and its types  |
|    |           |                                  | The students are practical trained to capture Special effects such as freeze  |
|    |           |                                  | The students understands and capture after dark movement.   |
|    |           |                                  | The students understands the technique of Aperture in photography   |
|    |           |                                  | The students understand the techniques of black and white photography   |
| 9  | 16VCMD3   | Creative Writing                 | The students understand the history of writing and language as a tool of communication  |
|    |           |                                  | The students understand about readability and its techniques along with the practical exercises                                   |
|    |           |                                  | The students are trained to write about news along with the practical exercises   |
|    |           |                                  | The students understands about news selection and editorial writing   |
|    |           |                                  | The students are trained to write news story creatively and review the already published article                                  |
| 10 | 16VCMA01  | Web Designing                    | The students understand the basics of web   |
|    |           |                                  | The students understand about designing the website   |
|    |           |                                  | The students are given exposure about information architecture  |
|    |           |                                  | The students understand about HTML coding   |
| 11 | 16VCMA02  | Basic Multimedia                 | The students understand the multimedia and its elements   |
|    |           |                                  | The students understand about the importance of text and image representation in multimedia                                       |
|    |           |                                  | The students understand about digital audio, digital video formats of multimedia  |
|    |           |                                  | The students understand about the principles of 2d and 3d animation   |
| 12 | 16VCMEI   | E-Commerce                       | The students understand the basics of internet  |
|    |           |                                  | The students understand about the importance of search engine, TCT/IP, m-commerce   |
|    |           |                                  | The students understand about electronic devices used for e-commerce  |
| 13 | 16 VCM401 | Television Production Techniques | The students understand the various television and video file formats   |
|    |           |                                  | The students understand about the video productions and its work nature   |
|    |           |                                  | The students understand about television production techniques: Single and multi camera production                                |
|    |           |                                  | The students understand about various writing approaches for video shoots   |
|    |           |                                  | The students understand about various lighting techniques for video shoots  |
| 14 | 16 VCMP04 | Script Writing                   | The students understand about writing scripts for Radio: Documentary, Radio drama and Interview                                   |
|    |           |                                  | The students understand about scripts of Television- Formats, Structure, Page breakdowns, Sitcoms                                 |
|    |           |                                  | The students understand about fact film, film treatment, shooting script  |
|    |           |                                  | The students understand about the difference between shooting script and productin script   |
|    |           |                                  | The students understand about feature film: Story.Character,Story treatment, Art of Confrontation, Step outline, Dialogue devices |
| 15 | 16VCMD4   | Media Society and Culture        | The students understand the mass communication- characteristics, growth,  |
|    |           |                                  | The students understand about contemporary importance of media in democratic modern society                                       |
|    |           |                                  | The students understand about market oriented media and social dilemma  |
|    |           |                                  | The students understand about political economy of policy perspectives  |
|    |           |                                  | The students understand about mass society and Mass culture   |
| 16 | 16VCMA03  | Web Designing II                 | The students understand the concept of CSS: Creating Style Sheet  |
|    |           |                                  | The students understand the CSS Id and Class  |
|    |           |                                  | The students understand about how to Define a Dreamweaver site Using the Welcome screen   |
|    |           |                                  | The students understand about how web design basics working with thumbnails and wireframes  |
|    |           |                                  | The students understand what is new media and its Beginning with technology   |

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| 17 | 16VCM A04 | Content Development                | The students understand about Introduction to E-content - Multi Media- E-content development                      |
|    |           |                                    | The students understand about E-Learning- History of e-learning- E-Learning Environment                           |
|    |           |                                    | The students understand about Smart Class, E-publishing, E-Commerce, E-governance and Mobile learning             |
| 18 | 16VCMED2  | Social Media Marketing             | The students understand what is Social Media Mix  |
|    |           |                                    | The students understand what are all Cyber social Tools   |
|    |           |                                    | The students understand about Blogs, Podcast, and Video in new media context                                      |
| 19 | 16VCM501  | Core 5: Media, Laws and Ethics     | The students understand and communicate the Fundamental rights, Constitutional provisions and freedom of press.   |
|    |           |                                    | The students know the legal aspect of basic rights, obligations and the knowledge of rights to information.       |
|    |           |                                    | The students should know the media conglomeration towards commercial and public agenda.                           |
|    |           |                                    | The students know about the importance of laws against official and privacy.                                      |
|    |           |                                    | The students understand the need cyber laws related to security concern.  |
| 20 | 16VCM502  | Film Studies                       | The students understand the history, growth and the development of cinema.  |
|    |           |                                    | The students should know the three stages of production work for the film or a video.                             |
|    |           |                                    | The students will know about the elements and the grammar of the films for the production.                        |
|    |           |                                    | They will know the regulations for the film industry and the film association, clubs, film festival etc.,         |
|    |           |                                    | The students should understand the art film making and learn about the legends in the film industry.              |
| 21 | 16VCM P06 | Audio Production                   | The students can write short radio script for PSA   |
|    |           |                                    | They can produce the short Radio production.  |
|    |           |                                    | The y can be trained in speech based recording  |
|    |           |                                    | They will produce live based recoring in the field  |
|    |           |                                    | Live based recording live interview   |
| 22 | 16VCM P07 | Video Editing                      | Making a material of Non linear editing in editing suite  |
|    |           |                                    | They can create news presentation   |
|    |           |                                    | They can learn and experience the song shooting   |
|    |           |                                    | They can learn revoming of chroma keying  |
|    |           |                                    | They can learn VFX and EFX  |
| 23 | 16VCM E01 | Social Psychology                  | The students will know about the nature, method and scope psychological understanding.                            |
|    |           |                                    | The students need to know the process of socialization learning process in the society.                           |
|    |           |                                    | The students should experience the group types and dynamics of the communication in the society.                  |
|    |           |                                    | They will experience the dimensions in attitude towards the communication process in social change.               |
|    |           |                                    | The students should understand the behavioral aspects of the Psychology.  |
| 24 | 16VCM E02 | Integrated Marketing Communication | The students will know integral part of the marketing in media.   |
|    |           |                                    | The students need to know the process of socialization learning process in the society.                           |
|    |           |                                    | The students should experience behavioral aspects and communication method towards advertising and promotion.     |
|    |           |                                    | They will know clear idea about the research on advertising research.   |
|    |           |                                    | The students shall know about the promotion of digital marketing techniques.                                      |
| 25 | 16VCM E03 | World Cinema                       | The students will know about famous cinemas all over the world with best director's ideas.                        |
|    |           |                                    | The students will know the forms and theory of film and cinematography and direction.                             |
|    |           |                                    | The students will experience different languages of cinemas all over the world.                                   |
|    |           |                                    | They will know the Indian legends films makers and their film crafts.   |
|    |           |                                    | The students shall know about regional languages of India's famous film making legends.                           |
| 26 | 16VCM601  | Public Relations                   | First unit of this subject help the student to understand about origin and development of public relations field. |
|    |           |                                    | This unit is talking about different techniques which adopted by PR agencies.                                     |
|    |           |                                    | This unit discussed about internet usage in PR field  |
|    |           |                                    | This unit described about usage of Social Media in PR field.  |

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|    |          |   | This unit is talking about planning and organizing PR activities.                                   |
| 27 | 18VCMP08 | Package and Design Principles             | To know about a brief history of graphic design   |
|    |          |   | The student will understand elements of design – Principles of design                               |
|    |          |   | They will know about Process of Design – Functions of Design  |
|    |          |   | They understand the process of creative   |
|    |          |   | The student will understand typography – styles and features Color in design                        |
|    |          |   | They will know how to design a package for soap product   |
|    |          |   | They will understand how to design a chocolate cover  |
|    |          |   | The student will understand how to design mobile phone pack   |
|    |          |   | They will understand how to design a package for a Television (or) Refrigerator                     |
|    |          |   | They will understand how to design a package for a Food Product                                     |
| 28 | 16VCMP09 | Compositing and Visual Effects            | The unit discussed about basics of visual effects.  |
|    |          |   | The students will understand different types of visual effects from this unit.                      |
|    |          |   | The students will learn effects of season.  |
|    |          |   | They will learn special Effects.  |
|    |          |   | The students will understand different types of tools which used in visual effects.                 |
| 29 | 16VCME04 | Cultural Studies                          | Aim of unit is to understand culture in all its complex forms.                                      |
|    |          |   | The students will learn about different theories of cultural.                                       |
|    |          |   | This unit discussed about cultural movements in different part of country.                          |
|    |          |   | This unit deals with Media and Culture and Role of Media in Cultural Development.                   |
|    |          |   | This unit argued about the role of digital cultural in society.                                     |
| 30 | 16VCME05 | Elective: Event Management                | This unit will give introduction to the event management field.                                     |
|    |          |   | This unit will teach the students how to develop mission for Event management.                      |
|    |          |   | This unit discussed about different types of marketing techniques.                                  |
|    |          |   | The students will understand different types of communication process involved in event management. |
|    |          |   | The students will get knowledge of marketing from this unit.  |
| 31 | 16VCME06 | Elective: Film Appreciation and Criticism | The students will understand Theme, Story and Screenplay of Cinematography.                         |
|    |          |   | The students will learn about feature films and short films from this unit.                         |
|    |          |   | The students will learn about Indian cinema history.  |
|    |          |   | They understand major turning points and trends in Cinema.  |
|    |          |   | They will understand world cinema   |
| 32 | 16VCME07 | Elective: Political Communication         | The students will understand basics of political Communication.                                     |
|    |          |   | They will learn about relationship between the press and political Power.                           |
|    |          |   | They will understand Indian Democracy and political structure.                                      |
|    |          |   | They will understand the contemporary political environment.  |
|    |          |   | They will learn about new types of social movements.  |
| 33 | 16VCME08 | Elective: Media Management                | The students will understand basics of Media managements and its nature.                            |
|    |          |   | They will learn about role of social media in media management.                                     |
|    |          |   | They will learn about elements of design and principles of designs.                                 |
|    |          |   | They will understand the role marketing in Media management.  |
|    |          |   | They will learn the role of promo and advertisement in media management.                            |
| 34 | 16VCME09 | Elective: Film Appreciation and Criticism | The students will learn about the fundamentals of film production.                                  |
|    |          |   | They will understand the fundamentals of film distribution.   |
|    |          |   | They will learn about budgeting of films.   |
|    |          |   | This unit will teach about film perception.   |



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|    |          |         | This unit discussed about different theories regarding films making.  |
| 35 | 16VCMRP1 | Project | They will also learn script writing practices, which is the blue print for movie making                                       |
|    |          |         | By shooting variety of Short films & documentaries ,students are highly creative in expressing their thoughts& ideas          |
|    |          |         | They will coordinate among themselves and learn production team works in the field as cinematography,screenplay,editing&etc.. |
|    |          |         | More practical knowledge can be inculcated from their system of learning  |
|    |          |         | Students are adept to be trained for the current scenario media industry  |

**B.Se(CATERING SCIENCE AND HOTEL MANAGEMENT)**

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|---------------------------------|--------------------|---|---|
| <b>PROGRAM OUTCOME:</b>         |                    |   | Attain the core value in their respective area to meet out the global competitive edge.   |
|                                 |                    |   | Apply and update their skills towards their employability, entrepreneurship and its sustainability.   |
|                                 |                    |   | Realize their responsibility towards the society centre through ethical, social and human values.   |
|                                 |                    |   | Recognize the opportunities towards their up gradation and professional development in all spheres.   |
|                                 |                    |   | Ensure the quality in terms of all the aspects by the way of their contribution in work atmosphere.   |
| <b>PROGRAM SPECIFIC OUTCOME</b> |                    |   | The students will be able to understand, practice and adopt skill set through practicals in Food Production, Food and Beverage Service, Housekeeping, Front Office, Bakery and Confectionary. |
|                                 |                    |   | Access library, computer and communications services and obtain information.  |
|                                 |                    |   | required of Hotel, Restaurant, Accommodation Operations, Culinary professionals, Hospitality consultant, through the use of a competency based program.                                       |
| <b>S.No</b>                     | <b>Course Code</b> | <b>Course Name</b>                                  | <b>Course Outcome</b>   |
| 1                               | 16BHM101           | Core 1- Food Production and Patisserie-I            | To acquire theoretical knowledge in basic cookery.  |
|                                 |                    |   | Understand the basic operations of a professional Kitchen, man power planning and layout planning.  |
|                                 |                    |   | Familiarise Various terms used in preparation methods, measurement, mixing of food and various textures, principles of cooking by learning the methods of cooking                             |
| 2                               | 16BHM102           | Core 2- Food and Beverage Service-I                 | Develop general knowledge on the origins and development of food service in hotels, restaurants, and institutions.  |
|                                 |                    |   | Man power attributes and outlets of the food and beverage operations.   |
|                                 |                    |   | Understand and identify various food and beverage operational equipments & french classical menu  |
| 3                               | 16BHM103           | Core 3- Housekeeping Management                     | Understand the role of the housekeeping department in hotel operations. Identify typical cleaning responsibilities of the housekeeping department.  |
|                                 |                    |   | Apply techniques to develop and improve human resource skills   |
|                                 |                    |   | Manage inventories of recycled and non-recycled items, Control expenses, safety and security, Laundry Operations needs of hospitality operations  |
| 4                               | 16BHMID1           | IDC 1 : Personality Development                     | Understand self awareness. Importance of goals and ways to stimulate them.  |
|                                 |                    |   | Understand the Importance of interpersonal skills and effective ways to improve them and stress removal techniques.   |
|                                 |                    |   | Understand all about time management and tools to develop skills. Various attributes of personlaity types and leadership qualities.   |
|                                 |                    |   | Understand Group discussion guidelines and Body language and ways to enhance it.  |
| 5                               | 16BHM201           | Core 4 - Food Production and Patisserie-II          | Understand vegetable cooking by learning classification of vegetables, potatoes and reheating.  |
|                                 |                    |   | Develop Knowledge on cheese preparation and classification by understanding milk processing and binding agents.   |
|                                 |                    |   | Understand Acquire basic knowledge of various kinds of Fish, meat, and poultry, their cuts and parts. And to understand about various stocks, sauces and soups.                               |
| 6                               | 16BHM202           | Core 5- Food and Beverage Service-II                | Develop Knowledge on Types of menu, laying a cover and order taking procedures.   |
|                                 |                    |   | Classification of beverages and common styles of preparations.  |
|                                 |                    |   | Method of room service, tray setup, Menu card and Billing methods.  |
| 7                               | 16BHMP01           | Core Practical 1- Food Production and Patisserie -I | Identification of Equipments - Description, Uses & handling. Understand Kitchen Hygiene, safety and security.   |
|                                 |                    |   | Identification of Raw materials. Knife handling Skills.   |
|                                 |                    |   | Knowledge and preparation of different kinds of stock.  |
|                                 |                    |   | Knowledge and preparation of different kinds of Sauces and two derivatives each.  |
| 8                               | 16BHMP02           | Core Practical 2 – Food and Beverage Service -I     | Appraising and drawing of cutlery, crockery, glassware and miscellaneous equipments.  |
|                                 |                    |   | Demonstrate Serviette folds, Laying and relaying of table cloths.   |
|                                 |                    |   | Demonstrate Cleaning and polishing, wiping of cutlery, crockery and glassware.  |
|                                 |                    |   | Demonstrate Tray Setup and Carrying and Cover Laying for French Classical Menu.   |

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| 9  | 16BHMP03 | Core Practical 3 - Housekeeping Management Practical   | To develop knowledge on housekeeping Etiquettes with procedure, Equipement and its styles.  |
|    |          |  | Develop knowledge types of guest rooms. Understand the various cleaning agents and their usage. Various areas of cleaning   |
|    |          |  | Manage manpower and duty allocations.   |
| 10 | 16BHM301 | Core 6 - Food Production and Patisserie-III            | Acquire theoretical knowledge about Indian cookery, Quantity cooking, basic gravies and regional cookery.   |
|    |          |  | Understand the Ingredients, characteristics, Festival dishes of India   |
|    |          |  | Understand and learn the details of Tandoor cooking, ingredients and marinations.   |
| 11 | 16BHM302 | Core 7- Food and Beverage Service-III                  | Gain knowledge of Billing Control & checking systems.   |
|    |          |  | Knowledge of Alcoholic beverages, Meaning and classification  |
|    |          |  | Knowledge of types and production and types of alcohols.  |
| 12 | 16BHM303 | Core 8- Front Office Operations                        | Develop knowledge on types of hotels, rooms, and guest. Understand the attributes of the front office staff.  |
|    |          |  | Knowledge of equipments used in front office and operations of reservations.  |
|    |          |  | Develop knowledge on various types of account settlements and the checkout procedures and importance of Guest relation and social skills.   |
| 13 | 16BHM304 | Core 9 - Bakery and Confectionery                      | Acquire theoretical knowledge in dough, paste, and icing.   |
|    |          |  | Understand about the raw materials used in bakery   |
|    |          |  | Develop knowledge on Bread and cake, meringue and cookies making and their faults.  |
| 14 | 16BHMA01 | Practical - Bakery and Confectionary                   | Acquire Professional skills in Bakery and Confectionery   |
|    |          |  | Demonstrate Skill in making Breads, Buns, Cakes, Sponges, Icings.   |
|    |          |  | Demonstrate Skill in making Various Pastes, Tarts, Pies, Puddings, pastries, Cookies.   |
| 15 | 16BHMA02 | Practical - Cake Icing and Decoration                  | Demonstrate Skill about Basic Icing making  |
|    |          |  | Demonstrate Skill in application of different Icings in finished food Products  |
|    |          |  | Demonstrate Skills in making decoration with Different Icing  |
| 16 | 16BHM401 | Core 10 - Food Production And Patisserie-IV            | Understand and learn International cuisine-Chinese cuisine, Sri Lankan cuisine  |
|    |          |  | Understand and learn International cuisine- Japanese cuisine, Italian cuisine   |
|    |          |  | Understand and learn International cuisine- Spanish cuisine, French cuisine, Mediterranean cuisine.   |
| 17 | 16BHM402 | Core 11- Food and Beverage Service-IV                  | Understand and learn International cuisine - Scandinavian cuisines, United Kingdom, Mexican cuisine and Fusion Cuisine.   |
|    |          |  | Acquire theoretical knowledge in wines, wines of different countries, cocktails and Mocktails.  |
|    |          |  | Acquire good knowledge in Classification of French wines and their important, classification of Wines of Germany  |
| 18 | 16BHMP04 | Core Practical 4 - Food Production and Patisserie - II | Gain knowledge of Wines of Italy and their classification. Understand the importance of wine and food with examples.  |
|    |          |  | Learn about Cocktails and Mocktails, their meaning, method and classification.  |
|    |          |  | Learn about Beverage list -Meaning and importance. Method and order of listing and pricing beverages  |
| 19 | 16BHMP05 | Core Practical 5 - Food and Beverage Service - II      | Demonstrate skill on Ten different menu will help learn the Preparation of Indian and International cuisine dishes consisting of soup, pasta, eggs, fish, chicken meat, Indian sweets and Desserts. |
|    |          |  | Demonstration will help learn – Naan, kulcha, roti, chicken tikka, fish tikka, sheek kebab, Tandoori chicken, Hariyali chicken/ fish tikka, tangri kebab.   |
|    |          |  | Demonstration will help learn – Tandoori chicken, Hariyali chicken/ fish tikka, tangri kebab.   |
| 20 | 16BHMP06 | Core Practical 6 - Front Office Operations             | Demonstration of Beverage order taking .  |
|    |          |  | Demonstration of Service of Alcoholic Beverages.  |
|    |          |  | Demonstration of Service of liqueur coffee and spirit coffee.   |
| 21 | 16BHME01 | Food service Facilities and planning                   | Demonstration of Laying of Compiled menu and service with wine suggestions  |
|    |          |  | Demonstrate skill in Situation handling and guest complaints.   |
|    |          |  | Demonstrate skill in Reservation procedure, identification of rooms through the use of Conventional and Destiny Charts.   |
|    |          |  | Develop Skill about the following staffs Doorman, Bellboy, Receptionist, Information assistant,   |
|    |          |  | Develop knowledge about Design and Layout Planning of a food facility.  |
|    |          |  | Develop knowledge Preliminary planning information and Preparing the prospectus to learn about the initial set up   |
|    |          |  | Develop knowledge about Functional Planning and Planning the atmosphere to learn about the details in organising the facility.  |
|    |          |  | Acquire Knowledge about work place design and Equipment requirements.   |
|    |          |  | Develop basic knowledge on Fast food operations History   |

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| 22 | 16BHME02 | Fast food Operations                                    | Understand the different Concept of Fast food Joints   |
|    |          |   | Acquire Knowledge about Equipments, Control measures and types of food.  |
|    |          |   | Develop Knowledge on establishing Standards and Exploring Case studies   |
| 23 | 16BHME03 | Food Safety Microbiology                                | Develop understanding about Safety Perspective   |
|    |          |   | Understanding about Various Microbes Causing Contamination   |
|    |          |   | Acquire Knowledge on Food Hygiene relevant to various Products.  |
|    |          |   | Develop Understanding about food borne Infection, Causes of Toxicity and FSSAI Regulations   |
| 24 | 16BHMD4  | IDC 4 – Travel and Tourism                              | Gain knowledge about the types and motivation of travel by learning about the Principles of Tourism  |
|    |          |   | Learn the functions of travel agents and their role.   |
|    |          |   | Develop knowledge of the rules and regulations of travel pertaining to government organisations.   |
|    |          |   | Tour operators and travel requirements to understand travelling around the world.  |
| 25 | 16BHMA03 | Practical - Garden Manger                               | Identification of Equipments and Raw materials used in Garden Manger   |
|    |          |   | Carving from Vegetable, Fruits, Thermocol, Butter Sculpture and Ice.   |
|    |          |   | Preparation of cold egg, chicken and red meats dishes and Plate and Mirror Presentation  |
| 26 | 16BHMA04 | Practical - Indian Sweets and Snacks                    | Develop Ability to demonstrate in making of Indian Milk Sweet.   |
|    |          |   | Develop Ability to demonstrate in making of Indian sweets with Various Raw Materials   |
|    |          |   | Develop Ability to demonstrate in making of Indian Snack made with different raw materials   |
| 27 | 16BHM501 | Core 12 - Food Production and Patisserie-V              | Acquire theoretical knowledge about Garden manger kitchen operations, products prepared and about left over utilization.                                 |
|    |          |   | Functions of larder Department and its various details. Butchery: Meaning, functions of Butchery   |
|    |          |   | Force meat: Meaning, uses with recipes. Panada, Compound butters, Marinade, Brine their types and uses.  |
|    |          |   | Garnishes and their types. Standard Recipe and its importance. Details about stewarding department.  |
| 28 | 16BHM502 | Core13- Food and Beverage Service-V                     | Gueridon Service and its importance.   |
|    |          |   | Learning about Function catering: Introduction and types.  |
|    |          |   | Outdoor catering and Specialized forms of service  |
|    |          |   | Details about Banquets and Buffets. Introduction to Mixology to learn about bar, and related beverages.  |
| 29 | 16BHM503 | Core14- Food and Beverage Management                    | Food & Beverage function - Responsibilities & objectives of F&B department   |
|    |          |   | Purchasing of food & beverages and related details   |
|    |          |   | Learning about Storing & issuing relates to Food and beverage control. Gain knowledge about the Elements of cost Menu Engineering and Menu Merchandising |
| 30 | 16BHMP07 | Core Practical 7 - Food Production and Patisserie - III | Acquire practical skills in advanced professional Continental cuisine  |
|    |          |   | Preparation of Salad, Soup.  |
|    |          |   | Preparation of Egg, Pasta.   |
|    |          |   | Preparation of Fish, Meat and Chicken. Preparation of Savoury and Desert.  |
| 31 | 16BHMP08 | Core Practical 8 - Food And Beverage Service -III       | Cooking and Carving at Table.  |
|    |          |   | Designing and Setting the Bar.   |
|    |          |   | Compiling an Alcoholic Beverage List.  |
|    |          |   | Art of Mocktail Mixing   |
| 32 | 16BHME04 | Human Resource Management in Hospitality Industry       | Familiarise Role of Human resource department and its policies and procedures  |
|    |          |   | Manpower Planning and Recruitment  |
|    |          |   | Performance Appraisal, Promotion and Punishments   |
|    |          |   | Administration of Wages and Salary and Industry Relationship   |
| 33 | 16BHME05 | Hotel Law   | Factors involving Contracts  |
|    |          |   | Food Regulations   |
|    |          |   | Alcohol Regulations  |
|    |          |   | Acts and Laws relevant to Hospitality  |
|    |          |   | Factors involved in preservation & processing  |

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| 34 | 16BHME06 | Food Preservation | understanding of preservation of food through low temperature                |
|    |          |                   | To develop an understanding of preservation of food through high temperature |
|    |          |                   | Techniques Involved in Food preservation using Various Medium.               |

**BCA**

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |  | Understand the concepts of key areas in Computer Applications.   |
|  |                    |  | Analyze and apply latest technologies to solve problems in the areas of computer applications.   |
|  |                    |  | Analyze and synthesis computing systems through quantitative and qualitative techniques.   |
|  |                    |  | Apply technical and professional skills to excel in business.  |
|  |                    |  | Develop practical skills to provide solutions to industry, society and business.   |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |  | To equip the students to meet the requirement of Corporate world and Industry standard.  |
|  |                    |  | To engage in professional development and to pursue post graduate education in the fields of Information Technology and Computer Applications.     |
|  |                    |  | To provide the students about computing principles and business practices in software solutions, outsourcing services, public and private sectors. |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                         | <b>Course Outcome</b>  |
| 1  | 15BCA101           | Introduction to Office Automation          | The students will be good enough in the basics of computer and programming.  |
|  |                    |  | The students will be well trained in MS Word.  |
|  |                    |  | The students will gain knowledge in MS Excel.  |
|  |                    |  | The students are good in MS Power point Presentaion  |
|  |                    |  | The students will be developed in creating MS Access Database.   |
| 2  | 15BCAP01           | Office Automation and Internet Programming | The students gained the knowledge in creating with MS Word document.   |
|  |                    |  | The students acquired the knowledge about creating presentation and animation using power point.   |
|  |                    |  | The Students learnt to develop in creating MS Excel spread sheets.   |
|  |                    |  | The students gained the knowledge about creating databases in MS Access.   |
|  |                    |  | The students can get the training in working with internet and Email.  |
| 3  | 15BCA201           | Programming in C                           | The students will gain knowledge in BASICS Of C  |
|  |                    |  | The students will gain knowledge on control structures and arrays  |
|  |                    |  | The students will gain knowledge in fuctions   |
|  |                    |  | The Students will learn Structures and union ,Pointers and Strings   |
|  |                    |  | the Students wil gain knowledge on file managemnt in C   |
| 4  | 15BCAP02           | Programming in C Lab                       | The students are traingt to use data types and operators in C  |
|  |                    |  | The students are traingt to use looping and arrays   |
|  |                    |  | The Students learnt to develop programming using strings and pointers  |
|  |                    |  | The Students learnt to develop programming using structures and unions   |
|  |                    |  | The Students gain knowlede about file management   |
| 5  | 15BCA301           | : Object Oriented Programming With C++     | The students can Apply C++ features to program design and implementation.  |
|  |                    |  | The students can Design and implement programs using C++.  |
|  |                    |  | The students can Analyze a problem description, design and build object-oriented software  |
|  |                    |  | The students can Use C++ to demonstrate practical experience in developing object-oriented solutions.  |
|  |                    |  | The students can Implement an achievable practical application and analyze issues related to object-oriented techniques                            |
| 6  | 15BCA302           | Operating System                           | The students Gain extensive knowledge on principles and modules of operating systems.  |
|  |                    |  | The students can Understand key mechanisms in design of operating systems modules  |
|  |                    |  | The students can Understand process management, concurrent processes and threads   |
|  |                    |  | The students can Compare performance of processor scheduling algorithm   |
|  |                    |  | The students can understand operating system concepts such as process management, synchronization,   |

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| 7  | 15BCA303 | Data Structures               | The students Have a comprehensive knowledge of the data structures and algorithms                         |
|    |          |                               | The students Have an understanding and practical experience of algorithmic design                         |
|    |          |                               | The students Have practical experience of developing applications that utilize databases                  |
|    |          |                               | The students can Understand the issues involved in algorithm complexity and performance.                  |
|    |          |                               | The students can Understand the importance of data and be able to identify the data requirement           |
| 8  | 18BCAP03 | Data Structures and C++ Lab   | The students are trained to use data types and operators in C++   |
|    |          |                               | The students are trained to use looping and arrays  |
|    |          |                               | The Students learnt to develop programming using overloading concepts                                     |
|    |          |                               | The Students learnt to develop programming using stack and queue algorithms                               |
|    |          |                               | The Students gain knowledge about Searching Algorithm   |
| 9  | 18BCAA01 | Web Designing Using HTML      | The students can understand about Internet services and features  |
|    |          |                               | The students can gain proper knowledge about protocols , email  |
|    |          |                               | The students are learnt about HTML tags to develop web page designing                                     |
|    |          |                               | The students can gain knowledge about how to use tables, images using HTML tags                           |
|    |          |                               | The students can gain knowledge about sound and videos and also develop FORM                              |
| 10 | 18BCAA02 | Web Designing Using photoshop | The students can easily learn about vector , shapes and bit maps  |
|    |          |                               | The students can develop web page creation by layer,mask and other techniques in photoshop                |
|    |          |                               | The students can learn about painting and editing tools and techniques                                    |
|    |          |                               | The students can gain knowledge about ADOBE Reader and also web gallery                                   |
|    |          |                               | The students can apply special effects for an image   |
| 11 | 15BCA401 | Java Programming              | The students can Understand the concept of OOP as well as the purpose and usage principles of inheritance |
|    |          |                               | The students can identify classes, objects, members of a class  |
|    |          |                               | The students can Create Java application programs using sound OOP practice                                |
|    |          |                               | The students can Use testing and debugging tools to discover errors of Java programs                      |
|    |          |                               | The students can Develop programs using the Java Collection API   |
| 12 | 18BCA402 | RDBMS                         | The students can Understand database concepts and structures  |
|    |          |                               | The students can Understand the objectives of data and information management                             |
|    |          |                               | The students can Understand data modeling and database development process                                |
|    |          |                               | The students can Construct and normalize conceptual data models   |
|    |          |                               | The students can Implement a relational database into a database management system                        |
| 13 | 18BCAP04 | Programming in Java           | The students can Apply java features to program design and implementation.                                |
|    |          |                               | The students can Design and implement programs using java beans   |
|    |          |                               | The students can Analyze a problem description, design and build object-oriented concepts                 |
|    |          |                               | The students can create packages ,interfaces and applet using java  |
|    |          |                               | The students can create Java application programs using the techniques of client server                   |
| 14 | 18BCAP05 | RDBMS LAB                     | The students can develop programs using SQL commands  |
|    |          |                               | The students can Design and implement Database  |
|    |          |                               | The students can understand the concepts of select command  |
|    |          |                               | The students can create tables,forms related to consumer products.  |
|    |          |                               | The students can create a table to show the database transactions   |
| 15 | 15BCAA03 | Multimedia                    | The students can understand multimedia and its combination concepts                                       |
|    |          |                               | The students can learnt about text , video , audio and animation  |
|    |          |                               | The students can understand the stages behind the multimedia project                                      |
|    |          |                               | The students also gain proper knowledge about the Internet(web)   |
|    |          |                               | The students can develop programs using the coreldraw techniques for designing an image                   |

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| 16 | 15BCAA04 | Graphic Design using CorelDraw    | The students can create an object ,move an object<br>The students can use special effects ,colors, for an object<br>The students can understand how to import an image and trace the image  |
| 17 | 15BCA501 | .Net Programming                  | The students can Understand .NET Framework<br>The students can describe some of the major enhancements to the new version of Visual Basic<br>The students can Create applications using Microsoft Windows® Forms<br>The students can Create applications that use ADO. NET<br>The students Use Crystal Reports that may help in creating reports related to the project   |
| 18 | 18BCA502 | Computer Networks                 | The students can Learn the need to create a Network<br>The students can Learn about different layers and protocols present in those layers<br>The students can Learn to configure the network devices<br>The students can Learn about IP -Addressing.<br>The students can Learn about Network Security  |
| 19 | 18BCA503 | Phython Programming               | The students can Understand the concept of OOP as well as the purpose and usage principles of inheritanc<br>The students can identify classes, objects, members of a class<br>The students can Create Web application programs using sound OOP practice<br>The students can Use testing and debugging tools to discover errors of Phython programs<br>The students can Develop a web site using the Phython Programming             |
| 21 | 15BCAE01 | E-Commerce                        | The students can learn about E-commerce, E-business benefits and limitations<br>The students can understand about mobile commerce and wireless applications<br>The students can understand about E-security in cyberspace<br>The students learnt about E-payments and M-commerce<br>The students can understand business tools and EDI  |
| 20 | 18BCAE02 | Client Server Computing           | The students learnt about evolution og client sever computing<br>The students can gain knowlege about various system standards(Client server OS)<br>The students learnt about client hardware and software other components<br>The students can know about the server- hardware,network management<br>The students can understand about the networking concepts   |
| 21 | 15BCAE03 | Software Eng and Software Testing | The students Know about the software product and process.<br>The students Know about software characteristics, components and applications, methods and tools<br>The students can Understand the software development paradigms<br>The students can gain knowlege about various testing .<br>The students can understand about system , acceptance and implematation phase.   |
| 22 | 18BCAP06 | .Net Programming                  | The students are trained to develop programs for .net framework<br>The students are trained to develop simple application using the concepts of inheritance<br>The students are trained to develop simple application to generate auto passwords and GK test<br>The students can develop any kind of queries and various table manipulation can be done<br>The students can develop programs with database connections over network |
| 23 | 18BCAP07 | Python Programming Lab            | The students are trained to develop using Phython language<br>The students are trained to develop simple application using the concepts of inheritance<br>The students are trained to develop simple application to connect client and server<br>The students can connect with the database<br>The students can be trained to devlop scripting code   |
|    |          |                                   | The students could get awareness about the security mechanisms<br>The students can understand the terminology and background of cryptographics  |

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| 24 | 15BCA601 | Information Security               | <p>The students learnt to find faults and fix faults in malicious program</p> <p>The students can understand methods of protection in operating systems</p> <p>The students gained knowledge about security requirements of databases.</p>  |
| 25 | 15BCA602 | PHP Programming                    | <p>The students can Create PHP scripts that use object-oriented PHP.</p> <p>The students can Implement business logic within the database</p> <p>The students can Use stored procedures and triggers</p> <p>The students can Create and deploy a portable web-based system</p> <p>The students can Test and debug object-oriented PHP scripts</p>   |
| 26 | 15BCAP08 | PHP Programming                    | <p>The Students learnt to develop programming using PHP scripts and its datatypes</p> <p>The Students learnt to develop programming using arrays.</p> <p>The Students learnt to develop programs using forms and cookies</p> <p>The Students gain knowledge about image functions and graphics</p> <p>The Students gain knowledge about MySQL</p>   |
| 27 | 15BCAE04 | Mobile Computing                   | <p>The students can Identify constraints, uncertainties and risk of the system</p> <p>The students can identify and apply relevant problem solving methodologies</p> <p>The students can Design components, systems and/ or processes to meet required specification</p> <p>The students can Demonstrate research skills</p> <p>The students can Communicate effectively in ways appropriate to the discipline, audience and purpose.</p>   |
| 28 | 15BCAE05 | Introduction to Android Technology | <p>To introduce Android platform and its architecture.</p> <p>To be familiarized with Intent, Broadcast receivers and Internet services.</p> <p>To work with SQLite Database and content providers.</p> <p>To integrate multimedia, camera and Location based services in Android Application.</p> <p>To explore Mobile security issues.</p>  |
| 29 | 15BCAE06 | Cloud Computing                    | <p>Students will try to learn Basics of cloud computing.</p> <p>Students will be trained about Key concepts of virtualization.</p> <p>Understand Different Cloud Computing services</p> <p>Cloud Implementation, Programming and Mobile cloud computing</p> <p>The students can learn about Cloud Backup and solutions</p>  |
| 30 | 15BCAE07 | Software Project Management        | <p>To understand the nature of software development and software life cycle process models etc</p> <p>To Explain methods of capturing, specifying, visualizing and analyzing software requirements.</p> <p>To understand concepts and principles of software design and user-centric approach and principles of effective user interfaces.</p> <p>To know basics of testing and understanding concept of software quality assurance</p> <p>To understand need of project management and project management life</p>                 |
| 31 | 15BCAE08 | Web Technology                     | <p>The students can improve their Ability to develop web pages using HTML and Cascading Style Sheets.</p> <p>The students gain Knowledge of client-side (JavaScript) server-side scripting (PHP, ASP.NET) languages</p> <p>The students can understand about static and dynamic web pages</p> <p>The students can Familiarization with Web Application Terminologies, Internet Tools, E-Commerce, web service</p> <p>The students can understand about Mobile Communication</p>   |
| 32 | 15BCAE09 | Distributed Computing              | <p>Study software components of distributed computing systems.</p> <p>Know about the communication and interconnection architecture of multiple computer systems.</p> <p>Recognize the inherent difficulties that arise due to distributed-ness of computing resources.</p> <p>Understanding of networks &amp; protocols, mobile &amp; wireless computing and their applications to real world problems.</p> <p>At the end students will be familiar with the design, implementation and security issues of distributed system.</p> |
|    |          |                                    | <p>The students can Learn critical thinking skills and inquiring skills through application-oriented project</p> <p>The students can develop projects in CS &amp; IT in a team-work environ</p>   |

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| 33 | 15BCAPR01 | Project and Viva Voce | <p>The students can Learn literature survey skills.</p> <p>The students can Learn problem solving skills.</p> <p>Students will develop their innovative recent techniques</p> <p>The students can Learn proposal development skills to initiate an application-oriented project</p> |
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#### BA ENGLISH

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |                                      | <p>Students should be familiar with representative literary and cultural texts within a significant number of historical, geographical, and cultural contexts.</p> <p>Students should be able to apply critical and theoretical approaches to the reading and analysis of literary and cultural texts in multiple genres.</p> <p>literary and cultural texts and understand the way these ideas, values, and themes inform and impact culture and society, both now and in the past.</p> <p>Students should be able to ethically gather, understand, evaluate and synthesize information from a variety of written and electronic sources.</p> <p>Students should be able to understand the process of communicating and interpreting human experiences through literary representation using historical contexts and disciplinary methodologies.</p> |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |                                      | <p>behavioural attitude through literary subjects and shaping the students to become socially responsible citizens and critically analysing the literary works.</p> <p>Educating students in both the artistry and utility of the English language through the study of literature and other contemporary forms of culture.</p> <p>Assisting students in the development of intellectual flexibility, creativity, and cultural literacy so that they may engage in life-long learning and provide academic environment to fit in a job.</p>   |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                   | <b>Course Outcome</b>   |
| 1  | 16ENG001           | English –I                           | <p>Learn the use of language through prescribed texts.</p> <p>Enables them to recognize and draw parallels to thoughts, feelings, ideas in the texts from life experiences.</p>   |
| 2  | 18BAE101           | Core 1- Prose I                      | <p>Exposes the students to know about prose writing over the centuries.</p> <p>Makes students curious about the subject of essay.</p> <p>The learners are exposed to the lives of great men.</p> <p>Familiarizes students with various rhetoric devices</p>   |
| 3  | 18BAE102           | Core 2 -Fiction-I                    | <p>the Students demonstrate literal and inferential comprehension of works of non-fiction (i.e. newspaper and magazine articles) through participation in discussion and writing activities.</p> <p>Students use strategies before, during, and after reading to aid in the construction and enhancement of meaning</p> <p>orients the students with fictional devices such as plot, characterization, dialogues, diction etc.</p>  |
| 4  | 18BAEID1           | IDC 1- Social History of England     | <p>Inculcates the knowledge of the history of the country of the native speakers.</p> <p>The students aware of the links between socio-political events and literary works.</p> <p>The significant events in British History</p> <p>Develop a sense of chronology</p>   |
| 5  | 16ENG002           | English – II                         | <p>Enable students to write cogently and persuasively about literary texts</p>  |
| 6  | 18BAE201           | Core 3- Poetry-I                     | <p>Provides the students a knowledge of the significant contribution of great writers of poetry.</p> <p>Provides the students a knowledge of the various forms and styles of English Poetry.</p> <p>Identifies a variety of forms and genres of poetry from diverse cultures and historic periods, such as haiku, tanka, sonnets, ballads, dramatic monologues, free verse, etc.</p>  |
| 7  | 18BAE202           | Core 4- Fiction-II                   | <p>The students to respond in discussions and in writing, using personal, literal, interpretative, and evaluative stances, to works of fiction and/or non-fiction.</p> <p>The students to use strategies before, during, and after reading to aid in the construction and enhancement of meaning</p> <p>The students to identify and explain the significance of the essential literary elements of novels (i.e. character, setting, conflict, plot, climax, resolution, theme, tone, and point of view)</p> <p>The students to participate in discussions and draft writing which demonstrates an understanding of diverse cultural perspectives.</p>  |
| 8  | 18BAEID2           | IDC 2 –History of English Literature | <p>Prepares the students in exploring the multitudinous aspects of English Literature.</p> <p>The students have a comprehensive understanding of the growth and development of English literature.</p> <p>Examines literature from multiple eras, cultures and genres with critical understanding.</p> <p>Promotes intellectual independence and critical thinking.</p>   |
| 9  | 16ENG003           | English III                          | <p>Lead students to effective performances in communication.</p> <p>Build in capacities for self criticism and facilitate growth</p> <p>Kindle the creativity of the students</p> <p>Identify the detective novels and its techniques</p>   |



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|    |          |                                      | Enhances vocabulary of the students through idiomatic expressions   |
| 10 | 15BAE301 | Core 5 -Poetry-II                    | Provide the knowledge of the significant contribution of great writers of poetry.   |
|    |          |                                      | Provide the knowledge of the various forms and styles of English Poetry.  |
|    |          |                                      | Identify a variety of forms and genres of poetry from diverse cultures, historic periods, such as sonnets, ballads, dramatic monologues, free verse, etc. |
|    |          |                                      | Recognize the rhythms, metrics and other musical aspects of poetry.   |
|    |          |                                      | Identify the tone and themes of the poetry  |
| 11 | 15BAE302 | Core 6- Drama-I                      | Create interest in theatrical skills.   |
|    |          |                                      | Enhance the skill of communication  |
|    |          |                                      | Strengthen the dramatic skills of the students.   |
|    |          |                                      | Make them familiarize the stage management  |
|    |          |                                      | Learn stage setting and background  |
| 12 | 16BAEID3 | IDC 3 – Literary forms               | Give better exposure on the history of works.   |
|    |          |                                      | Help students classify and interpret a work of art better.  |
|    |          |                                      | Explore works of literature through various forms   |
|    |          |                                      | Organise and arrange the literary work based on its style   |
|    |          |                                      | Classify the works according to their forms   |
| 13 | 16BAEA01 | AOC I – An Introduction to Phonetics | Introduce to the students the broad areas of phonetics such as Consonants and vowel sound, phonology and use of language in context.                      |
|    |          |                                      | Acquaint the students with the basic principles as well as methods of Phonetics.  |
|    |          |                                      | Strengthen Phonetic competence and performance of the students  |
|    |          |                                      | Identify the basic sound structures   |
|    |          |                                      | Use articles according to the sound systems while speaking  |
| 14 | 16BAEA02 | AOC I Translation Task               | Familiarize students with administration terminologies in English and Mother Tongue   |
|    |          |                                      | Help them acquire a working knowledge in that field.  |
|    |          |                                      | Acquire prowess in the aptitude of comparing literary works in translated Versions.   |
|    |          |                                      | Learn the culture of other countries through translation  |
|    |          |                                      | Learn the grammatical structures between two languages  |
| 15 | 16ENG004 | English – IV                         | Inculcate the communicative behavior among students.  |
|    |          |                                      | Introduce the language learning methods through literature.   |
|    |          |                                      | Enable the students to realize the various contexts of English for their best usage of the Language.  |
|    |          |                                      | Understand the basics of grammar  |
|    |          |                                      | Express views in LSR&W Skills   |
| 16 | 15BAE401 | Core 7 -Drama-II                     | Enhance the theatrical skills of the students.  |
|    |          |                                      | Acquaint the students with the stage and the role of actors.  |
|    |          |                                      | Strengthen the dramatic skills of the students.   |
|    |          |                                      | Make them familiarize the stage management  |
|    |          |                                      | Learn stage setting and background  |
| 17 | 16BAE402 | Core 8 - Prose II                    | Enable the students to identify the various modes of prose writing  |
|    |          |                                      | Develop the critical thinking ability of the student  |
|    |          |                                      | Equip them to write prose in as many different modes as possible  |
|    |          |                                      | Identify various modes of prose writings in relation to their socio-historic and cultural context   |
|    |          |                                      | Comprehend the ideas in prose.  |
| 18 | 15BAEID4 | IDC 4-Indian Writing in English      | Introduce the phases of evolution in Indian Writing in English.   |
|    |          |                                      | Know the significance of Indian Writing in English  |
|    |          |                                      | Acquaint learners to the pluralistic dimensions of this literature.   |
|    |          |                                      | Sensitize them to the value system of Indian Writings in literature.  |

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|    |          |  | Make learners aware of prominent Indian writers  |
| 19 | 15BAEA03 | AOC II: - Intensive Study of an Author | Make the students proficient in Modern Period.<br>Provide the students an opportunity to fully comprehend an author's creative genius as projected in his works.<br>Learn the authors specialisation in various genres<br>Understand the work of the author intensively<br>Expose to the style of the author's writing |
| 20 | 15BAEA04 | AOC II -Lets Communicate               | Make the students communicate effectively<br>Enable them to Speak Impromptu<br>Develop internal and external communications<br>Enhance LSRW Skills<br>Reply optimistically in written form.  |

#### M Sc (MATHEMATICS)

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| PROGRAMME OUTCOME (PO):           |             |                                 | Have the ability to pursue inter-departmental research.<br>Understand the importance of critical thinking, social interaction, effective citizenship, ethics, environment and sustainability.<br>Acquire a holistic professional carrier<br>To build the necessary competencies and creativity and prepare them to undertake entrepreneurship as a desirable and feasible career option.<br>Able to work effectively as a team member and leader in an ever changing professional environment. |
| PROGRAMME SPECIFIC OUTCOME (PSO): |             |                                 | Identify and analyze the real life problems using the principles of Mathematics and apply the Mathematical concepts in all the fields of learning including higher research.<br>Able to crack competitive exam, lectureship and fellowship exams approved by UGC like CSIR-NET and SET.<br>Develop the thinking capability that meets the specified needs with appropriate consideration to meet the needs of the society, work and communicate effectively in teams.                          |
| S.No                              | Course Code | Course Name                     | Course Outcome   |
| 1                                 | 16MSM101    | Algebra                         | Remember the groups, ring, homomorphism and automorphism of fields.<br>Understand the concept of Euclidean ring, polynomial rings, factorization and ideal theory<br>Apply Gauss lemma, Eisenstein criterion for irreducibility of polynomials over rational<br>Analyze different fields, finite fields, extension of fields, Galois theory<br>Evaluate Trace, Transpose and understand Hermitian, unitary and normal Transformations  |
| 2                                 | 16MSM102    | Real Analysis                   | Remember the techniques of the basic stepping stones to contemporary research.<br>Understanding the sequences of functions which are point wise convergent and uniform convergent<br>Apply the basic results to classical theorems in advanced real analysis<br>Analyze the concept of Lebesgue measure which is later used in developing the theory of Lebesgue integration<br>Apply Lebesgue measure to get the theory of Riemann integration  |
| 3                                 | 16MSM103    | Ordinary Differential Equations | Remember the second order linear equations with ordinary points<br>Understand the concept of Systems of first order equations<br>Analyze linear systems with constant coefficients<br>Apply Successive approximation<br>Evaluate Elementary linear and non linear oscillations   |
| 4                                 | 16MSM104    | Numerical Methods               | Remember Numerical differentiation and integration<br>Apply some methods for solving system of linear and non- linear equations<br>Understand the Solution of ordinary differential equations<br>Analyze Boundary value problems and characteristic value problems<br>Evaluate partial differential equations  |
|                                   |             |                                 | Remember divisibility and about primes<br>Apply the concept of congruence  |

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| 5  | 16MSM105 | Number Theory                  | Understand number theory from an Algebraic view point  |
|    |          |                                | Analyze Quadratic reciprocity  |
|    |          |                                | Evaluate Arithmetic functions  |
| 6  | 16MSM201 | Complex Analysis               | Remember Limits and continuity   |
|    |          |                                | Understand Complex Integration   |
|    |          |                                | Evaluate definite integrals using residuals  |
|    |          |                                | Apply the concept of Partial fractions and Factorization   |
| 7  | 16MSM202 | Partial Differential Equations | 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  |
| 8  | 16MSM203 | Mechanics                      | Apply the concept of Maximum and minimum principles  |
|    |          |                                | Analyze the delta function and Green's function  |
|    |          |                                | Remember energy and momentum   |
|    |          |                                | Understand calculus of variation   |
| 9  | 16MSM204 | Control theory                 | Evaluate the examples of Lagrange's equations of motion  |
|    |          |                                | Apply the concept of separability  |
|    |          |                                | Analyze the transformations  |
|    |          |                                | Develop their knowledge in the basic problems namely, observability, controllability, stability, stabilizability and optimal control.  |
| 10 | 18MSME01 | Matlab                         | Differentiate and solve the problems in linear systems and non-linear systems.   |
|    |          |                                | Find the rank of matrices by using the concepts of observability and controllability.  |
|    |          |                                | Easily understand the linear time varying system and linear time invariant system.   |
|    |          |                                | Analyse non linear systems in optimal control.   |
| 11 | 18MSME02 | Magnetohydro Dynamics          | Remember the notion of loops and conditional statements and apply them by modifying the commands with respect to MATLAB.   |
|    |          |                                | Get deep knowledge about the basics of MATLAB and can able to create arrays and plots using MATLAB.  |
|    |          |                                | Apply the concepts of polynomials, curve fitting and interpolation in MATLAB.  |
|    |          |                                | Implement the mathematical operations via arrays using MATLAB.   |
| 12 | 18MSME03 | Latex                          | Understand kinematics of fluid motion  |
|    |          |                                | Remember fundamental laws of electromagnetism  |
|    |          |                                | Analyse alfvén's theorem law of iso rotation.  |
|    |          |                                | Evaluate incompressible viscous flows in the presence of magnetic fields.  |
| 13 | 18MSMID1 | Operations Research            | Apply the concept of stability and gravitational stability   |
|    |          |                                | Know the basic features of LATEX system.   |
|    |          |                                | Prepare their own document in different environments.  |
|    |          |                                | Understand how to type set mathematics symbols such as roots, arrows, Greek letters and complex math structures such as functions, stacked expressions, matrices, lists of figures and tables. |
| 14 | 16MSM301 | Topology                       | Become a self-learner and begin investigating and learning new LATEX packages on their own.  |
|    |          |                                | Remember operations research   |
|    |          |                                | Understand integer programming problem   |
|    |          |                                | Evaluate Non-linear programming problems   |
|    |          |                                | Analyze simulation modeling and Generation of random numbers   |
|    |          |                                | Develop their abstract thinking skills.  |
|    |          |                                | Provide precise definitions and appropriate examples and counter provide precise definitions and appropriate examples and counter their properties.  |
|    |          |                                | Appreciate the beauty of the mathematical results like Riemann's lemma and understand the dynamics of the proof techniques.  |
|    |          |                                | Acquire knowledge about various types of topological spaces and their properties.  |
|    |          |                                | Understand Tychonoff theorem.  |

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| 15 | 16MSM302 | Fluid Dynamics             | Understand the fundamental equation of viscous compressible fluid  |
|    |          |                            | Get an idea about bernoulli equation, momentum theorems and their various applications   |
|    |          |                            | -Analyze the motion of solid bodies in fluid   |
|    |          |                            | Create a sound knowledge of boundary layer theory  |
|    |          |                            | Apply boundary layer concept.  |
| 16 | 16MSM303 | Mathematical Statistics    | Construct the probability distribution of a random variable based on a real world situation and use it to compute expectation and variance.                        |
|    |          |                            | Compute probabilities based on practical situations using the binomial,normal, F and t distributions.  |
|    |          |                            | Understand the limiting process of distributions and solve related problems.   |
|    |          |                            | Master the syllabus and will be able to read research reports , to do research in this field. It will help the students to face slet, net and csirexaminations.    |
|    |          |                            | Apply test of significance for large samples.  |
| 17 | 18MSM304 | Graph theory               | Understand the preliminaries of both undirected graphs and directed graphs.  |
|    |          |                            | Visualize the concept of planar graph and connectivity.  |
|    |          |                            | Apply the concept of Eulerian graph and Hamiltonian graph.   |
|    |          |                            | Analyze both vertex colouring and edge colouring as well as matchings in graphs.   |
| 18 | 18MSME04 | Differential Geometry      | Understand the analytic representation.  |
|    |          |                            | Analyse the natural equations .  |
|    |          |                            | Apply Eulers theorem.  |
|    |          |                            | Remember elementary theory of surface.   |
|    |          |                            | Solve the equations of codazzi.  |
| 19 | 18MSME05 | Cryptography               | Remember encryption and secrecy.   |
|    |          |                            | Apply basic properties of finite fields  |
|    |          |                            | Understand symmetric key encryption  |
|    |          |                            | Analyse public key cryptography  |
|    |          |                            | Apply protocols and mechanisms   |
| 20 | 18MSME06 | Automata Theory            | Remember about the finite state automata.  |
|    |          |                            | Apply Regular languages  |
|    |          |                            | Understand the conversion of NFA to DFA  |
|    |          |                            | Analyse about the grammar  |
|    |          |                            | Apply formal languages to push down automata   |
| 21 | 16MSMED1 | Web Desining               | Understand the data types -operators and expressions.  |
|    |          |                            | Apply the concept of arrys.  |
|    |          |                            | Analyse working with cookies and user session.   |
| 22 | 16MSM401 | Functional Analysis        | have a clear understanding of Normed linear spaces, Banach spaces,Hilbert spaces and $B(X,Y)$  |
|    |          |                            | understand some important, but simple to follow theorems such as the best understand some important, but simple to follow theorems such as the best theorem.       |
|    |          |                            | have full grasp of the three important theorems of functional analysis namely Hahn-Banach theorem, the uniform boundedness principle and the closed graph theorem. |
|    |          |                            | Apply the concepts and results covered in the course to numerical analysis and operator equations.   |
| 23 | 16MSM402 | Mathematical Methods       | Remember the determinants and specrum of an operator .   |
|    |          |                            | Provide a practical working knowledge of mathematics.  |
|    |          |                            | Derive some classical differential equations by using principles of calculus of variations.  |
|    |          |                            | Solve volterra integral equations and Fredholm integral equations.   |
|    |          |                            | Acquire the mathematical skills required to solve problems arising in daily life.  |
| 24 | 16MSM403 | Fuzzy sets and Fuzzy logic | Apply approximation method   |
|    |          |                            | Remember the crisp set and operations on crisp sets  |
|    |          |                            | Understand the fuzzy sets and fuzzy relations<br>analyse the fuzzy measures.   |

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|    |          |                                   | evaluate measures of fuzziness.  |
|    |          |                                   | Apply the management and decision making.                                    |
| 25 | 18MSME07 | Neural Networks                   | Remember Mathematical Neuron Model   |
|    |          |                                   | Analyze Perceptron Architectures   |
|    |          |                                   | Understand Hebb Rule, Pseudo inverse Rule and Variations of Hebbian Learning |
|    |          |                                   | Apply the concept of Taylor series   |
|    |          |                                   | Evaluate Directional Derivatives   |
| 26 | 18MSME08 | Stochastic Differential Equations | Remember stochastic analogs of classical differential equations.             |
|    |          |                                   | Understand martingale representation theorem and Ito formula.                |
|    |          |                                   | Apply the concept of Ito integral.   |
|    |          |                                   | Solve filtering problems.  |
|    |          |                                   | Analyse the basic properties like Markov property and Dynkin formula.        |
| 27 | 18MSME09 | Non linear Differential Equations | Understand the average in methods.   |
|    |          |                                   | Apply perturbation method.   |
|    |          |                                   | Analyse linear systems.  |
|    |          |                                   | Evaluate the stability of linear systems.                                    |

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

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |   | Have the ability to pursue inter-departmental research.   |
|  |                    |   | Understand the importance of critical thinking, social interaction, effective citizenship, ethics, environment and sustainability.                            |
|  |                    |   | Acquire a holistic professional career  |
|  |                    |   | To build the necessary competencies and creativity and prepare them to undertake entrepreneurship as a desirable and feasible career option.                  |
|  |                    |   | Able to work effectively as a team member and leader in an ever changing professional environment.  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |   | Apply the knowledge of technical fundamentals to solve problems in the domain of Electronics and communication field.   |
|  |                    |   | Analyze and interpret the experimental results and consolidate the information to provide valid outcomes.   |
|  |                    |   | Design and develop innovative electronics products in such a way to meet out the societal needs.  |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                                    | <b>Course Outcome</b>   |
| 1  | 18MES101           | Paper I : Control Systems                             | Students will be able to explain principle of operation for various sensors.  |
|  |                    |   | Students will be able to describe functional blocks of data acquisition system.   |
|  |                    |   | Students will be able to find transfer functions for given system.  |
|  |                    |   | Students will be able to calculate time domain and frequency domain parameter for given system  |
|  |                    |   | Students will be able to predict stability of given system using appropriate criteria.  |
| 2  | 18MES102           | Paper II : MEMS and Power Drives                      | Be familiar with the important concepts applicable to MEMS, their fabrication.  |
|  |                    |   | Be fluent with the design, analysis and Apply the MEMS for different applications.  |
|  |                    |   | Acquire knowledge about fundamental concepts and techniques used in power electronics   |
|  |                    |   | Ability to analyze various single phase and three phase power converter circuits and understand their applications.   |
|  |                    |   | Recognize the role power electronics play in the improvement of energy usage efficiency and the applications of MEMS and power electronics in emerging areas. |
| 3  | 18MES103           | Paper III: 8051 Micro Controller and Its Applications | Draw and describe architecture of 8051 microcontroller.   |
|  |                    |   | Interface various peripheral devices to the microcontrollers.   |
|  |                    |   | Write assembly language program for microcontrollers.   |
|  |                    |   | Design microcontroller based system for various applications.   |
|  |                    |   | Develop interfacing to real world devices   |
|  |                    |   | Analyse and interpret data in communication technology.   |
|  |                    |   | Able to design the different multiplexing schemes in Communication scenario.  |

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| 4  | 18MES104 | Paper IV : Digital Communications                          | <p>Able to analyse and use the various sources of microwave energy and the characters of its operation.</p> <p>Able to exhibit the professional knowledge and accept ethical responsibilities to solve the problems of industry and society.</p> <p>Able to analyze optical source, Fiber and Detector operational parameters.</p>   |
| 5  | 18MESP01 | Practical I: Microcontroller Programming                   | <p>Describe the architecture of 8051 microcontroller and write embedded programs for 8051 microcontroller.</p> <p>Design the interfacing for 8051 microcontroller.</p> <p>Select elements for an embedded systems tool.</p> <p>Analyze abstract problems and apply a combination of hardware and software to address the problem</p> <p>Make use of standard test and measurement equipment to evaluate digital interfaces.</p>  |
| 6  | 18MESP02 | Practical II : Electronics and Communication Systems       | <p>Analyse and interpret data in communication technology.</p> <p>Able to design the different multiplexing schemes in Communication scenario.</p> <p>Able to analyse and use the various sources of microwave energy and the characters of its operation.</p> <p>Able to exhibit the professional knowledge and accept ethical responsibilities to solve the problems of industry and society.</p> <p>Able to analyze optical source, Fiber and Detector operational parameters.</p>  |
| 7  | 15MES201 | Paper V: VHDL Programming                                  | <p>Demonstrate a clear understanding of CMOS fabrication flow and technology scaling.</p> <p>Draw layout of a given logic circuit</p> <p>Design MOSFET based logic circuit</p> <p>Demonstrate an understanding of working principle of operation of different types of memories</p> <p>Demonstrate an understanding of working principles of clocking, power reduction and distribution</p>  |
| 8  | 18MES202 | Paper VI: Embedded Systems and Real Time Operating Systems | <p>Able to design, development, programming and testing of a PIC microcontroller embedded system</p> <p>Able to demonstrate a working knowledge of the necessary steps and methods used to interface a microcontroller system to devices such as motors, sensors, etc.</p> <p>Able to identify the hardware and software components of appropriate embedded system architecture for the given application.</p> <p>Able to Know the hardware Design, Software Development &amp; RTOS for the Embedded Systems.</p> <p>Able to write programs optimized performance of an embedded system and validate.</p>  |
| 9  | 18MESP03 | Practical III: Embedded Systems                            | <p>Students can interface peripheral devices with embedded processors.</p> <p>Students can choose appropriate microcontroller for the design specification with reference to a real time problem.</p> <p>Students can troubleshoot embedded based hardware devices</p>   |
| 10 | 15MESP04 | Practical IV: VHDL Programming                             | <p>Develop an understanding to design Finite State Machines</p> <p>Design a digital system or component in order to meet a set of specification</p> <p>Code combinational and sequential digital circuits using different styles of modeling of VHDL.</p> <p>Test the functionality of their design by writing Test Benches.</p>   |
| 11 | 18MESE01 | Elective I Signals and Systems                             | <p>Understand about various types of signals and systems, classify them, analyze them, and perform various operations on them.</p> <p>Understand use of transforms in analysis of signals and system in continuous and discrete time domain.</p> <p>Evaluate the time and frequency response of Continuous and Discrete time systems which are useful to understand the behaviour of electronic circuits and communication system.</p> <p>Observe the effect of various properties and operations of signals and systems.</p> <p>Understand the limitations of Fourier transform and need for Laplace transform and develop the ability to analyze the system in s-domain.</p> |
| 12 | 18MESE02 | Fiber Optic Communications                                 | <p>To learn the basic elements of optical fiber transmission link, fiber modes configurations and structures.</p> <p>To understand the different kind of losses, signal distortion, SM fibers</p> <p>To learn the various optical sources, materials and fiber splicing</p> <p>To learn the fiber optical receivers and noise performance in photo detector.</p> <p>To learn link budget, WDM, solitons and SONET/SDH network.</p>   |
| 13 | 18MESE03 | Intelligent Instrumentation                                | <p>Understand the concept of Intelligent instrumentation</p> <p>Identify the optimized protocol selection according to the application area</p> <p>Design complete automatic process control system</p> <p>Analyze the PLC systems In industry</p>   |
|    |          |  | <p>Explain the history of the internet and related internet concepts that are vital in understanding web development.</p>  |

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| 14 | 15MESID1 | IDC1: Web Technologies                    | <p>Discuss the insights of internet programming and implement complete application over the web</p> <p>Demonstrate the important HTML tags for designing static pages and separate design from content using Cascading Style sheet.</p> <p>Utilize the concepts of JavaScript and Java.</p> <p>Use web application development software tools i.e.Ajax, PHP and XML etc. and identify the environments currently available on the market to design web sites.</p>   |
| 15 | 18MES301 | Paper VII: Digital Signal Processing      | <p>To understand the key theoretical principles underpinning DSP in a design procedure through design examples and case studies.</p> <p>To learn how to use a powerful general-purpose mathematical package such as MATLAB to design and simulate a DSP systems.</p> <p>To understand the architecture of a digital signal processor and some programming issues in fixed-point digital signal processor in real-time implementation.</p> <p>To Prepare the students to excel in post graduate programmes or to succeed in industry.</p> <p>To implement finite impulse response (FIR) and infinite impulse response (IIR) filters using different structures and to determine the system transfer function and difference equation .</p> |
| 16 | 15MES302 | Paper VIII : ARM Processor                | <p>Understand the features of embedded systems, architecture of ARM7 and applications.</p> <p>Analyse and understand the instruction set and development tools of ARM.</p> <p>Understand the exception, interrupts and interrupt handling schemes.</p> <p>Understand the architectural features of LPC2148 Microcontrollers.</p> <p>Understand the hardware and interfacing peripheral devices to LPC2148</p>   |
| 17 | 18MES303 | Paper IX: Advanced Wireless Communication | <p>Describe the phases of planning and design of mobile wireless networks.</p> <p>List and compare personal area network (PAN) technologies such as Zigbee, Bluetooth etc.</p> <p>Students will details of sensor network architecture, traffic related protocols, transmission technology etc.</p> <p>Understand middleware protocol and network management issues of sensor networks.</p> <p>Able to find various applications of wireless communication and networks in specific area.</p>   |
| 18 | 18MESP05 | Practical V : Digital Signal Processing   | <p>To understand the key theoretical principles underpinning DSP in a design procedure through design examples and case studies.</p> <p>To learn how to use a powerful general-purpose mathematical package such as MATLAB to design and simulate a DSP systems.</p> <p>To understand the architecture of a digital signal processor and some programming issues in fixed-point digital signal processor in real-time implementation.</p> <p>To Prepare the students to excel in post graduate programmes or to succeed in industry.</p> <p>To implement finite impulse response (FIR) and infinite impulse response (IIR) filters using different structures and to determine the system transfer function and difference equation .</p> |
| 19 | 15MESP06 | Practical VI : ARM Processor Programming  | <p>Arm-based microcontrollers as modern embedded computing platforms</p> <p>Understand theSoftware design basics, software engineering principles</p> <p>Ability to choose between different programming techniques for embedded system design</p> <p>Ability to build an Arm-based embedded system and program to satisfy given user specifications</p> <p>Ability to use commercial tools to develop Arm-based embedded systems</p>   |
| 20 | 18MESE04 | Elective II: Nano Electronics             | <p>Explain the fundamental principles of nanotechnology and their application.</p> <p>Understand the synthesis of nanomaterials and their application and the impact of nanomaterials on environment</p> <p>Apply their learned knowledge to develop Nanomaterial's.</p> <p>Identify the principles of processing, manufacturing and characterization of nanomaterials and nanostructures.</p> <p>Evaluate and analyze the mechanical properties of bulk nano structured metals and alloys, nanocomposites and carbon nanotubes.</p>  |
| 21 | 18MESE05 | Opto Electronic Devices                   | <p>understanding basic laws and phenomena in the area of Optoelectronics and Lasers</p> <p>theoretical and practical preparation of students to acquire and apply knowledge and skills in Optoelectronics and Lasers</p> <p>Conducting experiments in laboratory and industrial environment.</p>  |
| 22 | 18MESE06 | Advanced Digital Image Processing         | <p>Describe and explain advanced digital image processing.</p> <p>Design and implement algorithms that perform basic image processing (e.g. noise removal and image enhancement).</p> <p>Design and implement algorithms for advanced image analysis (e.g. image compression, image segmentation).</p> <p>Assess the performance of image processing algorithms and systems.</p>  |
| 23 | 18MESED1 | EDC1: Internet Of Things (IOT)            | <p>To assess the vision and introduction of IoT.</p> <p>To Understand IoT Market perspective.</p> <p>To Implement Data and Knowledge Management and use of Devices in IoT Technology</p> <p>To Understand State of the Art - IoT Architecture.</p>  |

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|    |          |  | To classify Real World IoT Design Constraints, Industrial Automation in IoT.  |
| 24 | 18MES401 | Paper X : Advanced Programmable Logic Controller | Students will be able to describe typical components of a Programmable Logic Controller.<br>Students will be able to use timer, counter, and other intermediate programming functions.<br>Students will be able to design and program basic PLC circuits for entry-level PLC applications.<br>Students will be able to explain and apply the concept of electrical ladder logic, its history, and its relationship to programmed PLC instruction.<br>Students will be able to design and program a small, automated industrial production line. |
| 25 | 18MESE07 | Elective III: MATLAB Programming                 | To familiarize the student in introducing and exploring MATLAB & LABVIEW softwares.<br>To enable the student on how to approach for solving Engineering problems using simulation tools.<br>To prepare the students to use MATLAB/LABVIEW in their project works.<br>To provide a foundation in use of this softwares for real time applications.   |
| 26 | 18MESE08 | High Performance Communication                   | Provide the various high speed digital access and broadband technologies<br>Switching techniques used for communication<br>Congestion control<br>Performance issues and quality of service required for better performance of high speed networks.<br>Understand how networking research is done  |
| 27 | 18MESE09 | RF System Design                                 | Analyze different wireless communication systems<br>Exemplify different receiver and transmitter architectures<br>Calculate basic radio specifications in terms of, gain, noise, signal-to-noise ratio, power<br>Describe analog and digital modulation techniques and modulation schemes<br>Understand and describe mathematically the relationship between baseband signals and bandpass signals  |

#### MBA

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| <b>PROGRAMME OUTCOME (PO)</b>           |                    |                                      | On successful completion of the programme the students will have,<br><br>The ability to apply and understand the business acumen gained in practice solves managerial issues.<br>The ability to communicate and negotiate effectively and upgrade their professional and managerial skills in their workplace.<br>The ability to take up challenging assignments even in a dynamically unstable environment.<br><br>To understand one's own ability to set achievable targets and complete them.<br>To acquire in-depth knowledge of business management and entrepreneurship embedded with ethics and fulfilling business career pursue lifelong learning. |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO)</b> |                    |                                      | business management and entrepreneurship embedded with ethics and a sense of social commitment and to make them to strive towards personal victory and value creation to society.<br>due importance for lateral thinking so that management graduates see things from a perspective which are not just simple but effective and will gain an understanding of the global arena and competitive environments which are<br>& logistics management and demonstrate leadership and team membership skills which are ardently required for effective implementation and coordination of organizational activities and communication skills to communicate        |
| <b>S.No</b>                             | <b>Course Code</b> | <b>Course Name</b>                   | <b>Course Outcome</b>   |
| 1                                       | 16MBA101           | BUSINESS ORGANISATION AND MANAGEMENT | Understanding the concept of business, forms of business<br>Knowing the concept of management, Evolution of management, functions of a manager.<br>Understanding the concept of planning, process of planning, forms of organisational structure.<br>Understanding staffing, recruitment and selection process, Knowing the leadership qualities, application of case studies.<br>Know about controlling techniques, the concept of organisational change and development, application of case studies.   |
| 2                                       | 16MBA102           | ORGANISATIONAL BEHAVIOUR             | Understanding of dynamics of OB, Opportunities of OB<br>Know the concept of intelligence, awareness of personality types, application of psychometric tests.<br>Knowing the concept of perception, attitude formation and learning theories.<br>Understanding individual behavior, dynamics of groups and effective team building, conflicting situations, Ethical issues in organisational culture.<br>Awareness on Organisational change, organisational politics, coping with stress and the motivational theories.  |
|   |                    |                                      | Understand the relative importance of Managerial Economics<br>Introduce the microeconomic concepts - demand, pricing, cost determination, entry into and exit from markets, price - output decisions.   |



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| 3  | 16MBA103 | MANAGERIAL ECONOMICS                 | 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.<br>Understand the concept of profits and analysis of profits.<br>Know about Macro economic variables and its real time impact on economy and government policies.  |
| 4  | 16MBA104 | ACCOUNTING FOR MANAGERS              | Apply the comprehensive treatment of accounting principles, techniques and practices<br>Infer the circumstances providing for increased exposure to final accounts and depreciation<br>preventative internal control measures<br>Develop Budget and analyse Cost variances.<br>Basic concepts of Management Accounting & Interpret the financial statements and report the findings.   |
| 5  | 16MBA105 | EXECUTIVE COMMUNICATION              | Understand the basics of communication process<br>Gain knowledge about the non-verbal communication techniques<br>Understand the various types of business letters<br>Develop job application letter, bio data, preparation for Interview<br>Basic concepts of meetings, agenda preparation and communications in an organisation  |
| 6  | 16MBAID1 | QUANTITATIVE METHODS FOR MANAGEMENT  | enable students will acquire the knowledge of Mathematics of finance and Mathematica concepts of Differentiation and integration<br>Analyze real world scenarios and determine the appropriate type of analytical problem solving techniques to utilize<br>Gain knowledge on statistical concepts of correlation and regression equations for business<br>Make the students to understand the concepts of Time series , Trend analysis and Index numbers for Business analysis<br>Develop the knowledge of statistical analysis for research in order to write the interpretation and solving the hypothesis   |
| 7  | 18MBAP01 | COMPUTER APPLICATION FOR BUSINESS    | Gain knowledge on using various tabs in MS-Word & improve business communication skills in writing emails, sending e-mails.<br>Prepare them to develop creative and effective presentations<br>Knowledge on database maintaining using Access.   |
| 8  | 16MBA201 | PRODUCTION AND OPERATIONS MANAGEMENT | Improving their conceptual skills, understanding and application of tools and techniques of operations management in business practices in real time.<br>Understanding and application of factors in the design of effective operating systems based on location and layout.<br>Understand the concept of material management & its strategies<br>Apply Quality control Techniques to attain productivity optimization<br>Understand the concepts of JIT, Kanban, ISO standards.<br>Analyze the finances of individual corporations both in terms of their performance<br>and capital requirements   |
| 9  | 16MBA202 | MARKETING MANAGEMENT                 | Gain a solid understanding of key marketing concepts and skills.<br>Develop the students' skills in applying the analytic perspectives, buyer behaviour decision tools, and concepts of marketing to decisions involving segmentation, targeting and positioning.<br>Develop an understanding of the underlying concepts, strategies and the issues involved in product life cycle, new product development<br>Develop strong marketing promotion plans and persuasively communicate your recommendations and rationale<br>Understand the channel of distribution to reach the target audience. Recent Marketing terms.<br>Educate on the process of handling disputes, laws pertaining to Employees welfare and employment in the Organization. |
| 10 | 16MBA203 | FINANCIAL MANAGEMENT                 | Understand both the theoretical and practical role of financial management in the business firm<br>Apply financial management concepts and tools to the Problems faced by a manager in Budgeting decisions<br>Understand the outside influences of economic and political factors on various sources of funds with their costs<br>Justify the contemporary financial management strategies which are preferred to specific projects<br>Analyze the finances of individual corporations both in terms of their performance and capital requirements   |
| 11 | 16MBA204 | HUMAN RESOURCE MANAGEMENT            | Develop a meaningful understanding of HRM theory, functions and practices.<br>Apply Human Resource Planning, Recruitment and Selection and skills across various types of organizations.<br>Know about the Interview process, Induction and Orientation, Training techniques.<br>Develop understanding on performance appraisal and its methods<br>Educate on the process of handling disputes, laws pertaining to Employees welfare and employment in the Organization.   |
|    |          |                                      | Understand the basic framework of research process   |

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| 12 | 16MBA205 | RESEARCH METHODS FOR MANAGEMENT         | To formulate the hypothesis for business problems ,know the scaling techniques.  |
|    |          |   | Understand the sampling techniques, preparation of questionnaire and coding techniques   |
|    |          |   | Apply various parametric tests to test hypothesis  |
|    |          |   | Develop necessary critical thinking skills in order to formulate the report writing  |
| 13 | 16MBAID2 | QUANTITATIVE TECHNIQUES                 | 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   |
|    |          |   | Make the students to understand the concepts of Inventory Models Probability Inventory Models concept.   |
|    |          |   | Develop the knowledge of Simulation and Queuing Theory for decision making.  |
| 14 | 16MBAP02 | EXCEL FOR MANAGERS                      | Able to demonstrate working knowledge in Microsoft excel   |
|    |          |   | Able to use in-built functions in Excel for simple decision making, perform investment analysis using Excel, validate data, use datatbase operations and present the processed information using charts. |
|    |          |   | Gain knowledge about basics of Tally   |
|    |          |   | Knowledge on working with Accounting problems(Balance Sheet, P&L Account, Trail Balance)in Tally   |
| 15 | 16MBA301 | Business Environment and Ethics         | 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  |
|    |          |   | Undestand the role and fuctions of regulatory agencies   |
| 16 | 16MBA302 | Legal aspects of Business               | understand the basics that pertained to business law   |
|    |          |   | Will equip the students in learning the concepts of contracts and law that pertained business  |
|    |          |   | Better awareness about the law that pertained to consumer  |
|    |          |   | Understand the functionality of the business   |
|    |          |   | Understand various terminology and techniques that areused in business   |
| 17 | 16MBAEA1 | Digital Advertising and Sales Promotion | Understand the basics of advertisement   |
|    |          |   | Understand the Ad Copy elements, Adverting test measurements   |
|    |          |   | Understand about the advertising media, reach and frequency  |
|    |          |   | understand the latest versions in advertising  |
|    |          |   | To know the various sales promotion tools in marketing   |
| 18 | 16MBAEA2 | Retail Management                       | An overview about Retail Industry  |
|    |          |   | Understand the evolution in retail industry  |
|    |          |   | An insights about setting of retail stores   |
|    |          |   | understand the concepts of pricing in retail industry  |
|    |          |   | Understand the mean of communication and supply of goods in retailing  |
| 19 | 16MBAEB1 | Workplace Ethics                        | Understand the principle of Ethics   |
|    |          |   | Awareness about unethical behaviour in workplace   |
|    |          |   | understand the Ethics that pertained to top level managers   |
|    |          |   | Understand Team based Ethics   |
|    |          |   | Awareness about the Ethics that pertained to information technology  |
| 20 | 16MBAEB2 | Labour Welfare and Industrial Relation  | Understand about industrial relation and trade unions  |
|    |          |   | Awareness about the problems of employee in industrial settings  |
|    |          |   | Undertand the basics of law that pertained to wages, bonus,pension & sexual harassment.  |
|    |          |   | Understand the various retirement benefits,maternity benefit, ESI for employee   |
|    |          |   | Understand the rule that pertained to special service industry establishment   |
|    |          |   | This unit will help to understand Investment alternatives Choice and Evaluation and its risk and return concepts.  |
|    |          |   | This unit will help to get depth knowledge about Securities Markets and Methods of floating new issues through IPO.  |

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| 21 | 16MBAEC1 | Security Analysis and Portfolio Management      | <p>This unit will help to know the factors influencing Fundamental Analysis and Applied Valuation Techniques</p> <p>This unit will help to know the factors influencing Technical Analysis through charting methods.</p> <p>On completion of the course, the students are expected to be familiar with different concepts of Portfolio Management. They would understand how to develop an efficient portfolio based upon risk and return criteria</p> <p>Awareness about schemes that available for retrieving sick industry</p>                                    |
| 22 | 16MBAEC2 | Advanced Financial Service                      | <p>(NBFCs), Financial Inclusion, Micro finance and its implication on the economy. This course will enable the students to manage and avail these services in their professional and personal life.</p> <p>Compare Hire-Purchasing and Leasing concepts.</p> <p>This unit will help to know about the Process of Mutual Funds and RBI Guidelines.</p> <p>This course will help the students meaningfully participate in the Stages of Venture Capital and its risk.</p> <p>This unit will help to know the Reasons, Difference between Mergers &amp; Acquisition</p> |
| 23 | 16MBAED1 | Supply Chain and Logistics Management           | <p>To understand the supply chain management</p> <p>To get depth knowledge about strategic warehousing</p> <p>To know the work of logistical operations</p> <p>To know the role of transport in logistics</p> <p>To create awareness of ERP system design</p>  |
| 24 | 16MBAED2 | Export Trade and Documentation                  | <p>Help to know the preliminary process for export business.</p> <p>Help to know the Generation of Foreign Enquiries.</p> <p>This unit focussed Export finance and Forex.</p> <p>Help to know the pre shipment documentation &amp; Insuring Goods against marine risk.</p> <p>Help to know the EXIM policy and trade zones.</p>  |
| 25 | 16MBA401 | Entrepreneurship and Project Management         | <p>Understand the basic concepts of Entrepreneurship</p> <p>Understand the scope of entrepreneurship</p> <p>understand the project selection procedure</p> <p>Awareness about the financial institution in rendering financial services</p> <p>Awareness about schemes that available for retrieving sick industry</p>   |
| 26 | 16MBA402 | Strategic Management                            | <p>The students are able to learn the fundamentals of strategic management using the case method.</p> <p>Analyse the Environmental factors in strategic management using in case method.</p> <p>Understand the corporate strategies and the frame work of strategic management.</p> <p>Understand the organizational strategies and how to implement the strategy.</p> <p>The students are able to understand and manage the technology and innovation in strategic management.</p>  |
| 27 | 16MBAEA3 | Agricultural and Rural Marketing                | <p>Understanding the concepts of Agricultural marketing</p> <p>Knowing the storage, warehousing and financing facilities in Agricultural Marketing</p> <p>Understanding the concept of rural marketing, marketing mix and rural consumer behaviour</p> <p>Get to know about the products classification and pricing strategies of rural market</p> <p>Knowing the rural logistics and rural retailing</p>  |
| 28 | 16MBAEA4 | Social Media and Search Engine Marketing        | <p>Get to know about the concept of Social Media communication mix and marketing</p> <p>Understanding the concept of Segmenting, Search Engine Optimisation</p> <p>Get to know about Web Analytics, Creation of URL</p> <p>Understand about Search Engine Marketing &amp; its benefits</p> <p>Get knowledge about Ad Groups, Bidding tools.</p>  |
| 29 | 16MBAEB3 | Personal Growth and Interpersonal Effectiveness | <p>Understand about the self concepts &amp; Strategies</p> <p>Know about the concepts of communication and non-verbal communication</p> <p>Understand the assertive training tools</p> <p>Understanding the concepts &amp; Application of Transactional Analysis tools and techniques</p> <p>Get to know about counselling and its methods</p>   |
|    |          |   | Understand about the HRA concepts  |

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| 30 | 18MBAEB4 | Human Resource Accounting            | Know about the human resource planning and capital investment  |
|    |          |                                      | Understand the investment approach, human variables and cost concepts  |
|    |          |                                      | Understanding the concepts of HRA Implementation & Appraisal procedures  |
|    |          |                                      | Get to know about HRA Software, P&L Account concepts   |
| 31 | 16MBAEC3 | Risk Management and Insurance        | Risk identification and Risk management techniques in Life,Health  |
|    |          |                                      | This unit focussed Property and liability risk Management.   |
|    |          |                                      | Help to know the Risk Management of Auto owners and home owners policy coverage                                  |
|    |          |                                      | This unit focused Health Insurance,Annuities and Employees benefit.  |
| 32 | 16MBAEC4 | Principles and Practices of Banking. | Recent scenario in Life and General insurance industry in India , IRDA.  |
|    |          |                                      | Help to understand Indian Banking system and structure in India.   |
|    |          |                                      | This unit focussed Banker and customer relationship,Obligation.  |
|    |          |                                      | Help to know the Banking Technology as MICR,Cheque Transaction,ECS, EFT, NEFT & RTGS                             |
| 33 | 16MBAED3 | Domestic Logistics                   | How Asset Liability Management(ALM) in banks are working.  |
|    |          |                                      | International banking Techniques in Facilitie for Exporters and Importer   |
|    |          |                                      | Help to know the complete process in Vehicle Selection,Types and Characteristics and Acquisition.                |
|    |          |                                      | Reasons for Road Freight Transport Vehicle Costing ,Zero-Based Budget helps us to control the cost reduction.    |
| 34 | 18MBAED4 | International Logisitics Management  | Procedures for Operator Licensing,Driver Licensing ,Road Transport Directive,Tachographs and Vehicle Dimensions. |
|    |          |                                      | This unit focussed Information System Applications as GPS, RFID  |
|    |          |                                      | Invoicing &Information Flow in international level and Coordinationwith Terminals.                               |
|    |          |                                      | Understand the concept of marketing logisitics, international supply chain management                            |
|    |          |                                      | Helps to know about the transportation and containerization  |
|    |          |                                      | Understand the shipping procedures and documentation   |
|    |          |                                      | Get to know about the air transport procedures   |
|    |          |                                      | Understand about inventory control and management  |

#### M.Sc (Software Systems)

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| <b>PROGRAMME OUTCOME (PO):</b>           |                    |                                   | On completion of M.Sc (SS) degree, the graduates will be able to:   |
|  |                    |                                   | Apply the knowledge of mathematics and computing fundamentals to various real life applications for any given requirement                 |
|  |                    |                                   | Design and develop applications to analyze and solve all computer science related problems  |
|  |                    |                                   | Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects     |
|  |                    |                                   | Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data             |
|  |                    |                                   | Integrate and apply efficiently the contemporary IT tools to all computer applications  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |                                   | On completion of M.Sc (SS) degree, the graduates will be able to:   |
|  |                    |                                   | Involve in perennial learning for a continued career development and progress as a computer professional.                                 |
|  |                    |                                   | Function effectively both as a team leader and team member on multi disciplinary projects to demonstrate computing and management skills. |
|  |                    |                                   | Utilize the computing knowledge efficiently in projects with concern for societal, environmental, and cultural aspects                    |
| <b>S.No</b>                              | <b>Course Code</b> | <b>Course Name</b>                | <b>Course Outcome</b>   |
| 1  | 15MSS101           | Fundamentals of Office Automation | Understand about the usage of input and ouput devices   |
|  |                    |                                   | Clear idea about multimedia aspects   |
|  |                    |                                   | Know the difference about memory ram & rom  |
|  |                    |                                   | Understand about the structure of network organization  |
|  |                    |                                   | Knew about the aspects of basic internet activities   |
|  |                    |                                   | Able to know the cobol keywords   |
|  |                    |                                   | Able to apply the arithmetic operation in cobol program   |

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| 2  | 15MSS102 | COBOL Programming                    | Acquired knowledge in file control entries                        |
|    |          |                                      | Got an awareness about subroutines in cobol                       |
|    |          |                                      | Able to do the cobol program with acquired knowledge              |
| 3  | 15MSSP01 | Office Automation                    | Knowledge to create a table in word                               |
|    |          |                                      | Able to use the formatting  |
|    |          |                                      | Design a pivot table for a sales report.                          |
|    |          |                                      | Can perform simple and compound interest program                  |
|    |          |                                      | Can perform organization chart work.                              |
| 4  | 15MSSP02 | COBOL Programming                    | Able to apply the arithmetic operation in cobol program           |
|    |          |                                      | Having an enough knowledge to create a sum of digit program       |
|    |          |                                      | Creating a program for student data                               |
|    |          |                                      | Acquired knowledge in file control program                        |
|    |          |                                      | Having an enough knowledge to create an inventory control program |
|    |          |                                      | Able to basic pay calculation program                             |
| 5  | 15MSS201 | Programming in C                     | Acquired knowledge in decision statements                         |
|    |          |                                      | Acquired knowledge in loop control statements                     |
|    |          |                                      | Understand the concept of string and its function                 |
|    |          |                                      | Adequate knowledge in function and recursion                      |
|    |          |                                      | Applying the knowledge to do file read and write                  |
| 6  | 15MSS202 | Data Structures                      | Know the basic concept of data structure                          |
|    |          |                                      | Able to explain list and queues                                   |
|    |          |                                      | Understand the trees work in data structure                       |
|    |          |                                      | Understand the searching work in data structure                   |
|    |          |                                      | Able to do flow problem   |
| 7  | 15MSSP03 | Practical 3: C                       | Able to create a program using various operators                  |
|    |          |                                      | Adequate knowledge to apply switch statements                     |
|    |          |                                      | Adequate knowledge to use string functions                        |
|    |          |                                      | Strong in pointers work   |
|    |          |                                      | Understand the working functions of file program                  |
| 8  | 15MSSP04 | Practical 4 : Data Structure         | Adequate knowledge to create a program using arrays               |
|    |          |                                      | Adequate knowledge to create a program using queues               |
|    |          |                                      | Able to create a program using list                               |
|    |          |                                      | Able to create a program using search option                      |
|    |          |                                      | Able to perform sorting operation                                 |
|    |          |                                      | Adequate knowledge to perform datastructure operation using c     |
| 9  | 15MSS301 | Object Oriented Programming With C++ | Able to differentiate c and c++                                   |
|    |          |                                      | Understand the concept of classes and objects                     |
|    |          |                                      | Identify the work of inheritance                                  |
|    |          |                                      | Adequate knowledge in virtual functions                           |
|    |          |                                      | Adequate knowledge in exception handling                          |
| 10 | 15MSS302 | Database management Systems          | Know about pl/sql   |
|    |          |                                      | Understand about built in sql functions                           |
|    |          |                                      | Got an aware of cursor  |
|    |          |                                      | Know about the rdbms concepts                                     |
|    |          |                                      | Able to apply queries in rdbms                                    |

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| 11 | 15MSSP05 | Practical V- C++ Programming                        | Able to create a member function  |
|    |          |   | Perform operator overloading function                                     |
|    |          |   | Adequate knowledge to create a program using friend function              |
|    |          |   | Adequate knowledge to create a program using inheritance                  |
|    |          |   | Able to create a file operation program                                   |
|    |          |   | Able to create a program using virtual function                           |
| 12 | 15MSSP06 | Practical VI:Relational Database Management Systems | Able to create a simple vb program  |
|    |          |   | Performing an calculator program  |
|    |          |   | Able to create a simple gaming using vb program                           |
|    |          |   | Can create a notepad application using vb                                 |
|    |          |   | Can create a rdbms table  |
|    |          |   | Can able to retrieve the value using queries                              |
| 13 | 15MSS401 | Software Engineering                                | Having an idea to differentiate hardware and software features            |
|    |          |   | Clear knowledge in the concept of software engineering task               |
|    |          |   | Clear knowledge in the concept of software designing                      |
|    |          |   | Know the concept of golden rules  |
|    |          |   | Understand the importance of testing                                      |
| 14 | 15MSS402 | Analysis and Design of Information System           | Know the importance of analysis   |
|    |          |   | Clear knowledge in the concept of software designing                      |
|    |          |   | Know the importance of information management                             |
|    |          |   | Identify the structure of the design                                      |
|    |          |   | Enough knowledge to make the design through design                        |
| 15 | 15MSS502 | Web Programming                                     | Got a basic idea about the webpublishing foundation                       |
|    |          |   | Able to differentiate client and server side scripting                    |
|    |          |   | Know about plug ins in html   |
|    |          |   | Got an awareness in html,css  |
|    |          |   | Understand the evolution of xml   |
| 16 | 15MSSP09 | Practical VII : Web Programming                     | Able to create a web page by using basic aspects                          |
|    |          |   | Adequate knowledge to perform java script operations.                     |
|    |          |   | Can able to perform xml application                                       |
|    |          |   | Able to create a web page by using form validations                       |
|    |          |   | Strong knowledge in the concept of string function                        |
| 17 | 15MSS501 | Computer Graphics                                   | Understand the basics of graphic system                                   |
|    |          |   | Able to explain the two dimensional transformation                        |
|    |          |   | Adequate knowledge in 3d concepts   |
|    |          |   | Having an idea to implement 3d algorithm                                  |
|    |          |   | Can apply the model and application concept while performing programming. |
| 18 | 15MSS403 | JAVA Programming                                    | Know about object oriented methodology                                    |
|    |          |   | Understand about java basics  |
|    |          |   | Clear idea in exception handling  |
|    |          |   | Clear idea in network programming in java                                 |
|    |          |   | Understand about the applets programming                                  |
| 19 | 15MSS503 | Data Communication and Networking                   | Understand about tcp/ip models  |
|    |          |   | Know about the working procedure of data link layer                       |
|    |          |   | Know about the working procedure of network layer                         |

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|    |          |                               | Clear knowledge in transport layer                                    |
|    |          |                               | Adequate knowledge in application layer                               |
| 20 | 15MSSP08 | Practical 8:Computer Graphics | Can do simple transformations   |
|    |          |                               | Can perform line drawing algorithms                                   |
|    |          |                               | Enough knowledge to perform windowing and clipping                    |
|    |          |                               | Able to create polygon clipping                                       |
|    |          |                               | Implementation of an analog clock can be done                         |
|    |          |                               | Successfully simple animation can be done                             |
| 21 | 15MSSP07 | Practical 9:JAVA Programming  | Implementaion of program can be done by using class & Objects         |
|    |          |                               | Able to string manipulations  |
|    |          |                               | Creating a program using inheritance                                  |
|    |          |                               | Creating a program using Packages                                     |
|    |          |                               | Apply the knowledge to create a program using multithreading concepts |
| 22 | 15MSSE01 | Principles of Compiler Design | Understand the concept of compiler and its type                       |
|    |          |                               | Know the role of the parser   |
|    |          |                               | Clear idea in intermediate languages                                  |
|    |          |                               | Understand the concept of runtime                                     |
|    |          |                               | Clear idea in optimization  |
| 23 | 15MSSE02 | J2EE                          | Acquired the basic knowledgein Java and J2EE platform                 |
|    |          |                               | Know about ORB protocol   |
|    |          |                               | Know about servlet programming  |
|    |          |                               | Clear in java transaction   |
|    |          |                               | Adequate knowledge in commands,items and event                        |
| 24 | 15MSSE03 | Web Services                  | Clear in xml technology family  |
|    |          |                               | Know the architecting webservices                                     |
|    |          |                               | Understand the concept of webservice building blocks                  |
|    |          |                               | Know about E business   |
|    |          |                               | Understand about content management                                   |
| 25 | 15MSS601 | Client server Computing       | Understand the basics of client and server                            |
|    |          |                               | Understand the basics of hardware and software                        |
|    |          |                               | Know about server requirementa  |
|    |          |                               | Got an idea to develop the application using tools                    |
|    |          |                               | Clear about production requirement concepts                           |
| 26 | 15MSS602 | Web Designing                 | Got a basic idea about the webpublishing foundation                   |
|    |          |                               | Able to differentiate client and server side scripting                |
|    |          |                               | Know about plug ins in HTML   |
|    |          |                               | Got sn awareness in HTML,SCTML  |
|    |          |                               | Understand the evolution of XML                                       |
| 27 | 15MSS603 | Vb.net                        | Adequate knowledge in form controls                                   |
|    |          |                               | Clear knowledge in functions  |
|    |          |                               | Understand the concept of structured programming                      |
|    |          |                               | Able to apply built in function                                       |
|    |          |                               | Got an awareness of working with files                                |
|    |          |                               | Know about the types of projects                                      |
|    |          |                               | Able to do activity planning  |

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| 28 | 15MSS604 | Software project management              | Understand about the risk management  |
|    |          |  | Understand about the configuration management   |
|    |          |  | Adequate knowledge to do casestudy  |
| 29 | 15MSSP10 | Practical 10:Web Designing               | Able to create a web page by using basic aspects  |
|    |          |  | Adequate knowledge to perform java script operations.   |
|    |          |  | Can able to perform XML application   |
|    |          |  | Able to create a web page by using form validations   |
|    |          |  | Strong knowledge in the concept of string function  |
| 30 | 15MSSP11 | Practical 11:Vb.net                      | Professional skills gained to implement conditional statements  |
|    |          |  | Knowledge acquired to apply looping statements  |
|    |          |  | Professional skills gained to implement Functions   |
|    |          |  | Knowledge acquired to create a program using arrays   |
|    |          |  | Able to apply the controls in program   |
| 31 | 15MSSE04 | Elective-II: Information System Security | Know about basics and history of information system security  |
|    |          |  | Understand the importance of security considerations  |
|    |          |  | Know about logical access control   |
|    |          |  | Understand about the firewalls  |
|    |          |  | Strong knowledge in privacy issues of smart card applications   |
| 32 | 15MSSE05 | Distributed Computing                    | Know about the basics of distributed computing  |
|    |          |  | Clear idea about model of a computation   |
|    |          |  | Clear in socket api   |
|    |          |  | Understand the concept of group communication   |
|    |          |  | Know the functionalities of the distributed systems   |
| 33 | 15MSSE06 | Management Information System.           | Clear idea in marketing and management  |
|    |          |  | Able to analyze the business data management  |
|    |          |  | Understand the functioning of business organization   |
|    |          |  | Clear knowledge in managing strategies  |
|    |          |  | Clear knowledge in laws regarding business process  |
| 34 | 15MSSPR1 | Project and Viva-Voce                    | Adequate knowledge to create the software applications  |
|    |          |  | Strong knowledge in programming concept   |
|    |          |  | Strong knowledge in database creation   |
|    |          |  | Adequate knowledge to do forms creation and testing   |
|    |          |  | Adequate knowledge to explain their project with external and having boldness to survey in the it world |
| 35 | 15MSS801 | Middleware Technologies                  | Know the basics of java 2 enterprise edition overview   |
|    |          |  | Understand the concept of java servlet  |
|    |          |  | Know about ejb  |
|    |          |  | Clear in the concept of architecting webservice   |
|    |          |  | Know about struts   |
| 36 | 15MSS802 | ASP.NET                                  | Gained an idea about basics of programming  |
|    |          |  | Know the data types in programming  |
|    |          |  | Able to differentiate other programming with current programming  |
|    |          |  | Able to do the creation of basic coding   |
|    |          |  | Adequate knowledge to create a simple application   |
|    |          |  | Know the importance of analysis and objects   |
|    |          |  | Clear knowledge in the concept of software designing  |



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| 37 | 15MSS803 | Object Oriented Analysis and Design Using UML    | Know the importance of information management                  |
|    |          |  | Identify the structure of theuml                               |
|    |          |  | Enough knowledge to make the design through design             |
| 38 | 15MSS804 | WAP and XML                                      | Understand the rise of mobile data                             |
|    |          |  | Know about wireless markup language                            |
|    |          |  | Clear knowledge in using variables                             |
|    |          |  | Having an idea to design a user interface                      |
|    |          |  | Know about wireless technology applications                    |
| 39 | 15MSSP12 | Practical 12:Middleware Technologies             | Creating a program to get user name and password               |
|    |          |  | Adequate knowledge to create a program using jsp tags          |
|    |          |  | Adequate knowledge to implement session bean                   |
|    |          |  | Adequate knowledge to implement entity bean                    |
| 40 | 15MSSP13 | Practical 13:ASP.NET                             | Adequate knowledge to implement message driven bean            |
|    |          |  | Professional skills gained to implement conditional statements |
|    |          |  | Knowledge acquired to apply looping statements                 |
|    |          |  | Professional skills gained to implement functions              |
|    |          |  | Knowledge acquired to create a program using arrays            |
| 41 | 15MSSE07 | Elective - III Data Mining And Data warehousing/ | Able to apply the controls in program                          |
|    |          |  | Know the basic data mining task                                |
|    |          |  | Understand about kdd process                                   |
|    |          |  | Adequate knowledge in neural network algorithm                 |
|    |          |  | Adequate knowledge in neural decision tree algorithm           |
| 42 | 15MSSE08 | Grid computing                                   | Strong idea in genetic algorithm work process                  |
|    |          |  | Know about early grid activities                               |
|    |          |  | Clear in grid computing anatomy                                |
|    |          |  | Adequate knowledge in ogsa                                     |
|    |          |  | Know about the technical details of ogsi                       |
| 43 | 15MSSE09 | Artificial intelligence and Expert systems       | Know about the golbus gt3 tool kit                             |
|    |          |  | Know the basics of ai problems                                 |
|    |          |  | Understand the concept of heuristic search technique           |
|    |          |  | Adequate knowledge about representation and mapping            |
|    |          |  | Having an idea to apply and using predicate logic              |
| 44 | 15MSS901 | Software Testing                                 | Clear idea in expert system                                    |
|    |          |  | Know the software testing fundamentals                         |
|    |          |  | Know the basics of software testability                        |
|    |          |  | Clear in blackbox testing concept                              |
|    |          |  | Adequate knowledge in software testing strategies              |
| 45 | 15MSS902 | Software Quality Assurance                       | Able to identify software fault tolerances                     |
|    |          |  | Clear knowledge in white box testing                           |
|    |          |  | Clear knowledge in black box testing                           |
|    |          |  | Acquired knowledge to perform performance testing              |
|    |          |  | Know the measures of quality assurance                         |
|    |          |  | Know to handling the packaging and delivery                    |
|    |          |  | Know the basics of php   |
|    |          |  | Adequate knowledge to apply conditional statements             |

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| 46 | 15MSS903 | PHP Programming                     | Adequate knowledge to use arrays and functions<br>Understand about session and cookies<br>Understand the steps to create basic applications   |
| 47 | 15MSS904 | Data Mining and Warehousing         | Know the basic datamining task<br>Understand about kdd process<br>Adequate knowledge in neural network algorithm<br>Adequate knowledge in neural decision tree algorithm<br>Strong idea in genetic algorithm work process   |
| 48 | 15MSSP14 | Practical 14:Software Testing Tools | Having an adequate knowledge to create gui check point for multiple windows<br>Adequate knowledge to perform loop testing<br>Adequate knowledge to perform stress testing<br>Acquired the professional skills to do unit testing<br>Acquired the professional skills to do system testing                 |
| 49 | 15MSSP15 | Practical 15:PHP Programming        | Can create a simple program<br>Able to create a program for random number<br>Can create a program to show the date and time<br>Can able to use the basic concept in website designing<br>Having an adequate knowledge to create a website   |
| 50 | 15MSSE10 | Elective -IV Security in Computing  | Know about the characteristics of computer intrusion<br>Clear in the concept of program security<br>Understand about the designing of trusted operating systems<br>Clear in database security<br>Understand about security in networks  |
| 51 | 15MSSE11 | Cloud computing                     | Know the basics of cloud computing<br>Clear in the concept types of clients<br>Know the working procedure of cloud in several organization<br>Know the function and limitation of cloud work<br>Understand the concept of cloud environment steps   |
| 52 | 15MSSE12 | Neural Networks and fuzzy logic     | Clear in fundamentals of neural networks<br>Understand the concept of back propagation networks<br>Know about adaptive reason theory<br>Knowledge in fuzzy set theory<br>Adequate knowledge in crisp logic  |
| 53 | 15MSSPR2 | Project and Viva-Voce               | Adequate knowledge to create the software applications<br>Strong knowledge in programming concept<br>Strong knowledge in database creation<br>Adequate knowledge to do forms creation and testing<br>Adequate knowledge to explain their project with external and having boldness to survey in the world |

#### Master of Computer Application (MCA)

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| PROGRAMME OUTCOME (PO): | On completion of MCA degree, the graduates will be able to:   |
|                         | Apply the knowledge of mathematics and computing fundamentals to various real life applications for any given requirement             |
|                         | Design and develop applications to analyze and solve all computer science related problems  |
|                         | Design applications for any desired needs with appropriate considerations for any specific need on societal and environmental aspects |

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|  |                    |   | Analyze and review literatures to invoke the research skills to design, interpret and make inferences from the resulting data |
|  |                    |   | Integrate and apply efficiently the contemporary IT tools to all computer applications  |
| <b>PROGRAMME SPECIFIC OUTCOME (PSO):</b> |                    |   | On completion of MCA degree, the graduates will be able to:   |
|  |                    |   | Solve and work with a professional context pertaining to ethics, social, cultural and cyber regulations                       |
|  |                    |   | Function competently as an individual and as a leader in multidisciplinary projects.  |
|  |                    |   | Apply the inherent skills with absolute focus to function as a successful entrepreneur.                                       |
| <b>S.No</b>                              | <b>COURSE CODE</b> | <b>NAME OF THE COURSE</b>                     | <b>COURSE OUTCOME</b>   |
| 1  | 15MCA101           | Digital Electronics and computer Organization | Got an idea about number system concept   |
|  |                    |   | Know about the designing of a circuit   |
|  |                    |   | Know about the register transfer and micro operations   |
|  |                    |   | Clear idea in the structure of input&ouput organization   |
|  |                    |   | Clear idea in the structure of memory organization  |
| 2  | 15MCA102           | Programming Language I - C                    | Acquired knowledge in decision statements   |
|  |                    |   | Acquired knowledge in loop control statements   |
|  |                    |   | Understand the concept of string and its function   |
|  |                    |   | Adequate knowledge in function and recursion  |
|  |                    |   | Applying the knowlege to do file read and write   |
| 3  | 15MCA103           | Data Structures                               | Know the basic concept of data structure  |
|  |                    |   | Able to explain list and queues   |
|  |                    |   | Understand the trees work in data structure   |
|  |                    |   | Understand the searching work in data structure   |
|  |                    |   | Able to do flow problem   |
| 4  | 15MCAP01           | C   | Able to create a program using various operators  |
|  |                    |   | Adequate knowledge to apply switch statements   |
|  |                    |   | Adequate knowledge to use string functions  |
|  |                    |   | Strong in pointers work   |
|  |                    |   | Understand the working functions of file program  |
| 5  | 15MCAP02           | Data Structures                               | Adequate knowledge to create aprogram using arrays  |
|  |                    |   | Adequate knowledge to create aprogram using queues  |
|  |                    |   | Able to create a program using list   |
|  |                    |   | Able to create a program using search option  |
|  |                    |   | Able to perform sorting operation   |
|  |                    |   | Adequate knowledge to perform datastructure opration using c  |
| 6  | 15MCA201           | Programming Language II - C++                 | Able to differentiate c and c++   |
|  |                    |   | Understand the concept of classes and objects   |
|  |                    |   | Identify the work of inheritance  |
|  |                    |   | Adequate knowledge in virtual functions   |
|  |                    |   | Adequate knowledge in exception handling  |
| 7  | 15MCA202           | Web Programming                               | Got a basic idea about the webpublishing foundation   |
|  |                    |   | Able to differentiate client and server side scripting  |
|  |                    |   | Know about plug ins in html   |
|  |                    |   | Got sn awareness in html,scmtl  |
|  |                    |   | Understand the evolution of xml   |
|  |                    |   | Understand the evolutions of operating system   |
|  |                    |   | Know about the os functions and structure   |

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| 8  | 15MCA203 | Operating System          | Adequate knowledge in process management                                    |
|    |          |                           | Adequate knowledge in process memory management                             |
|    |          |                           | Know about secondary storage  |
| 9  | 15MCA204 | Computer Networks         | Understand about tcp/ip models  |
|    |          |                           | Know about the working procedure of data link layer                         |
|    |          |                           | Know about the working procedure of network layer                           |
|    |          |                           | Clear knowledge in transport layer  |
|    |          |                           | Adequate knowledge in application layer                                     |
| 10 | 15MCA303 | C++                       | Able to create a member function  |
|    |          |                           | Perform operator overloading function                                       |
|    |          |                           | Adequate knowledge to create a program using friend function                |
|    |          |                           | Adequate knowledge to create a program using inheritance                    |
|    |          |                           | Able to create a file operation program                                     |
|    |          |                           | Able to create a program using virtual function                             |
| 11 | 15MCA304 | Web Programming           | Able to create a web page by using basic aspects                            |
|    |          |                           | Adequate knowledge to perform java script operations.                       |
|    |          |                           | Can able to perform xml application   |
|    |          |                           | Able to create a web page by using form validations                         |
|    |          |                           | Strong knowledge in the concept of string function                          |
| 12 | 18MCA301 | Advance Computer Security | Know about the basics of distributed computing                              |
|    |          |                           | Clear idea about model of a computation                                     |
|    |          |                           | Clear in socket api   |
|    |          |                           | Understand the concept of group communication                               |
| 13 | 15MCA302 | Mobile Computing          | Awareness about mac, sdma, fdma   |
|    |          |                           | Understand the concept of wireless networks                                 |
|    |          |                           | Know the work of mobile network layer                                       |
|    |          |                           | Know the work of mobile transport layer                                     |
|    |          |                           | Clear knowledge in wap architecture   |
| 14 | 18MCA303 | Oracle 10g Administration | Know about pl/sql   |
|    |          |                           | Understand about built in sql functions                                     |
|    |          |                           | Got an aware of cursor  |
|    |          |                           | Know about the rdbms concepts   |
|    |          |                           | Able to apply queries in rdbms  |
| 15 | 15MCA304 | Software Testing          | Know the software testing fundamentals                                      |
|    |          |                           | Know the basics of software testability                                     |
|    |          |                           | Clear in blackbox testing concept   |
|    |          |                           | Adequate knowledge in software testing strategies                           |
|    |          |                           | Able to identify software fault tolerances                                  |
| 16 | 18MCA305 | Oracle 10g Administration | Able to create a simple vb program  |
|    |          |                           | Performing an calculator program  |
|    |          |                           | Able to create a simple gaming using vb program                             |
|    |          |                           | Can create a notepad application using vb                                   |
|    |          |                           | Can create a rdbms table  |
|    |          |                           | Can able to retrieve the value using queries                                |
|    |          |                           | Having an adequate knowledge to create gui check point for multiple windows |

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| 17 | 15MCAE06  | Software Testing Tools                          | Adequate knowledge to perform loop testing                     |
|    |           |   | Adequate knowledge to perform stress testing                   |
|    |           |   | Acquired the professional skills to do unit testing            |
|    |           |   | Acquired the professional skills to do system testing          |
| 18 | 18MCAE01  | Elective-I Object Oriented Software Engineering | Having an idea to differentiate hardware and software features |
|    |           |   | Clear knowledge in the concept of software engineering task    |
|    |           |   | Clear knowledge in the concept of software designing           |
|    |           |   | Know the concept of golden rules                               |
| 19 | 15MCAE02  | Multimedia and its applications                 | Understand the importance of testing                           |
|    |           |   | Clear knowledge in multimedia basics                           |
|    |           |   | Understand the concept of text effects in multimedia           |
|    |           |   | Adequate knowledge to perform video and audio concept          |
| 20 | 18MCAE03  | Principles Of Programming Language              | Know the exact motion of animation                             |
|    |           |   | Strong in the aspects of multimedia                            |
|    |           |   | Know about early grid activities                               |
|    |           |   | Clear in grid computing anatomy                                |
| 21 | 15MCA401  | Middleware Technologies                         | Adequate knowledge in ogsa                                     |
|    |           |   | Know about the technical details of ogsi                       |
|    |           |   | Know about the golbus gt3 tool kit                             |
|    |           |   | Know the basics of java 2 enterprise edition overview          |
| 22 | 15MCA402  | PHP Programming                                 | Understand the concept of java servlet                         |
|    |           |   | Know about cjb   |
|    |           |   | Clear in the concept of architecting webservice                |
|    |           |   | Know about structs   |
| 23 | 18MCA403  | Internet Of Things                              | Know the basics of php   |
|    |           |   | Adequate knowledge to apply conditional statements             |
|    |           |   | Adequate knowledge to use arrays and functions                 |
|    |           |   | Understand about session and cookies                           |
| 24 | 145MCAE07 | Middleware Technologies                         | Understand the steps to create basic applications              |
|    |           |   | Know about basics and history of information system security   |
|    |           |   | Understand the importance of security considerations           |
|    |           |   | Know about logical access control                              |
| 25 | 15MCAE08  | PHP Programming                                 | Understand about the firewalls                                 |
|    |           |   | Strong knowledge in privacy issues of smart card applications  |
|    |           |   | Creating a program to get user name and password               |
|    |           |   | Adequate knowledge to create a program using jsp tags          |
|    |           |   | Adequate knowledge to implement session bean                   |
|    |           |   | Adequate knowledge to implement entity bean                    |
|    |           |   | Adequate knowledge to implement message driven bean            |
|    |           |   | Can create a simple program                                    |
|    |           |   | Able to create a program for random number                     |
|    |           |   | Can create a program to show the date and time                 |
|    |           |   | Can be able to use the basic concept in website designing      |
|    |           |   | Having adequate knowledge to create a website                  |
|    |           |   | Clear idea in marketing and management                         |

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| 26 | 15MCAE04  | Elective-II E-Commerce       | Able to analyze the business data management  |
|    |           |                              | Understand the functioning of business organization   |
|    |           |                              | Clear knowledge in managing strategies  |
|    |           |                              | Clear knowledge in laws regarding business process  |
| 27 | 15MCAE05  | Cloud Computing              | Know the basics of cloud computing  |
|    |           |                              | Clear in the concept types of clients   |
|    |           |                              | Know the working procedure of cloud in several organization   |
|    |           |                              | Know the function and limitation of cloud work  |
|    |           |                              | Understand the concept of cloud environment steps   |
| 28 | 18MCAE06  | Information System Security  | Know the basics of ai problems  |
|    |           |                              | Understand the concept of heuristic search technique  |
|    |           |                              | Adequate knowledge about representation and mapping   |
|    |           |                              | Having an idea to apply and using predicate logic   |
|    |           |                              | Clear idea in expert system   |
| 29 | 15MCA501  | .Net Framework               | Adequate knowledge in form controls   |
|    |           |                              | Clear knowledge in functions  |
|    |           |                              | Understand the concept of structured programming  |
|    |           |                              | Able to apply built in function   |
|    |           |                              | Got an awareness of working with files  |
| 30 | 18MCA502  | Internet Working With TCP/IP | Know about the types of projects  |
|    |           |                              | Able to do activity planning  |
|    |           |                              | Understand about the risk management  |
|    |           |                              | Understand about the configuration management   |
|    |           |                              | Adequate knowledge to do casestudy  |
| 31 | 15MCA503  | Data Mining and Warehousing  | Know the basic datamining task  |
|    |           |                              | Understand about kdd process  |
|    |           |                              | Adequate knowledge in neural network algorithm  |
|    |           |                              | Adequate knowledge in neural decision tree algorithm  |
|    |           |                              | Strong idea in genetic algorithm work process   |
| 32 | 15MCA509  | .NET Programming             | Professional skills gained to implement conditional statements  |
|    |           |                              | Knowledge acquired to apply looping statements  |
|    |           |                              | Professional skills gained to implement functions   |
|    |           |                              | Knowledge acquired to create a program using arrays   |
|    |           |                              | Able to apply the controls in program   |
| 33 | 18MCA510  | Router Configuration         | Understand about the risk management  |
|    |           |                              | Understand about the configuration management   |
|    |           |                              | Adequate knowledge to do casestudy  |
|    |           |                              | Professional skills gained to implement functions   |
| 34 | 15MCAAPR1 | Minor Project and Viva-Voce  | Adequate knowledge to create the software applications  |
|    |           |                              | Strong knowledge in programming concept   |
|    |           |                              | Strong knowledge in database creation   |
|    |           |                              | Adequate knowledge to do forms creation and testing   |
|    |           |                              | Adequate knowledge to explain their project with external and having boldness to survey in the it world |
|    |           |                              | Clear in xml technology family  |
|    |           |                              | Know the architecting webservices   |

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| 35 | 18MCAE07  | Soft Computing                              | Understand the concept of webservice building blocks<br>Know about e business<br>Understand about content management   |
| 36 | 15MCAE08  | WAP and XML                                 | Know the importance of analysis and objects<br>Clear knowledge in the concept of software designing<br>Know the importance of information management<br>Identify the structure of theuml<br>Enough knowledge to make the design through design   |
| 37 | 15MCAE09  | Software Project Management                 | Understand the rise of mobile data<br>Know about wireless markup language<br>Clear knowledge in using variables<br>Having an idea to design a user interface<br>Know about wireless technology applications  |
| 38 | 15MCA601  | Digital Image Processing                    | Know the fundamentals of digital image processing<br>Clear in the mathematical problem solving concept<br>Clear in the concept of histogram and eye diagram<br>Know the basic of color image processing<br>Adequate knowledge in all steps of image processing logic   |
| 39 | 18MCAPI1  | Digital Image Processing Using Matlab Tools | Knowledge acquired to create a program using arrays<br>Able to apply the controls in program<br>Know the fundamentals of digital image processing<br>Clear in the mathematical problem solving concept   |
| 40 | 18MCAE10  | IV Bigdata & Analytics                      | Clear in fundamentals of neural networks<br>Understand the concept of back propagation networks<br>Know about adaptive reason theory<br>Knowledge in fuzzy set theory<br>Adequate knowledge in crisp logic   |
| 41 | 18MCA E11 | Green Computing                             | Know about the characteristics of computer intrusion<br>Clear in the concept of program security<br>Understand about the designing of trusted operating systems<br>Clear in database security<br>Understand about security in networks   |
| 42 | 18MCA E12 | Machine Learning                            | Acquired the basic knowledge in java and j2ee platform<br>Know about orb protocol<br>Know about servlet programming<br>Clear in java transaction<br>Adequate knowledge in commands, items and event  |
| 43 | 15MCA PR2 | Major Project and Viva-Voce                 | Adequate knowledge to create the software applications<br>Strong knowledge in programming concept<br>Strong knowledge in database creation<br>Adequate knowledge to do forms creation and testing<br>Adequate knowledge to explain their project with external and having boldness to survey in the it world |

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| <b>Programme Outcomes</b>          |                    |  | On completion of the M.Com Programme, the graduate will be equipped with   |
|                                    |                    |  | Strong knowledge inputs in Commerce which caters the Local, National and Global requirements   |
|                                    |                    |  | Skill set to enter into a career either in Academics, Research or alternatively in other professional areas of Commerce and Finance such as Taxation, Human Resources, Marketing and Financial services.       |
|                                    |                    |  | Professional knowledge and interpersonal skills that fosters holistic development  |
|                                    |                    |  | Ethical responsibility and contribute to the society through active research.  |
|                                    |                    |  | Contemporary knowledge of business that will enhance the skills for lifelong learning  |
| <b>Programme Specific Outcomes</b> |                    |  | Impart the students with higher level knowledge and understanding of contemporary trends in Commerce, 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  |
|                                    |                    |  | Provide guidance to students to plan and undertake independent research in chosen discipline   |
| <b>S.No</b>                        | <b>Course Code</b> | <b>Course Name</b>                     | <b>Course Outcomes</b>   |
| 1                                  | 15MCM101           | Corporate Accounting                   | Understand the corporate practice in valuing shares and goodwill.  |
|                                    |                    |  | Acquaint with the legal formats and special items and adjustments pertaining to Banking companies and Insurance companies.   |
|                                    |                    |  | Develop the skills in preparation of consolidated Balance Sheet of Holding company and Subsidiary company.   |
|                                    |                    |  | To learn the latest provisions relating to Government accounting and Human Resources accounting  |
| 2                                  | 15MCM102           | Managerial Economics                   | Describe the nature and scope of managerial economics, demand analysis and growth model of the firm.   |
|                                    |                    |  | Learn the techniques of production function and cost analysis.   |
|                                    |                    |  | Comprehend the market forms and apply the pricing techniques to determine the price of factors of production.  |
|                                    |                    |  | Apply the knowledge of national income accounting and cost of living measurement in real world situations.   |
| 3                                  | 18MCM103           | Human Resource Management              | Assimilate the product and financial market equilibrium and decipher monetary and fiscal policies.   |
|                                    |                    |  | Familiarize the basic concepts of human resource management, framework and its role to play in effective business administration   |
|                                    |                    |  | Interpret the elements relate to various aspects of HRM, such as recruitment, placement, evaluation, compensation and development  |
| 4                                  | 18MCM104           | International Business                 | Understanding the goals of HRM and organizational outcomes, and apply this understanding in practical situations   |
|                                    |                    |  | Analyse the changing dimensions of international trade and appreciate the role of trade theories in explaining trade patterns in different industries.   |
|                                    |                    |  | Assess the political realities of world trade and measures taken by governments to intervene in international trade.   |
|                                    |                    |  | Critically examine theories of international investment and bring out their relevance in global investment scenario.   |
| 5                                  | 18MCM105           | Legal Aspects in Banking and Insurance | Appreciate the role international organisations like WTO in regulating global trade and investment.  |
|                                    |                    |  | Examine the differences in the political, legal, economic and cultural environment of various countries and their implications for international business decisions  |
|                                    |                    |  | Understand and explain the conceptual framework of banking   |
|                                    |                    |  | Classify and Demonstrate the types of deposit, cheques, loans and advances   |
| 6                                  | 15MCM106           | Business Environment                   | Illustrate the various electronic payment methods  |
|                                    |                    |  | Analyzing current insurance coverage and potential need  |
|                                    |                    |  | Discuss the supply and demand theory and its impact on insurance.  |
|                                    |                    |  | Explain the effects of government policy on the economic environment and insurance industry.   |
| 7                                  | 18MCM201           | Advanced Cost Accounting               | Outline how an entity operates in a business environment.  |
|                                    |                    |  | Describe how financial information is utilized in business.  |
|                                    |                    |  | Explain the legal framework that regulates the insurance industry.   |
|                                    |                    |  | To understand the basic concepts and processes used to determine product costs   |
| 8                                  | 17MCM202           | Indirect Taxation                      | To be able to interpret cost accounting statements   |
|                                    |                    |  | To be able to analyze and evaluate information for cost ascertainment, planning, control and decision making   |
|                                    |                    |  | To be able to solve simple cases   |
|                                    |                    |  | Understand the basic principles underlying the Indirect Taxation Statutes  |
|                                    |                    |  | Identify and analyze the procedural aspects under different applicable statutes related to indirect taxation   |
|                                    |                    |  | Examine the concepts used in indirect tax, assessment, powers, duties, offences, penalties etc.  |
|                                    |                    |  | To familiarize the students with the fundamentals of marketing to enable them to take better marketing decisions.  |



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| 9  | 16MCM203 | Marketing Management                       | <p>To discuss and make the students understand the nuances and complexities involved in various product and pricing decisions.</p> <p>To equip the students to take effective distribution decisions for products and services.</p> <p>To develop the skills among students to enable them to design the Promotion-Mix strategies advertising campaigns.</p> <p>To make the students aware about the current trends in marketing to enable them to take proactive measures while taking marketing decisions.</p>  |
| 10 | 15MCM204 | Financial Management                       | <p>Understand the foundations of financial management, risk return framework and role of a finance manager.</p> <p>Analyze and evaluate capital projects under different situations using appropriate capital budgeting techniques.</p> <p>Critically examine various theories and determinants of capital structure, analyze financial plans and determine optimal capital structure.</p> <p>Critically examine various theories and policies of dividend and determine optimal payout policy.</p> <p>Understand the intricacies of working capital management and effectively manage cash, receivables and inventories.</p> |
| 11 | 16MCM203 | Export and Import Procedure                | <p>Explain the concepts in custom clearance in international business with respect to foreign trade</p> <p>Apply the current custom clearance phenomenon and to evaluate the global business environment in terms of economic, social and legal aspects</p> <p>Analyse the principle of international business and strategies adopted by firms to for exporting products globally</p> <p>Integrate concept in custom clearance concepts with functioning of global trade</p>  |
| 12 | 15MCM204 | Business Research Methods                  | <p>To describe the meaning and role of Business Research.</p> <p>To formulate the research problem and understanding the major research designs.</p> <p>To determine data sources and learn the art of designing a questionnaire.</p> <p>To understand various sampling techniques and develop understanding of data collection and fieldwork.</p> <p>To enable students to analyse data using various techniques and to learn how to communicate the results and follow up.</p>  |
| 13 | 15MCM301 | Direct Tax                                 | <p>Examine the basic concepts of schedule of rates of tax, tax liability, penalties and prosecution</p> <p>Explain the total taxable income of an assessee</p> <p>Apply and practice the computation of total income</p>  |
| 14 | 18MCM302 | Investment Management                      | <p>Able to determine the cost of capital.</p> <p>Able to adjust financial statements for valuation purposes.</p> <p>Able to use adjusted financial statements to produce a sound valuation of a company.</p> <p>Able to develop investment policy statements for institutional and individual investors.</p>  |
| 15 | 17MCM303 | Labour Law and Industrial Relation         | <p>To recognize the different industrial relations systems</p> <p>To distinguish the procedure concerning worker participation and participatory institutions and instruments of trade union representation</p> <p>To classify the authorized services and agencies for employment</p> <p>To distinguish employee rights and obligations according to the scope of employment</p> <p>To defend employ rights before supervisory and control institutions.</p>   |
| 16 | 17MCM304 | E.Commerce & MIS                           | <p>Discuss modern computing infrastructures from the perspective of the internet and organisations</p> <p>Reflect on general principles revealed through practical exploration of specific tools, techniques and methods in e-business.</p> <p>Discuss and explain theoretical and practical issues of conducting business over the internet and the Web</p>  |
| 17 | 16MCM204 | Security Analysis and Portfolio Management | <p>To know and understand the concepts of investment environment</p> <p>To apply the concept of fundamental and technical analysis for the construction of a portfolio</p> <p>To analyze the performance of a selected portfolio for a certain period</p> <p>Understand the various alternatives available for investment.</p> <p>Learn to measure risk and return. Find the relationship between risk and return</p>   |
| 18 | 17MCM204 | Business Ethics                            | <p>to acquire a basic and clear understanding of philosophical ethics</p> <p>to understand the principles of moral decision-making in global business</p> <p>to identify the trade-offs that face an ethical manager</p> <p>to understand how competitive advantage maps on to corporate social responsibility</p> <p>To acquire ethical frameworks, so as to attack moral problems critically and comprehensively</p>  |
| 19 | 17MCM401 | Management Accounting                      | <p>Identify differences between various forms of accounting—Financial, Managerial and Cost and the role of a Management Accountant</p> <p>Identify cost according to their associated activities and apply costing techniques for computing cost of products or services</p>  |

|    |           |  |   |
|----|-----------|--|---|
|    |           |  | Make various managerial decisions on the basis of learning about concepts and issues involved therein.  |
| 20 | 18MCM402  | Strategic Management                         | To describe the role of Strategic Management<br>understand various levels at which Strategy exist namely Corporate, Business and Functional level<br>To help students learn strategic management models<br>To analyze how organizations make decisions in response to rapid changes that occur due to environmental changes.<br>To analyze how firms make entry into global markets and implement and evaluate strategy at an International level |
| 21 | 18MCM07   | Entrepreneurship & Small Business Management | Familiarize the basic concepts Entrepreneurship, framework and its role to play in effective small business management<br>Interpret the elements relate to various aspects such as recruitment, placement, evaluation, compensation and development   |
| 22 | 18MCM E08 | Micro Finance Management                     | knowledgeable about the benefits and controversies of microfinance in modern economies;<br>Be familiar with the process of finding loan recipients and delivering a microfinance pitch;   |
| 23 | 18MCM E09 | Retail Marketing Management                  | Explain the Retail marketing techniques and discuss how it is used to pursue new marketing opportunities<br>Define grading and Illustrate the opportunities for graded agricultural and commercial products<br>Identify the marketing mix elements and describe the components of market mix.   |

#### HINDI

| S.No | Course Code | Course Name | Course Outcome   |
|------|-------------|-------------|--|
| 1    | 18LAHI01    | Hindi I     | Syllabi framed to contain 50% of Functional Hindi instead of 30% for more employability in public sector.<br>Proficiency in Language and Communication Skills acquired<br>Course contents enable the students to be competent in job sector<br>In and out campus Cultural and literary activities help in personality development. |
| 2    | 18LAHI02    | Hindi II    | Oral communication in the language is encouraged in the class room through conversation, discussions and seminars<br>More socially relevant contents are included to develop human and cultural values<br>Non Hindi students are given special coaching in oral communication.   |

#### TAMIL

| S.No | Course Code | Course Name | Course Outcome   |
|------|-------------|-------------|--|
| 1    | 16LATA01    | TAMIL       | Proficiency in Language and Communication Skills acquired<br>Ethical and human values are promoted by introducing great leaders and poets literary personalities in tamil<br>Promote creative thinking and literary skills are promoted  |
| 2    | 16LATA02    | TAMIL       | Develop confidence and leadership quality by taking part in Out campus programs.<br>Syllabi have different trends in literature like writing and verbal communication.<br>More contents are included to promote employability in Tamilnadu public service commission.  |
| 3    | 16LATA03    | TAMIL       | Better communication skill in the language by promoting discussions debates and stage programmes.<br>Students are encourage to participate in cultural and literary activities in and outside campus to build personality.<br>The course contents are socially relevance to cultivate behavioural and cultural values. |
| 4    | 16LATA04    | TAMIL       | More contents are included to promote employability in Tamilnadu public service commission.<br>Has contents to promote writing and journals.<br>Computing in Tamil is introduced to assist Develop confidence and leadership quality by taking part in Out campus programs.getting employability.                      |

#### FRENCH

| S.No | Course Code | Course Name | Course Outcome               |
|------|-------------|-------------|------------------------------|
|      |             |             | Basic level of Comprehension |

|   |          |            |   |
|---|----------|------------|---|
| 1 | 15LAFR01 | FRENCH - I | Understanding of tenses                 |
|   |          |            | Exploring of Language translation       |
|   |          |            | Identification of Number in French      |
|   |          |            | Developing sentence Formation           |
| 2 | 15LAFR02 | FRENCH-II  | Understanding of Formation of Questions |
|   |          |            | Change of sentence in Negative          |
|   |          |            | Understanding Future Tense              |
|   |          |            | Gender Identification and Allocation    |

#### MALAYALAM

| S.No | Course Code | Course Name | Course Outcome   |
|------|-------------|-------------|--|
| 1    | 15LAMY01    | MALAYALAM   | To know the beauty of the coherence of Language and Literature.  |
|      |             |             | To demonstrate the awareness of evolution theory of language by varied culture.  |
|      |             |             | To explore literary elements   |
| 2    | 15LAMY02    | MALAYALAM   | Understand the social, historical and political backgrounds of the world of the novelists and short story 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 and 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.                            |
| 3    | 15LAMY03    | MALAYALAM   | To understand and appreciate poetry as a literary art form.  |
|      |             |             | To enhance their own creativity.   |
|      |             |             | To facilitate their writing skills   |
| 4    | 15LAMY04    | MALAYALAM   | 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, knowledgeable, and ethical manner.  |
|      |             |             | Become well acquainted with the rhetorical aspect of Drama, historical contexts and psycho-social aspects.   |

#### PART II - ENGLISH

| S.No | Course Code | Course Name          | Course Outcome  |
|------|-------------|----------------------|---|
| 1    | 16ENG001    | Part II - English I  | Learn the use of language through prescribed texts.   |
|      |             |                      | Enables them to recognize and draw parallels to thoughts, feelings, ideas in the texts from life experiences. |
|      |             |                      | Understand the nuances of poetry.   |
|      |             |                      | expose to the art of writing in English.  |
| 2    | 16ENG002    | Part II - English II | Write coherently and persuasively about literary texts  |
|      |             |                      | Developed their intellectual, personal and professional abilities   |
|      |             |                      | Acquired basic language skills to communicate in English.   |
|      |             |                      | Acquired the linguistic competencies in various life situations.  |
|      |             |                      | Developed positive attitudes towards learning English.  |

#### PART IV COMMUNICATIVE ENGLISH

| S.No | Course Code | Course Name                    | Course Outcome   |
|------|-------------|--------------------------------|--|
| 1    | 15EDC002    | PART IV- COMMUNICATIVE ENGLISH | Helps students to become effective communicators and critical consumers of messages.                         |
|      |             |                                | Prepare them for life as an educated citizen and as a productive professional.                               |
|      |             |                                | Express ideas in clear and grammatically correct English, using appropriate punctuation and cohesion devices |

**PART IV ENVIRONMENTAL STUDIES**

| S.No | Course Code | Course Name                    | Course Outcome   |
|------|-------------|--------------------------------|--|
| 1    | 18UFCA01    | PART IV- ENVIRONMENTAL STUDIES | To sensitize the students on environmental values and make them conscious of the need to maintain the environmental quality in the benefit of our posterity. |

**PART IV VALUE EDUCATION**

| S.No | Course Code | Course Name               | Course Outcome   |
|------|-------------|---------------------------|--|
| 1    | 18UFCA02    | PART IV - VALUE EDUCATION | To develop an understanding of values education strategies<br>To consider the relation between values and personal behaviour affecting the achievement of sustainable futures;<br>To reflect on your futures awareness, commitment and actions |

**MATHEMATICS**

| S.No | Course Code                                     | Course Name                         | Course Outcome  |
|------|---|-------------------------------------|---|
| 1    | 16BBAID1/<br>16BACID1/<br>16BABID1              | BUSINESS MATHEMATICS AND STATISTICS | Remember set theory concepts and to analyze the applications of business problems<br>To understand the concepts of Matrices, its types and to solve simultaneous equations<br>Analyze the measures of central tendency and to apply its concepts<br>To Analyze the measures of dispersion and to apply its concepts<br>To correlation, Regression and its properties to apply its concepts  |
| 2    | 15BBAID2/<br>15BACID2/<br>15BABID2              | OPERATIONS RESEARCH                 | Understand the meaning, scope, Models of Operations Research and create mathematical formulation of LPP to solve Graphical method<br>To understand the concept of Transportation and Assignment problems and its type<br>To analyze the decision making using the concept of Game theory<br>Understand the CPM , Network concepts and its Types<br>To understand the concepts of PERT to find the probability of completion of projects |
| 3    | 15BCPID1  | MATHEMATICS FOR BUSINESS            | Remember set theory concepts and to analyze the applications of business problems<br>To understands the concepts of Matrices, its types and to solve simultaneous equations<br>Apply the concepts of limits and differentiation in Business problems<br>To solve Gauss elimination , Gauss Jordon and to analyze various methods of numerical integration<br>To understand the concepts of Interpolation                                |
| 4    | 15BCPID2  | STATISTICS FOR BUSINESS             | To understand the meaning, scope of statistics and its basic concepts<br>Analyze the measures of central tendency and to apply its concepts<br>To analyze the measures of dispersion<br>To understand the meaning of correlation, Regression, types and its properties<br>To understand the concepts of Time series, Method of least squares and Index numbers. And to analyze its methods  |
| 5    | 15BSCID1/<br>15BITID1/<br>15BCTID1/<br>15BCAID1 | NUMERICAL METHODS AND STATISTICS    | To understand the system of linear algebraic equations and to analyze the various method<br>To understand and analyze concepts of Numerical Intepolation, Numerical Integration and its types<br>Analyze the measures of central tendency and to apply its concepts<br>To analyze the measures of dispersion<br>To understand the meaning of correlation, Regression and its properties   |
| 6    | 15BSCID2/<br>15BCTID2/<br>15BITID2              | DISCRETE MATHEMATICS                | To understand the concepts of set theory, fundamental product and duality principle<br>To understand and analyze concepts of mathematical logic, proportional calculus and predicate calculus<br>Analyze types of relation and types of functions to solve<br>To understanding the concept of formal languages, Grammar, finite state automata and to apply its concepts  |

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|    |  |                      | To understand the meaning of Graph , Types of graphs , its basic theorems and to apply its concepts to solve  |
| 7  | 15BCSID3/<br>17BPSID3/<br>15BCCID3/<br>15BCSID3              | BUSINESS MATHEMATICS | Remember set theory concepts and to analyze the applications of business problems   |
|    |  |                      | To understands the concepts of Matrices, its types and to solve simultaneous equations  |
|    |  |                      | Apply the concepts of limits and differentiation in Business problems   |
|    |  |                      | To solve Gauss elimination , Gauss Jordon and to analyze various methods of numerical integration   |
|    |  |                      | To understand the concepts of Interpolation   |
| 8  | 15BCSID4/<br>15BCCID4/<br>16BCSID4/<br>17BPSID4/<br>15BITID4 | BUSINESS STATISTICS  | To understand the meaning, scope of statistics and its basic concepts   |
|    |  |                      | Analyze the measures of central tendency and to apply its concepts  |
|    |  |                      | To analyze the measures of dispersion   |
|    |  |                      | To understand the meaning of correlation, Regression, types and its properties  |
|    |  |                      | To understand the concepts of Time series, Method of least squares and Index numbers. And to analyze its methods                                      |
| 9  | 18BESID1   | MATHEMATICS-I        | To analyze the concepts of Matrix concepts , Characteristic roots and Characteristics vectors .and also to solve simultaneous equations.              |
|    |  |                      | To understand the concepts theory concepts of Vector calculus and its operations.   |
|    |  |                      | Analyze the types of Fourier series and to apply its concepts.  |
|    |  |                      | To understand and apply the concepts of Laplace transforms..  |
|    |  |                      | To understand the meaning of Complex numbers ,expansions of trigonometric terms and De Moivre's Theorem.  |
| 10 | 18BESID2   | MATHEMATICS-II       | To analyze the concepts of Second order linear differential equation with constant coefficients and its application to electric circuits RL, RC, RLC. |
|    |  |                      | To understand the system of linear algebraic equations and to analyze the various methods.  |
|    |  |                      | To understand and analyze concepts of Numerical Interpolation , Numerical Integration and its types.  |
|    |  |                      | To Analyze the types of Fourier Transforms and to apply its concepts.   |
|    |  |                      | To Analyze and appilled the concept of beta and gamma functions   |
| 11 | 15BCTID4/<br>15BITID4/<br>15BCAID2/<br>15BCSID3              | OPERATIONS RESEARCH  | To create the formulation of LPP and to evaluate various methods of LPP namely Graphical method,Simplex method and Big-M method                       |
|    |  |                      | To understand the concept of Transportation and Assignment problems and its type  |
|    |  |                      | To analyze the decision making using the concept of Game theory   |
|    |  |                      | To analyze the concept of Queing Theory and its methods   |
|    |  |                      | To understand the concepts of PERT to find the probability of completion of projects  |

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