Department of Commerce with Computer Applications

Programme Outcomes (POs)
Programme Specific Outcome
Course Outcomes (Cos)

B.COM WITH COMPUTER APPLICATIONS - PEOS, PSOS & POS

Program Educational Objectives (PEOs)	
The **B.Com (Computer Applications)**program describe accomplishments that graduatesare expected to attain within five to seven years after graduation	
PEO1	To Provide students with specific knowledge and skills relevant to their disciplinesand careers.
PEO2	To make the students acquainted with technical and practical concepts for understanding the real business problems using different programming languages.
PEO3	To train the students on practical business applications using high level programming languages in real world.
PEO4	To make the students aware about the useful applications of different computerlanguages that solve real world problems.
PEO5	To enhance the knowledge on visual based programming language and object-oriented language in different business applications using various design principlesportraying the concepts of computer applications in business activities.

Program Specific Outcomes (PSO)	
After the successful completion of **B.Com (Computer Applications)** program, the students are expected to	
PSO1	Know and apply the various business management and computer applications concepts to solve the real-world problems.
PSO2	Acquire the knowledge on object-based computer applications in various business fields.
PSO3	Solve the business applications related issues of using oracle and object oriented programming languages
PSO4	Analyze the real e-business problems by using the different applications of procedure-oriented language programs
PSO5	Enrich the practical knowledge on applications of accounting and programming languages in business ventures.

Program Outcomes (POs)	
After the successful completion of **B.Com (Computer Applications)** program, the students are expected to	
PO1	Develop the accounting, finance, banking, Insurance, marketing as well as the computer application knowledge to the students.
PO2	Create awareness of the students about Business law, Tax Law and legislations related to business and computer applications
PO3	Get the training to learn how to develop successful computer programs to solve the business problems for increasing the productivity of the e-business.
PO4	Obtain the practical application exposure on ms-office and oracle software.
PO5	Apply object oriented or non-object oriented techniques to solve business computing problems which make students a good programmer.

COURSE OUTCOMES FRO B.COM WITH COMPUTER APPLICATIONS

	Course Title: Principles of Accountancy	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Recall the fundamental concepts of accounting and book keeping.	K1
2	Solve the errors in book keeping and identify the effect of BRS in an enterprise	K2
3	Aware of Bills of exchange and its transaction including Accommodation bills	K2
4	To gain knowledge about the preparation of final Accounts	K3
5	Understand the Account current statement and procedure for calculation of Average due date methods	K2
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create	

	Course Title: Introduction to InformationTechnology	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Understand the basic concepts about hardware and software components and data retrieval from various areas of business.	K1
2	Recall and remember the different types of computers available in business industries.	K1
3	Aware of different programming and machine level languages and steps to develop computer programmes.	K2
4	To gain knowledge about e-commerce, internet and extranet understand the uses of world wide web applications.	K2
5	Create the applications of computer information system in various business fields.	K2
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

	Course Title: Mathematics for Business	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of arithmetic and geometric series and different effective rates of interest for sinking fund, annuity and presentvalue.	K2
2	Know the basic concepts of addition and multiplication analysis andinput and output analysis.	K1
3	Aware of variables, constants and functions and evaluate the first andsecond order derivatives.	K2
4	To gain knowledge on integral calculus and determining definite andindefinite functions.	K2
5	Analyze the linear programming problem by using graphical solutionand simple method.	K4
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

Course Title: Computer Applications: Ms Office -Practical-I	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts computer applications using MS-Officeapplications for the business transactions.	K2
2	Create customers list using mail merge for sending letters to therespondents at a time.	K3
3	Aware and apply various statistical tools available in Ms-excel for thebusiness enterprise transactions.	K3
4	To gain knowledge making effective presentation for the businessmeeting using power point presentation.	K2
5	Understand and evaluate the database using MS-Word and excel.	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title: Advanced Accounting	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the different methods of depreciation.	K2
2	Solve the problems of branch accounts, hire purchase and installment system.	K2
3	Know the single entry system and statement of affairs method usingconversion method	K2
4	To gain knowledge on Partnership Accounts, Division of Profits, Fixed andFluctuating Capital, Admission and Retirement of partners.	K3
5	Understand Dissolution of Partnership and Insolvency of Partners	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

Course Title: Computer Applications: Ms Office -Practical-I	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts computer applications using MS-Accessfor maintaining the database.	K2
2	Create different databases using access application for developing thebusiness transactions	K4
3	Apply the accounting principles and rules in tally software packages forupdating the accounting transactions.	K3
4	To gain knowledge on creating e-mail in tally package.	K3
5	Gain the knowledge on visiting a business enterprise website and collectthe data.	K2

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title: Statistics for Business	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of arithmetic and geometric mean and different types of data collection.	K2
2	Know measures of dispersion.	K1
3	Gain the knowledge on correlation and regression analysis.	K5
4	Understand the different types of moving averages.	K2
5	Know and analyze interpolation and probability	K2

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course Title: Principles of Marketing		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the different types of marketing and career opportunities in marketing.	K2
2	Know about the marketing function for achieving marketing goals.	K1
3	Aware of consumer behaviour and market segmentation and customer relations marketing.	K2
4	Analyze the marketing mix, product mix and know about the green marketing.	K2
5	Gain the knowledge on different bureau of Indian standards and consumer protection rights.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course Title: Database Management System		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts of data system, operational data and storage structures of the data	K2
2	Understand the relation approach and its key relation algebra.	K1
3	Aware about embedded SQL.	K2
4	To gain knowledge on hierarchical approach for knowing the detailed description of the data.	K2
5	Aware about embedded SQL.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course Title: Cost Accounting		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the different concepts and classification of costs and create cost sheet for the firms.	K2
2	Gain the knowledge on different types of material controls.	K3
3	Know the system of labour wage payment, labour turnover and classification of overhead.	K2
4	Gain the knowledge on different types of process costing.	K2
5	Understand Operating Costing, Contract costing, and Reconciliation of Cost and Financial accounts	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course Title: Managerial Economics		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Familiarize the students with the basic concept of managerial economics	K2
2	Make student understand the demand and supply analysis in business applications	K2
3	Apply marginal analysis to the firm under different market conditions.	K3
4	Analyze the causes and consequences of different market conditions.	K4
5	Familiarize the students with the basic concept of managerial economics	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course Title: Computer Applications: Oracle -Practical-II		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts computer applications using Oracle for maintaining the database.	K2
2	Create different databases using access application for developing the business transactions	K5
3	Gain the knowledge on creating database using oracle.	K2
4	Gain knowledge on application of oracle statements to extract the particular data base.	K3
5	Gain the knowledge on developing employees and salary databases using oracle.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course Title: Commercial Law		
Expected Course Outcomes:		
1	Check the various elements related business law and contract	K5
2	Interpret different types of contract and its features	K2
3	Analyze the mode of performance and discharge of contract	K4
4	Compare and check between rights and duties of indemnity, guarantee, bailor and bailee.	K5
5	Analyze the Law of sale of goods and its intricacies.	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course Title: Management Accounting		
Expected Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Recall the objectives and scope of management and know the relationship between other managerial accounting.	K1
2	Analyze the performance of the company using different ratios	K4
3	Understand the working capital requirements of the company using the format.	K3
4	To gain knowledge about marginal costing and BEP analysis.	K2
5	Understand about budgeting and budgetary control	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course Title: Object Oriented Programme With C++	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Compare the different types of languages and find the importance ofobject-oriented programming language	K2
2 Know and understand the C++ statements and motivate the students tomake use of the statements	K3
3 Identify the class structure and develop the program.	K2
4 Develop the program by applying the concept of OOPs	K3
5 Apply the data file operation technique and evaluate the program in apractical manner	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create	

Course Title: Executive Business Communication	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the effectiveness of business communication	K2
2 To gain the knowledge on creating various forms of letters	K3
3 Understand the concept on banking and insurance correspondence	K2
4 To gain knowledge on report writing	K2
5 To create a resume	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Computer Applications : Oracle & C++Practical-II	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Create programs by applying class and member functions concept	K3
2 Develop the programs using member function definition	K3
3 Apply the concepts of oracle to solve the problems of business enterprises.	K3
4 Develop the students to use the reusability concepts.	K2
5 Acquire the knowledge on the application of c++ and to solve the problems.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Banking Theory	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Discuss the Basic concepts, functions and Classification of Banking System	K1
2 Describe the Recent Trends in Banking.	K2
3 Explain about the Organization structure of Banks and Credit control measures.	K2
4 Enumerate the Indian Money Market.	K2
5 Get an insight knowledge on StateBank of India and Commercial Banks.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

Course Title: Principles of Management	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Conceptualize the nature and scope of Management process	K1
2	Understand the Planning and decision-making process.	K2
3	Enlighten about the organization and organization structure.	K1
4	Enumerate Theories of motivation and incentives.	K2
5	Make the students to understand the Co-ordination and control process.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Company Law	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Discuss the characteristics of Company and its Formation	K2
2	Understand about Memorandum and Articles of Association.	K2
3	Get a detailed knowledge on Prospectus and Kinds of shares and Debentures.	K2
4	Acquire the knowledge on powers and duties of Director and Secretary	K2
5	Understand about kinds of meetings .	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Principles of Auditing	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand about the fundamental concepts Auditing.	K1
2	Get a detailed knowledge on internal control in auditing.	K2
3	Acquire a detailed knowledge on verification of assets and liabilities.	K3
4	Gain knowledge about Joint stock companies.	K2
5	Understand about investigation.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Corporate Accounting	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand about the issue of shares of the companies.	K2
2	Get a detailed knowledge on redemption of preference shares.	K2
3	Acquire a detailed knowledge on preparation of final accounts.	K2
4	Apply the conceptual knowledge on valuation of goodwill and shares.	K3
5	Understand about liquidation of companies.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

Course Title: E-Commerce Technology	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concept of E- Commerce and its applications	K1
2 To gain the knowledge on EDI	K2
3 Understand security and the web	K2
4 To gain knowledge on consumer aspects in E-Commerce	K2
5 To know and apply various digital payment methods	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Software Development With Visual Basic	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the concept on client and server	K1
2 To gain the knowledge on IDE	K3
3 Understand the concept on user defined data types	K3
4 To gain knowledge on working with controls in VB	K2
5 Understand on data controls	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

Course Title: Computer Applications : VisualBasic - Practical-III	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concepts computer applications using Oracle formaintaining the database.	K2
2 Create different databases using access application for developing thebusiness transactions	K4
3 Gain the knowledge on creating database using oracle.	K2
4 Gain knowledge on application of oracle statements to extract the particular data base.	K4
5 Gain the knowledge on developing employees and salary databasesusing oracle.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Banking and Insurance Law	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the Concepts, functions of banking and relationship between Banker and Customer	K2
2 Gain knowledge on Negotiable Instruments Act and its kinds	K2
3 To gain knowledge on functions and principles of Insurance	K1
4 Gain knowledge on Insurance System and Acts pertaining to it.	K2
5 Understand the IRDA functioning	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Computer Applications : Visual Basic& Web designing Practical-III	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Create different databases using vb application for developing thebusiness transactions	K3
2	Gain the knowledge on creating programs using vb.	K2
3	Gain knowledge on application of vb in business enterprises.	K3
4	To gain knowledge on working with web page	K2
5	To apply the frames in web page	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Internet and Web Designing	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Learn the functions and uses of internet.	K2
2	Give the knowledge on how to search the web.	K2
3	Learn to know the uses and applications of HTML.	K3
4	Make the students to know how to create link the web.	K2
5	Get a knowledge on how to download and upload the videos.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create	

Course Title: Income Tax Law & Practice	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the fundamental concepts of income tax	K1
2	Analyze the income sources on salaries and house property	K3
3	Aware on income from other sources	K4
4	To gain knowledge about capital gains	K2
5	Understand on assessment of individuals and tax liability	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title: Indirect Taxes	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the fundamental concepts of indirect taxes.	K1
2	Know about the GST concepts.	K2
3	Know about the filing of returns.	K3
4	Gain knowledge about levy and collection of tax.	K2
5	Understand about customs law.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Note: the Cyber Law table has three columns (number, outcome, knowledge level):

	Course Title: Cyber Law	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Discuss the concepts of Cyber law and Cyber Space	K1
2	Describe Cyber Security technical aspects.	K2
3	Explain the Evidence Aspects.	K1
4	Understand the Electronic Data Interchange Scenario in India.	K2
5	To gain knowledge on Information Technology Act.	K1
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

	Course Title: Business Finance	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Introduce the concepts of business finance.	K1
2	Understand about the financial plans.	K2
3	Know about the capitalization of the financial sources.	K2
4	Understand about the capital structure.	K2
5	Know about the different sources of finance.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Department of Commerce

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

B.Com. – PEOs, PSOs & POs

Program Educational Objectives (PEOs)
The **B.COM** program describe accomplishments that graduates are expected to attain within five to seven years after graduation

PEO1	Students will able to understand the concepts of commerce.
PEO2	Programme aims to develop comprehensive professional skills which are required for commerce graduates.
PEO3	Students will develop an understanding of various commerce functions such as finance, accounting, financial analysis, project evaluation, and cost accounting
PEO4	Students will be able to prove the proficiency with the ability to engage exams like C.A, C.S and CMA
PEO5	Students can do commerce oriented research and consequence of this, they can become Professors in Colleges and Universities

Program Specific Outcomes (PSOs)
After the successful completion of B.COM program, the students are expected to

PSO1	To provide strong base on the course relevant to the area of commerce which helps to choose their career
PSO2	To enhance knowledge and skills among students which built confident to identify their career opportunities in multiple dimensions.
PSO3	Nurture the students in intellectual, personal, interpersonal and social skills with a focus on relevant professional career particularly, to maximize professional growth.
PSO4	Empower the students with necessary competencies and decision making skills to foster the innovative thinking to become an entrepreneur
PSO5	Strengthen the students to become expert in the field of communication with ethical consciousness.

Program Outcomes (POs)
On successful completion of the B.COM program

PO1	Build the wide range of knowledge in the areas of accounting concepts and techniques to meet the current and future requirement of the industry.
PO2	Develop the strong knowledge in the areas such as finance, taxation and laws relating to commerce helps to relate the conceptual and analytical skills in the field of auditing, finance etc.
PO3	Inculcate the students to nurture their skills in personal, interpersonal, intellectual and others skills to develop their professional career and growth.
PO4	Disseminate students to develop decision making and problem solving skills to undertake their own venture as a feasible career option.
PO5	Orient and motive the students to develop the needed knowledge in business and academics to develop their employability

COURSE OUTCOMES FOR B.Com

Course Title: Principles of Accountancy		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Recalling Accounting Concepts and Conventions and use Accounting rules torecord business transactions in the form of Journal, Ledger, subsidiary books and Preparation of Trial Balance.	K1
2	Understanding the steps involved in locating errors and prepare them to Understand the preparation of final accounts for sole traders.	K2
3	Outline the concepts of Bills of exchange, Average due date and Account Current	K3
4	Examine the concepts of consignment and joint venture.	K4
5	Analyze the bank reconciliation statement, Receipts and payments, Income and expenditure and Balance sheet and accounting for professionals to enhance the knowledge.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		
Course Title: Business Organization and Office Management		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understanding the concepts of business and its forms of organizations involved insole trader, partnership firms, companies and co-operative societies and public enterprise.	K1
2	Analyzing the business factors which are involved in sources of finance.	K2
3	Explaining the functioning of stock exchanges SEBI, DEMAT of shares.	K2
4	Remembering office functions, layout and accommodation.	K1
5	Outlining office equipments and EDP.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		
Course Title : Agriculture Economics of India		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the Agricultural Economy of the India and measure the development of agriculture in India	K2
2	Identify the problems and prospects of Indian agriculture and importance of greenrevolution.	K2
3	Study the agricultural marketing, pricing and their effect marketing system	K2
4	Outline the land tenure and land ceiling system in India	K1
5	Understand the role of agricultural banks for rural economic development	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		
Course title :Financial Accounting		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Describing the concepts based on depreciation and its methods in books ofaccounts.	K3
2	Outline about the nature of Investment and Royal excluding Sublease.	K5
3	Identifying the essential characteristics of single entry system.	K2
4	Applying the basic concepts of departmental and branch accounting.	K2
5	Familiarize the procedure relating to hire purchase and installment in books of accounts	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course title :Principles of Marketing		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Defining the various concepts and terms related to marketing	K1
2	Explaining about various marketing functions	K2
3	Understanding terms of consumer behavior and examined about different concepts related to consumers.	K2
4	Identifying the marketing mix and its elements	K4
5	Understanding different provisions related to trends in emerging markets.	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create		

Course title :Economic Analysis		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand The Fundamentals of Micro Economic And Theory Consumer Behaviour	K2
2	Learn the concepts of demand and elasticities of demand	K2
3	Understand theories of production, cost and revenue concepts	K2
4	Analyse the price and output determination under various market structures	K4
5	Acquire knowledge on theories of productivity and wages	K2
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course title :Higher Financial Accounting		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understanding the basic concepts of partner and procedures related tocalculation of ratios.	K2
2	Acquiring the principle at the time of retirement in the books of partner	K1
3	Analyzing dissolution and insolvency of firms and individuals.	K4
4	Evaluate the insolvency or loss of individuals or firms.	K5
5	Examine the concepts based on voyage, Human resource and inflation accounting.	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course title :Commercial Law		
Course Outcomes:		
Assessing the various elements related business law and contract		K5
Interpreting different type of contract and its features		K2
Explain about the agency system related to creation and termination of agency		K5
Compare between rights and duties of indemnity, guarantee		K5
Examine the distinct between sale and agreement to sell and its features		K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course title: Principles of Management		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Explaining the concepts based on management and its features	K2
2	Summarizing the principles and importance of planning	K2
3	Interpreting various concepts based on organization and its element	K2
4	Examining the determinant so behavior and motivation theories	K4
5	Understanding the need and techniques of communication in management	K2
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course title: Mathematics for Business	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concepts of arithmetic and geometric series and different effective rates of interest for sinking fund, annuity and present value.	K2
2 Recall the basic concepts of addition and multiplication analysis and input and output analysis.	K1
3 Explain of variables, constants and functions and evaluate the firstand second order derivatives.	K2
4 Interpret integral calculus and determining definite and indefinite functions.	K2
5 Analyze the linear programming problem by using graphical solution and simple method.	K4

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

Course title: Business Application Software I	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 To know the basics on MS Word	K2
2 To study formatting features in MS Word	K2
3 To understand the concept of mail merge	K2
4 To gain knowledge on excel operations	K2
5 To acquire knowledge on Managing and Analyzing Complex Worksheet	K2

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title : Corporate Accounting I	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Explaining about the basic provisions towards issue of shares in market	K2
2 Understanding the concepts of debenture and its accounting	K2
3 Analyze the companies final accounts and Managerial Remuneration	K4
4 Estimating methods of goodwill and shares	K5
5 Examine various procedures related to liquidation of companies	K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title :Computer Applications in Business	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Recall the various concepts relating to computer and its various parts	K1
2 Understand the meaning of software's, operating systematic	K2
3 Understanding the meaning and utility of database management system	K2
4 Evaluate the various aspects of management information system	K5
5 Generating more ideas regarding the use of internet for business purpose	K6
1 Recall various terms of computer and its part	K1
2 Understand the meaning of software, operating system, programming language and its features	K2
3 Comparing Data Vs Information and its management system	K2
4 Understanding about various concepts of management information system	K2
5 Explain about networking and elements based on internet	K2

K1-Remember;K2-Understand;K3-Apply;K4-Analyze;K5-Evaluate;K6-Create

Course title: Company Law and Secretarial Practice	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Define the fundamentals of corporate law	K1
2	Identify the role, responsibilities, appointment and liabilities of corporate directors	K2
3	Analyzing various winding up procedures, regulations and formalities under law	K4
4	Examine the role of corporate secretary ship and specific conditions	K4
5	Outline corporate level meetings with regard to duties of company secretary, drafting correspondence, Notice, Agenda and Minutes	K2

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Executive Business Communication	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Outline the importance of effective business communication	K2
2	Understand the intricacies of responding to business related queries	K2
3	Categorizing effective correspondence with banks, insurance and agencies	K3
4	Examine effective response to company secretarial correspondence	K4
5	Analyze new innovative and effective ideas for business communication	K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title :Statistics for Business	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of arithmetic and geometric mean and different types of data collection.	K2
2	Recall measures of dispersion.	K1
3	Execute correlation and regression analysis.	K3
4	Understand the different types of moving averages.	K2
5	Analyze interpolation and probability	K4

K1-Remember; **K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title: Corporate Accounting-II	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall various concepts and methods of preparing accounts under mergers and acquisitions	K1
2	Understand various methods of preparing holding company accounts	K2
3	Understand various methods of preparing and assessing final accounts of banking companies	K2
4	Analyze the final accounts of insurance companies	K4
5	Analyze the accounting statements of electricity companies	K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title: Banking Theory Law and Practices	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remembering the various terms and concepts used in banking industry	K1
2	Understanding the various process and activities of accounts in banks	K2
3	Outline various features of cheques for easy and simple banking	K2
4	Examine the various loans and advance related process in banks	K4
5	Classifying various kind of documents involved in banking services	K2

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course title: Cost Accounting	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall various concepts of costing and costing methods	K1
2	Analyze the various elements of costing	K4
3	Explain the labour wage payment system	K2
4	Outline the cost under process costing system	K2
5	Examine about operational costing, contract costing and Reconciliation of Cost and Financial Statements.	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Income Tax Law and Practices	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Outline the various terminologies related to income tax	K1
2	Understand the method of calculating and levying tax	K2
3	Apply the various tax laws and available provisions in tax computations	K3
4	Evaluate the set off and carry forward of losses while calculating personal income	K5
5	Analyze self-assessment of income and tax computation	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Business Finance	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Outline various concepts relating to finance	K2
2	List the various techniques of financial planning	K2
3	Analyze various sources and forms of finance	K4
4	Examine the various dimensions of capital market and their components	K4
5	List the capitalization concept and related theories for decision making	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Business Application Software II	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts computer applications using MS-PowerPoint	K2
2	Create and do effective presentation for the business meeting using power point presentation.	K2
3	Understand the basic concepts computer applications using MS-Access	K2
4	Generate the data base using MS-Access	K2
5	Examine the Filtering and Querying Tables	K2
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Management Accounting	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Outline the various concepts relating to management accounting	K2
2	Analyze financial statements using ratio analysis	K4
3	Evaluate the working capital management of companies	K5
4	Comparing various alternatives using marginal costing and decision making	K2
5	Analyze new budget and budgetary control for organizations	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Principles of Auditing	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Define the important concept and rules relating to auditing	K1
2	Outline the techniques and applicability of internal audit	K2
3	Analyze the valuation of assets and liabilities in business	K4
4	Analyze the accounts and auditing the joint stock companies	K4
5	Examine about investigation and auditing of computerized accounts	K4
K1-Remember; **K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title: Indirect Taxes	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall various concepts relating to Indirect tax regime in India	K1
2	Analyze the concept and applicability of GST in businesses	K4
3	Compare the GST regime with other indirect tax laws prior to it	K2
4	Illustrate GST system in own business and other prototypes	K2
5	Examine the custom law and related duties and taxes	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course title : Computer Applications - MSWord And MS Excel and Tally Practical	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remember the basic concepts computer applications using MS-Office Applications for the business transactions.	K2
2	Creating and preparing the programmes in Tally package	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**–Create	

Course title: Entrepreneurial Development	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the importance and role of entrepreneurship as an economic activity	K1
2	Explain the various process of setting up a startup	K2
3	Outline the various institutional services to entrepreneur	K2
4	Analyze the various financial institution available to support entrepreneurs	K4
5	List the various subsidies and incentives available for entrepreneurs	K1
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**–Create	

Course title :Financial Markets	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Define the basic concepts of financial market	K1
2	Analyze the working and components of corporate securities market	K4
3	Explain the functioning of stock exchanges in India	K4
4	Explain the role of banks and intermediaries in financial market	K4
5	Apply various trends and new modes in financing	K3
K1-Remember; **K2**-Understand; **K3**-Apply;**K4**-Analyse; **K5**-Evaluate;**K6**–Create	

Sri Ramalinga Sowdambigai College of Science & Commerce

An ISO 9001:2015 Certified Institution | Co-Education | Affiliated to Bharathiar University

Department of Computer Science

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

B.Sc. COMPUTER SCIENCE – PEOs, PSOs & Pos

Program Educational Objectives (PEOs)	
The **B. Sc. Computer Science** program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To enrich knowledge in core areas related to the field of computer science and mathematics.
PEO2	To provide opportunities for acquiring in-depth knowledge in Industry 4.0/5.0tools and techniques and there by design and implement software projects to meet customer's business objectives.
PEO3	To enable graduates to pursue higher education leading to Master and Research Degrees or have a successful career in industries associated with Computer Science or as entrepreneurs
PEO4	To enhance communicative skills and inculcate team spirit through professional activities, skills in handling complex problems in data analysis and research project to make them a better team player.
PEO5	To embed human values and professional ethics in the young minds and contribute towards nation building.
PEO9	To develop project

Program Specific Outcomes (PSOs)	
After the successful completion of **B.Sc. Computer Science** program, the students are expected to	
PSO1	Impart the fundamental principles and methods of Computer Science to a wide range of applications.
PSO2	Develop and deploy applications of varying complexity using the acquired knowledge in various programming languages, data structures and algorithms,database and networking skills.
PSO3	To investigate, analyze complex problems by the application of suitable mathematical and research tools, to design Information Technology products and solutions
PSO4	To identify and utilize the state-of-the-art tools and techniques in the design and development of software products and solutions.
PSO5	Ability to identify, interpret, analyze and design solutions using appropriate algorithms of varying complexities in the field of information andcommunication technology

Program Outcomes (POs)	
On successful completion of the B.Sc. **Computer Science** program	
PO1	**Disciplinary knowledge:** Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and designof computer-based systems of varying complexity.
PO2	**Scientific reasoning**/ **Problem analysis**: Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field ofcomputer science.

PO3	**Problem solving:** Able to provide software solutions for complex scientific and business-related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.	
PO4	**Environment and sustainability:** Understand the impact of software solutions in environmental and societal context and strive for sustainable development.	
PO5	**Modern tool usage:** Use contemporary techniques, skills and tools necessary for integrated solutions.	
PO6	**Ethics:** Function effectively with social, cultural and ethical responsibility as an individual or as a team member with positive attitude.	
PO7	**Cooperation / Team Work:** Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.	
PO8	**Communication Skills:** An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to different groups.	
PO9	**Self-directed and Life-long Learning:** Graduates will recognize the need forself-motivation to engage in lifelong learning to be in par with changing technology.	
PO10	Enhance the research culture and uphold the scientific integrity and objectivity	

COURSE OUTCOMES FOR B.Sc. COMPUTER SCIENCE

Course Title: Computing Fundamentals and C Programming Theory (CS,IT,BCA)	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Learn about the Computer fundamentals and the Problem solving	**K2**
2	Understand the basic concepts of C programming	**K2**
3	Describe the reason why different decision making and loop constructs are available for iteration in C	**K3**
4	Demonstrate the concept of User defined functions, Recursions, Scope and Life time of Variables, Structures and Unions	**K4**
5	Develop C programs using pointers Arrays and file management	**K3**

K1-Remember; **K2**-Understand; **K3**-Apply; **K4**-Analyze; **K5**-Evaluate; **K6**-Create

Course Title: Computing Fundamentals and C Programming Lab (CS,IT,BCA)	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series **(Program-1,2,3)**	**K1, K2**
2	Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers **(Program-4,5,6,8,10)**	**K2, K3**
3	Remember the logic used in counting the vowels in a sentence **(Program-7)**	**K1**
4	Apply and Analyze the concepts of Structures and File management **(Program-9,11,12)**	**K3&K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Digital Fundamentals and Computer Architecture (CS,IT,BCA)	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.	K3
2	Define the functions to simplify the Boolean equations using logic gates.	K1
3	Understand various data transfer techniques in digital computer and control unit operations.	K2
4	Compare the functions of the memory organization	K4
5	Analyze architectures and computational designs concept related to architecture organization and addressing modes	K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: C++PROGRAMMING (Theory & LAB) (CS,IT,BCA)	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Define the different programming paradigm such as procedure oriented and object oriented programming methodology and conceptualize elements of OO methodology	K1
2	Illustrate an model real world objects and map it into programming objects for a Legacy system.	K2
3	Identify the concepts of inheritance and its types and develop applications using Overloading features.	K3
4	Discover the usage of pointers with classes	K4

5	Explain the usage of Files, templates and understand the importance of exception Handling	K5

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: INTERNET BASIC LAB (CS,IT,BCA)
Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the fundamentals of Internet and the Web concepts	K2
2	Explain the usage of internet concepts and analyze its components.	K2
3	Identify and apply the online information resources	K3
4	Inspect and utilize the appropriate Google Apps for education effectively	K3, K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: DATA STRUCTURE (CS,IT,BCA)
Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the basic concepts of data structures and algorithms	K1-K2
2	Construct and analyze of stack and queue operations with illustrations	K2-K4
3	Enhance the knowledge of Linked List and dynamic storage management.	K2-K3
4	Demonstrate the concept of trees and its applications	K2-K3
5	Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations	K1-K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: JAVA PROGRAMMING Theory (CS,IT,BCA)
Course Outcomes:

On the successful completion of the course, student will be able to:

1	The competence and the development of small to medium sized application Programs that demonstrate professionally accept able coding	K1-K2
2	Demonstrate the concept of object oriented programming through Java	K2-K4
3	Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handling And data persistence to develop java program	K3
4	Develop java programs for applets and graphics programming	K3
5	Understand the fundamental concepts of a WT controls, layouts and event.	K1-K2

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: JAVA PROGRAMMING LAB (CS,IT,BCA)
Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding	**K1, K2**
2	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping	**K2**
3	Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.	**K2, K3**
4	Develop applications using Strings, Interfaces and Packages and applets	**K3**
5	Construct Java programs using Multithreaded Programming and Exception Handling	**K3**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Software Engineering and Software Project Management (CS ONLY)
Course Outcomes:

	On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of software engineering	K1
2	Apply the software engineering models in developing software applications	K2-K3
3	Implement the object oriented design in various projects	K4
4	Knowledge on how to do a software project within-depth analysis.	K3
5	ToinculcateknowledgeonSoftwareengineeringconceptsinturngivesaroad map to design a new software project.	K1-K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Lab–Software ProjectManagement
Course Outcomes:

	On the successfulcompletion of the course, studentwill beable to:	
1	Understand the basic concepts of Internet, WWW, browsers and Email and protocols	K1
2	Understand and apply the HTML,HTML elements and formatting styles	K1- K3
3	Knowledge on creating tables, forms and DHTML	K3
4	Understand the structure of XML document, DTD and Schema	K1- K3
5	Knowledge on working with SML, Style sheet sand XSL	K1- K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: System Software and Operating Systems
Course Outcomes:

	Onthesuccessful completionofthecourse,student willbe ableto:	
1	Know the program generation andprogram execution activities in detail	K1
2	Understand the concepts of Macro Expansions and Gain the knowledge of Editing Processes	K2-K3
3	Remember the basicconcepts of operating system	K1
4	Understand the conceptslike interrupts, dead lock, memory management and file management	K2
5	Analyze the need for scheduling algorithms and implement different Algorithms usedforrepresentation,scheduling,andallocationinDOSandUNIXoperating system.	K1-K4

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Linux and Shell Programming
Course Outcomes:

	On the successfulcompletion of the course, studentwill beable to:	
1	Describe the architecture and features ofLinux Operating System and distinguish it from otherOperatingSystem.	K1
2	Develop Linux utilities to perform File processing, Directory handling, User Management anddisplay systemconfiguration	K2-K3
3	Develop shell scripts using pipes, redirection, filters and Pipes	K2
4	Apply and change the ownership and file permissions using advance Unix commands.	K3
5	BuildRegularexpressiontoperformpatternmatchingusingutilities And implement shellscriptsfor realtime applications.	K3-K6

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: RDBMS & Oracle	
Course Outcomes:	
On the successfulcompletion of the course, studentwill beable to:	
1	Understandthebasicconceptsof Relational DataModel, Entity-Relationship Modeland process ofNormalization	**K1-K2**
2	Understand and construct database using Structured Query Language (SQL) inOracle9ienvironment.	**K1-K3**
3	Learn basics of PL/SQL and develop programs using Cursors, Exceptions ,ProceduresandFunctions.	**K1-K4**
4	Understandandusebuilt-infunctionsandenhancetheknowledgeof handling multiple tables	**K1-K3**
5	Attain a good practical skill of managing and retrieving of data using Data ManipulationLanguage(DML)	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Visual Basic	
Course Outcomes:	
On the successfulcompletion of the course, studentwill beable to:	
1	Demonstrate fundamental skill sinutilizing the tools of a visual environment such As command, menus and toolbars.	**K1**
2	Implement SDI and MDI applications using forms, dialogs and other types of GUI components.	**K2**
3	Understand the connectivity between VB with MS-ACCESS database.	**K3**
4	Implement the methods and techniques to develop projects.	**K4**
5	Attain a good practicalskill ofmanagingODBC and DataAccess Objects	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: ProgrammingLab–VB &Oracle	
Course Outcomes:	
On the successfulcompletion of the course, studentwill beable to:	
1	Understand theconcepts of Visual Basic.	**K1**
2	Learn the advantages of Controls in VB	**K2**
3	Design and develop the event-driven applications using Visual Basic frame work.	**K3**
4	Apply the knowledge ofdata base methods.	**K4**
5	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedure sandFunctions	**K6**
K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create	

Course Title: Computer Networks	
Course Outcomes:	
On the successfulcompletion of the course, studentwill beable to:	
1	Remember the organization of computer networks, factors influencingcomputer network development and the reasons for having variety of different types of networks.	**K1**
2	Understand Internet structure and can see how standard problems are solved and The use of cryptographyand network security.	**K2**
3	Apply knowledge of different techniques of error detection and correction to detect And solve error bitduring data transmission.	**K3**
4	Analyzetherequirementsforagivenorganizationalstructureandselectthemost appropriate networking architecture andtechnologies	**K4**
5	Knowledgeabout different computernetworks,referencemodelsandthefunctions of eachlayerinthe models	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Software Testing		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Explain the basic concepts andthe processes that leadto software testing	**K2**
2	Design test cases from the given requirements using Black box testing techniques	**K3**
3	Identify the testcases fromSource code by means ofwhite boxtesting techniques	**K3**
4	Know about useracceptance testing and generatetest cases for it	**K4**
5	Examine thetest adequacycriteria to complete the testing process	**K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: Graphics & Multimedia		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle-Generating and Ellipse-Generating.	**K2**
2	Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques	**K3**
3	Studies concepts ofMultimedia Systems, Text,Audio andVideo tools	**K3**
4	Compressing audio and video using MPEG-1 and MPEG-2	**K4**
5	Creates Animation with special effects using algorithms	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: Project Work Lab		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Formulate a real world problem and develop its requirements develop a design solution for a setofrequirements.	**K3**
2	Test and valid ate the conform an of the developed proto type against the original requirements ofthe problem.	**K5**
3	Work as a responsible member and possibly a leader of at a in developing software solutions.	**K3**
4	Expresstechnicalideas,strategiesandmethodologiesinwrittenform.Self-learn newtools,algorithmsandtechniquesthatcontributetothesoftware solutionof the project.	**K1-K4**
5	Generate alternative solutions, compare themand select the optimum one.	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: Programming Lab – Graphics & Multimedia		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Understand the basic concepts of computer graphics.	**K1**
2	Designs can conversion problems using C and C++ programming.	**K2**
3	Apply clipping and filling techniquesfor modifying an object.	**K3**
4	Understand theconcepts of different type of geometric transformation of object sin2D.	**K4**
5	Understandanddeveloppthepracticalimplementationofmodeling,rendering, viewing ofobjectsin2D	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create **K2**		

Course Title: Data Mining		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Identify data mining tools and techniques in building intelligent machines understand	**K1-K2**
2	Analyze various datamining algorithmsin applyingin realtime applications.	**K2-K4**
3	Demonstrate the data mining algorithms to combinatorial optimization problems	**K2-K3**
4	Illustrate the mining techniques like association, classification and clustering on Transactional databases.	**K2-K3**
5	Perform exploratory analysisof the data tobe usedfor mining.	**K3-K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: ProgrammingLab– Software Testing lab - 4		
Course Outcomes:		
On the successfulcompletion of the course, studentwill beable to:		
1	Understand the importance of software quality/software testing andapply software testingtechniques forinformationsystems development.	**K1**
2	Generate test cases from software requirements using various test processes for continuous qualityimprovement.	**K2**
3	Understand flow graphs andapply path testing.	**K3**
4	Applysoftwaretesting techniquesincommercialenvironmentsandassessthe adequacy of test suitesusing control flow, dataflow and program mutation.	**K4**
5	Identify the inputs and deliverables of the testing process andwork together as a team in preparinga report	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Department of Information Technology

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

B.Sc. INFORMATION TECHNOLOGY–PEOs,PSOs & POs

Program Educational Objectives (PEOs)	
The B. Sc. Information Technology program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To obtain in-depth knowledge of software and hardware techniques, which provide a compact foundation to pursue continuing education and nurture the talent for innovation and research.
PEO2	To Engage in the Information Technology related Profession locally and globally by contributing ethically to the competent and professional practices.
PEO3	To enable Graduates will be skilled in the use of modern tools for critical problem solving and analyzing industrial and societal requirements
PEO4	To train the graduates in diversified and applied areas with analysis, design and synthesis of data to create novel products and solutions to meet current industrial and societal needs.
PEO5	To nurture talent in leadership qualities, at levels appropriate to their experience, which addresses issues in a responsive, ethical, and innovative manner.

Program Specific Outcomes (PSOs)	
After the successful completion of B.Sc. Information Technology program, the students are expected to	
PSO1	Develop an ability to communicate effectively with a range of audiences. Develop written and oral presentations of information technology solutions appropriate for a wide range of audiences.
PSO2	Develop and analyze quality computer applications by applying knowledge of software engineering, algorithms, programming, databases and networking.
PSO3	The graduates of the Program will be prepared to achieve their career goals in the software industry or pursue higher studies and enhance their professional knowledge.
PSO4	To identify and utilize the state-of-the-art tools and techniques in the design and Development of software products and solutions.
PSO5	Practical experience in shipping real world software, using recent industry standard tools and collaboration techniques will equip to secure and succeed in IT industry

Program Outcomes (POs)	
On successful completion of the B.Sc. Information Technology program	
PO1	**Disciplinary knowledge:** Capable to apply the knowledge of mathematics, algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	**Scientific reasoning**/ **Problem analysis**: Ability to critically analyze, categorizes, Formulate and solve the problems that emerges in the field of computer science.
PO3	**Problem solving:** Able to provide software solutions for complex scientific and business related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	**Environment and sustainability:** Understand the impact of software solutions In environmental and societal context and strive for sustainable development.
PO5	**Modern tool usage:** Use contemporary techniques, skills and tools necessary for integrated solutions.
PO6	Ethics: Function effectively with social, cultural and ethical responsibility as an individual or as a team member with positive attitude.
PO7	**Cooperation / Team Work:** Function effectively as member or leader on multidisciplinary teams to accomplish a common objective.
PO8	**Communication Skills:** An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to different groups.
PO9	**Self-directed and Life-long Learning:** Graduates will recognize the need for self-motivation to engage in lifelong learning to be in par with changing technology.
PO10	Enhance the research culture and uphold the scientific integrity and objectivity

COURSE OUTCOMES FOR B.Sc INFORMATION TECHNOLOGY

Course Title: Computing Fundamentals and C Programming Theory

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Learn about the Computer fundamentals and the Problem solving	**K2**
2	Understand the basic concepts of C programming	**K2**
3	Describe the reason why different decision making and loop constructs are availablefor iteration in C	**K3**
4	Demonstrate the concept of User defined functions, Recursions, Scope and Life time of Variables, Structures and Unions	**K4**
5	Develop C programs using pointers Arrays and file management	**K3**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Computing Fundamentals and C Programming Lab

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series **(Program-1,2,3)**	**K1, K2**
2	Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers **(Program-4,5,6,8,10)**	**K2, K3**
3	Remember the logic used in counting the vowels in a sentence **(Program-7)**	**K1**
4	Apply and Analyze the concepts of Structures and File management **(Program-9,11,12)**	**K3&K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Digital Fundamentals and Computer Architecture

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.	**K3**
2	Define the functions to simplify the Boolean equations using logic gates.	**K1**
3	Understand various data transfer techniques in digital computer andcontrol unit operations.	**K2**
4	Compare the functions of the memory organization	**K4**
5	Analyze architectures and computational designs concept related to architectureorganization and addressing modes	**K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: C++PROGRAMMING (Theory & LAB)

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Define the different programming paradigm such as procedure oriented and objectoriented programming methodology and conceptualize elements of OO methodology	**K1**
2	Illustrate an model real world objects and map it into programming objects for a Legacy system.	**K2**
3	Identify the concepts of inheritance and its types and develop applications usingOverloading features.	**K3**
4	Discover the usage of pointers with classes	**K4**
5	Explain the usage of Files, templates and understand theimportance of exception Handling	**K5**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: INTERNET BASIC LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the fundamentals of Internet and the Web concepts	**K2**
2 Explain the usage of internet concepts and analyze its components.	**K2**
3 Identify and apply the online information resources	**K3**
4 Inspect and utilize the appropriate Google Apps for education effectively	**K3, K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: DATA STRUCTURE	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concepts of data structures and algorithms	**K1-K2**
2 Construct and analyze of stack and queue operations with illustrations	**K2-K4**
3 Enhance the knowledge of Linked List and dynamic storage management.	**K2-K3**
4 Demonstrate the concept of trees and its applications	**K2-K3**
5 Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations	**K1-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: JAVA PROGRAMMING Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 The competence and the development of small to medium sized applicationPrograms that demonstrate professionally accept able coding	**K1-K2**
2 Demonstrate the concept of object oriented programming through Java	**K2-K4**
3 Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handlingAnd data persistence to develop java program	**K3**
4 Develop java programs for applets and graphics programming	**K3**
5 Understand the fundamental concepts of a WT controls, layouts andevent.	**K1-K2**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: JAVA PROGRAMMING LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding	**K1, K2**
2 Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping	**K2**
3 Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.	**K2, K3**
4 Develop applications using Strings, Interfaces and Packages and applets	**K3**
5 Construct Java programs using Multithreaded Programming and Exception Handling	**K3**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Introduction To Web Design And Applications	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the fundamentals of Electronic mail, web page installation and set up	**K2**
2	Understand the basics of internet, internet congestion, culture and WWW.	**K2-K3**
3	Understand the world wide web, searching in WWW, telnet and FTP.	**K4**
4	Knowledge on basics of HTML, HTML tags, tables, frames, CSS and next generation HTML	**K3**
5	Knowledge on news groups, mailing list, chat rooms and MUDs.	**K1-K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: System Software and Operating Systems	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Know the program generation and program execution activities in detail	**K1**
2	Understand the concepts of Macro Expansions and Gain the knowledge of Editing Processes	**K2-K3**
3	Remember the basic concepts of operating system	**K1**
4	Understand the concepts like interrupts, dead lock, memory management and filemanagement	**K2**
5	Analyze the need for scheduling algorithms and implement different Algorithms used for representation, scheduling, and allocation in DOS and UNIX operating System.	**K1-K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Linux and Shell Programming Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Describe the architecture and features of Linux Operating System and distinguish itfrom other Operating System.	**K1**
2	Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration	**K2-K3**
3	Develop shell scripts using pipes, redirection, filters and Pipes	**K2**
4	Apply and change the ownership and file permissions using advance Unix commands.	**K3**
5	Build Regular expression to perform pattern matching using utilities And implement shell scripts for real time applications.	**K3-K6**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Linux and Shell Programming LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Develop Linux utilities to perform File processing, Directory handling and User Management	**K1, K2**
2	Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration	**K2-K3**
3	Develop simple shell scripts applicable to file access permission network administration	**K3**
4	Apply and change the ownership and file permissions using advance Unix commands	**K4-K5**
5	Create shell scripts for real time applications.	**K6**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Lab – HTML, XML, JAVASCRIPT	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basics of java script, HTML and XML, programming statements and design web pages.	**K2-K6**
2	Understand and apply the XML programming constructs, DTD and develop Applications.	**K2-K6**
3	Understand the world wide web, searching in WWW, telnet and FTP.	**K4**
4	Knowledge on basics of HTML, HTML tags, tables, frames, CSS and next generation HTML.	**K2-K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: RDBMS & Oracle Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of Relational Data Model, Entity-Relationship Model and process of Normalization	**K1-K2**
2	Understand and construct database using Structured Query Language (SQL) inOracle9ienvironment.	**K1-K3**
3	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions.	**K1-K4**
4	Understand and use built-in functions and enhance the knowledge ofhandling multiple tables	**K1-K3**
5	Attain a good practical skill of managing and retrieving of data usingData Manipulation Language(DML)	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Visual Basic Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Demonstrate fundamental skills in utilizing the tools of a visual environment such As command, menus and toolbars.	**K1**
2	Implement SDI and MDI applications using forms, dialogs and other types of GUI components.	**K2**
3	Understand the connectivity between VB with MS-ACCESS database.	**K3**
4	Implement the methods and techniques to develop projects.	**K4**
5	Attain a good practical skill of managing ODBC and Data Access Objects	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Programming Lab–VB &Oracle	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the concepts of Visual Basic.	**K1**
2	Learn the advantages of Controls in VB	**K2**
3	Design and develop the event-driven applications using Visual Basic frame work.	**K3**
4	Apply the knowledge of data base methods.	**K4**
5	Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions	**K6**
K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create	

Course Title: ANIMATION TECHNIQUES		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basics of animation, need of animations, types of animation, techniques of animation and special effects	**K2**
2	Understand and apply animations in flash, working with time time-line and frame based animations, tween-based animations and layers.	**K3**
3	Knowledge on working with time-line, frame-based and tween-based animation	**K3**
4	Understanding the motion caption, software to capture the motion.	**K4**
5	Apply the animation concepts and concept development to develop or create 3D animated movies	**K4-K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Dot Net Programming		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basics of .NET framework and the object oriented programming.	**K2**
2	Understand the procedures, File I/O, Error handling and Message queues.	**K3**
3	Understand and remember the components in VB.NET IDE, ADO.NET and also the window forms.	**K3**
4	Understand the HTML server controls, Web controls, Validation controls and state management and tracing.	**K4**
5	Knowledge on SOAP, building web services and deploying and publishing web services, Finding and consuming web services.	**K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Graphics & Multimedia Theory		
Course Outcomes:		
On the success ful completion of the course, student will be able to:		
1	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle-Generating and Ellipse-Generating.	**K2**
2	Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques	**K3**
3	Studies concepts of Multimedia Systems, Text, Audio and Video tools	**K3**
4	Compressing audio and video using MPEG-1 and MPEG-2	**K4**
5	Creates Animation with special effects using algorithms	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Programming Lab – Graphics & Multimedia		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts of computer graphics.	**K1**
2	Designs can conversion problems using C and C++ programming.	**K2**
3	Apply clipping and filling techniques for modifying an object.	**K3**
4	Understand the concepts of different type of geometric transformation of objectsin2D.	**K4**
5	Understand and develop the practical implementation of modeling,rendering, viewing of objects in 2D	**K6**
K1-Remember; **K2**-Understand; **K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Project Work Lab		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Formulate a real world problem and develop its requirements develop a design solution for a set of requirements.	**K3**
2	Test and validate the conformance of the developed prototype against the original requirements of the problem.	**K5**
3	Work as a responsible member and possibly a leader of at a in developing software solutions.	**K3**
4	Expresstechnicalideas,strategiesandmethodologiesinwrittenform.Self-learn new tools, algorithms and techniques that contribute to the software Solution of the project.	**K1-K4**
5	Generate alternative solutions, compare them and select the optimum one.	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: PYTHON Programming		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Remembering the concept of operators, data types, looping statements in Python programming.	**K1**
2	Understanding the concepts of Input / Output operations in file..	**K2**
3	Applying the concept of functions and exception handling	**K3**
4	Analyzing the structures of list, tuples and maintaining dictionaries	**K4**
5	Demonstrate significant experience with python program development environment	**K4-K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Internet of Things (IoT)		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	To understand the fundamentals of Internet of Things.	**K1**
2	To know the basics of communication protocols and the designing principles of Web connectivity.	**K2**
3	To gain the knowledge of Internet connectivity principles	**K2-K3**
4	Designing and develop smart city in IoT	**K2-K3**
5	Analyzing and evaluate the data received through sensors in IOT.	**K4-K5**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Lab – DOT NET LAB		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basics of VB.NET and develop windows applications.	**K2, K4, K6**
2	Understand the concept of tree view control and illustrate it the using VB.NET.	**K2, K4, K6**
3	Understand and apply exception handling in VB.NET.	**K2, K4, K6**
4	Understand menu resource and create application using menus	**K2, K4, K6**
5	Develop database applications in VB.NET.	**K2, K4, K6**
K1-Remember; **K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Department of BBA CA
2022– 2023

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

BBA CA – PEOs, PSOs & POs

Program Educational Objectives (PEOs)	
PEO1	Graduates will be capable of making a positive contribution to business, trade and industry in the national and global context in the IT era.
PEO2	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.
PEO3	Graduates will have a solid foundation to pursue professional careers and take up higher learning courses such as MBA, MCA, MCM, MMM as well as research.
PEO4	Graduates with a flair of self-employment will be able to initiate and build upon entrepreneurial ventures or demonstrate entrepreneurship for their employer organizations.
PEO5	Graduate will recognize the need for adapting to change and have the aptitude and ability to engage in independent and life – long learning in the broadest context of socio-economic, technological and global change.

Program Specific Outcomes (PSOs)	
PSO 1 :	Understand of the corporate world
PSO 2 :	Analyse the theoretical knowledge with the practical aspects of Organizational setting and techniques or management.
PSO 3 :	Determine conceptual and analytical abilities required for effective decision making.
PSO 4 :	Understand the dynamic and complex working environment of Business.
PSO 5 :	Understand the problems faced by the business sector in the Current scenario.
PSO 6 :	Analyse the ups and downs of the stock market.
PSO 7 :	Understand the rapid changes of financial services include banking and insurance sectors.
PSO 8 :	Understand the micro and macro marketing environment.
PSO 9 :	Understand the international trade procedure and documentation.
PSO 10 :	Understand the Forms of business organization.
PSO 11 :	Understand the business correspondence and communication.
PSO 12 :	Determine the organizational behaviour and its conflict.

Program Outcomes (POs)	
PO1	Develop the knowledge, skill and attitude to creatively and systematically apply the principles and practices of management, accountancy, finance, business law, statistics, HR, operations and IT to management problems and work effectively in modern day business and non-business organizations.
PO2	Develop fundamental in-depth knowledge and understanding of the principles, concepts, values, substantive rules and development of the core areas of business such as finance, accounting, marketing, HR, operations along with the tools such as Tally, MS Excel, MS Office, etc.
PO3	Demonstrate the critical thinking mindset and the ability to identify and formulate research problems, research literature, design tools, analyze and interpret data, and synthesize the information to provide valid conclusions and contextual approaches across a variety of subject matter.
PO4	Exhibit self-confidence and awareness of general issues prevailing in the society and communicate effectively with the accounting, commerce, management, business, professional fraternity and with society at large through digital and non-digital mediums and using a variety of modes such as effective reports & documentation, effective presentations, and give and receive clear instructions.
PO5	Function effectively as an individual and as a member or leader in teams, and in multidisciplinary settings by demonstrating life skills, coping skills and human values.
PO6	Analyse the sampling techniques of collecting primary and secondary data and tools and techniques of data.
PO7	Understand the methods of collecting primary and secondary data. Construction of scaling techniques and Determine the steps involved in design of questionnaire. Analyse and preparation of project report for the Functional areas of research.
PO8	Determine the functional areas of management such as Production, purchasing, marketing, sales, advertising, finance, human resource system, Industry 4.0Understand the SERQUAL of the various service industries.
PO9	Analyse the various aspect of business research in the area of marketing, human resource and Finance.
PO10	Analyse the various financial and accounting concept including Balance sheet , trial balance, etc.,

COURSE OUTCOMES FOR BBA CA

	Course Title : PRINCIPLES OF MANAGEMENT	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Examine and explain the management evolution and how it will affect future managers.	**K1**
2	Estimate the conceptual framework of planning and decision-making in day to day life.	**K2**
3	Explain the various managerial functions to achieve the goals and objectives of the organization.	**K1**
4	Analyze the theories of motivation, leadership and communication in a variety of circumstances and management practices in organizations.	**K4**
5	Identify and explain the importance of the management process and identify some of the key skills required for the contemporary management practice.	**K3**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : BASICS OF BUSINESS & BUSINESS ENVIRONMENT	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
Develop an understanding on the gamut of business activities	K2
Explain the intricacies in starting a business and knowing the suited business form	K2
Design a business model in order to analyze its sustainability	K3
Comprehend the environmental factors that are conducive /detrimental to the respective businesses	K4
Have a simple and basic comprehension of the international scenario with regard to borderless business world	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

	Course Title : MATHEMATICS AND STATISTICS FOR MANAGEMENT	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Solve systems of linear equations by use of the matrix	**K3**
2	Be able to find the nature (maximum and minimum) of a turning point	**K5**
3	Outline the meaning of marginal revenue and marginal cost and their relevance for firm's profitability.	**K1**
4	Understand and compute the sampling distributions, sampling distributions of means and variances (S2) and the t- and F-distributions	**K1**
5	Summarize a regression analysis, and compute and interpret the coefficient of correlation.	**K2**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

	Course Title : ORGANISATIONAL BEHAVIOUR	
	Expected Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Analyze the individual and group behavior; and understand the implications of organizational behaviour on the process of management	**K4**

2	Identify various theories of motivation from the past and to evaluate motivational strategies used in a variety of organizational settings	K5
3	Enhance productivity of the organization by ensuring required job satisfaction and employee attitude.	K3
4	Understand the supervisory effects on performance and to train supervisors by understanding different supervision styles.	K2
5	Evaluate the appropriateness of various leadership styles and counseling methods	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : ECONOMICS FOR EXECUTIVES

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

Apply the objectives of business firms, demand analysis and elasticity of demand in daily life and in their career.	K6
Identify the effective applications of factors of production and BEP Analysis	K3
Understand the determination of the Price, Market structure and competition.	K2
Describe the objectives and effectiveness of monetary policy and fiscal policy	K4
To gain Knowledge on Inflation, Deflation and effects of inflation.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : QUANTITATIVE TECHNIQUES FOR MANAGEMENT

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Define and formulate linear programming problems and evaluate their applications	K1
2	To understand concepts and terminology of Linear Programming from formulation of mathematical models to their optimization using Simplex Method	K1
3	To comprehend the concept of a Transportation Model and develop the initial solution and optimality checking of the solution	K2
4	To apply the strategies of game theory and to make better decisions while solving business problems	K3
5	Use critical path analysis and programming evaluation and review techniques for timely project scheduling and completion.	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : FINANCIAL ACCOUNTING

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Recall the accounting concepts and understand the rules of double entry system, journalizing and posting to ledger in the business transactions.	K1
2	Interpret the trial balance; identify the errors and to reconcile the bank statement by cash book.	K2
3	Summaries the manufacturing, trading, profit & loss account and balance sheet with the support of financial and accounting transactions.	K5
4	Illustrate the accounts for non-trading institutions through income & expenditure, receipts & payments along with the methods of depreciation.	K3
5	Classify the sections of accounting statements from incomplete data	K4

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyse; **K5** - Evaluate; **K6** – Create

Course Title : PRODUCTION AND MATERIALS MANAGEMENT

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Enumerate the production processes and production planning and control.	**K1**
2	Describe the importance of materials management function in an organization, and how it can help in integrating various plans and reduce the material related Costs	**K1**
3	Describe the material management, domestic and import purchase procedures And vendor rating and development.	**K2**
4	Out line management issues in receiving, stores, traffic and transportation, ware housing and physical distribution	**K4,**
5	Discuss about the quality control, Total Quality Management, Benchmarking and ISO	**K2**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**– Create

Course Title : MARKETING MANAGEMENT

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Recognize the significance of marketing and its role in economic development	K1
2	Recognize how market strategy works, market segmentation and product mix have impact on buying behaviour	K2,
3	To apply marketing concepts, pricing for the development of marketing function.	K3
4	Analyse and perform the functions of marketing in organisation.	K3
5	Demonstrate the critical thinking skills and analyse e-marketing.	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyse; **K5** - Evaluate; **K6** – Create

Course Title : PC SOFTWARE (MS OFFICE) – PRACTICAL

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Use Microsoft Office programs to create personal, academic and business documents following current professional and/or industry standards.	K1
2	Create scientific and technical documents incorporating equations, images, tables, and bibliographies.	K2
3	Develop technical and scientific presentations which use charts and visual aids to share data.	K3
4	Build spreadsheets to perform calculations, display data, conduct analysis, and explore.	K4
5	Design and construct databases to store, extract, and analyse scientific and real-world data.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyse; **K5** - Evaluate; **K6** – Create

Course Title : BUSINESS LAW

Expected Course Outcomes:

On the successful completion of the course, student will be able to:

1	Develop an understanding on business law in the global context	**K1**
2	Knowing the relevant legal terms in business	**K2**
3	To construct the relationship of ethics and law in business	**K3**
4	Applying basic principles of law to business and business transactions	**K4**
5	Implementing current law, rules and regulations related to settling business Disputes	**K5**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**– Create

Course Title : HUMAN RESOURCE MANAGEMENT	
Expected Course Outcomes:	
On the successful completion of the course, students will be able to:	
1	Analyze the process of Job analysis and its importance as a foundation of Human resource management practice.	**K3**
2	Understand the Human resource planning	**K4**
3	Apply the policies and practice of the primary areas of human resource management, including staffing, training and compensation.	**K3**
4	Understand the importance of career planning and succession planning	**K4**
5	Apply the policies and practice of the primary areas of human resource management, including staffing, training and compensation	**K2**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**– Create

Course Title : FINANCIAL MANAGEMENT	
Expected Course Outcomes:	
On the successful completion of the course, students will be able to:	
1	Use business finance terms and concepts while communicating.	**K3**
2	Explain the financial concepts used in making financial management decision.	**K4**
3	Use effective methods to promote respect and relationship for financial deals.	**K3**
4	Utilize information to maximize and manage finance.	**K4**
5	Demonstrate a basic understanding of Working Capital Management.	**K2**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**– Create

Course Title : FINANCIAL ACCOUNTING PACKAGE TALLY PRACTICAL	
Expected Course Outcomes:	
On the successful completion of the course, students will be able to:	
1	Understand basic Accounting concepts and principles	**K3**
2	Be able to generate Accounting and Inventory Masters, Vouchers and Basic Reports in Tally	**K4**
3	Understand Advanced Accounting and Inventory in Tally. ERP 9	**K3**
4	Have an understanding of Advanced Accounting and Inventory in Tally. ERP 9	**K4**
5	Understand basic concepts and practical application of VAT, CST, TDS and Service Tax	**K2**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course Title : TAXATION LAW AND PRACTICE	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Elucidate an understanding of theoretical and technical knowledge of taxation law principles as they apply through legislation, for both individuals and business entities.	**K2**
2	Analyse, generate and transmit solutions to complex problems in relation to taxation matters.	**K5**
3	To efficiently compute tax for Business and Profession and knowledge on tax authorities.	**K3**
4	To efficiently handle indirect taxes and GST.	**K3**
5	To be a potential person on the procedural compliance of tax.	**K3**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyse; **K5** - Evaluate; **K6** – Create

Course Title : COST AND MANAGEMENT ACCOUNTING	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understanding the concept of cost accounting, Recognize the merits and demerits of cost and management accounting along with the elements of cost concepts.	**K1**
2	Describe the cost sheets for the purpose of stores control through economic order quantity, pricing and material issues.	**K2**
3	Measure the financial statements through comparative and common size by using various financial ratios.	**K5**
4	Simplify the fund flow and cash flow statements by calculating funds and cash from operations.	**K4**
5	Produce various budgets and apply standard costing for material variances; marginal costing for cost volume profit.	**K3**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course Title : RESEARCH METHODS FOR MANAGEMENT	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand fundamental concepts of research types and research process.	**K2**
2	Summarize the sampling design and scaling techniques.	**K2**
3	Construct a method for data collection and able to edit, code, classify and Tabulate the collected data.	**K3**
4	Analyze the collected data to prove or disprove the hypothesis.	**K4**
5	Interpret the data and prepare a research report.	**K5**

K1-Remember;**K2** -Understand; **K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**–Create

Course Title : INTERNET AND WEB PAGE DESIGN (Theory)	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Comfortable creating, coding and posting basic HTML and CSS files to the Internet.	K2
2	Equipped with a historical understanding of the web's evolution	K2
3	Have a foundational knowledge of website creation and apply it to the planning, design and development of own web page.	K3
4	Create a full functioning website	K4
5	Equipped with key industry-standard design guidelines to ensure strong online presentation.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : Internet and Web Page Design Programming Laboratory (Practical)	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Comfortable creating, coding and posting basic HTML and CSS files to the Internet.	K2
2	Equipped with a historical understanding of the web's evolution	K2
3	Have a foundational knowledge of website creation and apply it to the planning, design and development of own web page.	K3
4	Create a full functioning website	K4
5	Equipped with key industry-standard design guidelines to ensure strong online presentation.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : ENTREPRENEURSHIPANDSMALL BUSINESS MANAGEMENT	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Define who is an Entrepreneur and what his or her characteristic features are, what Skills made them successful and what qualities are required to become an Entrepreneur.	K1
2	Foster the students in the areas of entrepreneurial growth and equip with different Entrepreneurial development programmes.	K2
3	Project management is a powerful discipline in the core areas of project lifecycle and To know about the roles and responsibilities of a project manager.	K3
4	Discriminatethebenefitsofdeliveringtheprojectidentificationandselectingthe successfulprojectwiththevariousguidelinesissuedbytheauthorities.	K5
5	Classify the various sources of business finance and identify the different institutions That supporting entrepreneurs.	K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**–Create	

Course Title : RDBMS AND ORACLE PROGRAMMING	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Write stored procedures, functions, packages, and triggers, and implement complex business rules with oracle	K3
2	Interpret different Queries to access the database.	K2
3	Underline Functional Dependency and Functional Decomposition. Apply various Normalization techniques.	K1
4	Write SQL code based on ANSI/ISO standards to build and maintain database structures	K3
5	Manipulate PL/SQL programming using concept of Cursor Management,	K3
K1 - Remember; **K2** - Understands; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title : RDBMS AND ORACLE PROGRAMMING-PRACTICAL	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Write stored procedures, functions, packages, and triggers, and implement complex business rules with oracle	K3
2	Interpret different Queries to access the database.	K2
3	Underline Functional Dependency and Functional Decomposition. Apply various Normalization techniques.	K1
4	Write SQL code based on ANSI/ISO standards to build and maintain database structures	K3
5	Manipulate PL/SQL programming using concept of Cursor Management,	K3
K1 - Remember; **K2** - Understands; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title : CAMPUS TO CORPORATE	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remember the industry expectations	K1
2	Understand the importance of etiquette in organizational culture	K2
3	Able to develop a confidence level and facing interviews	K3
4	Demonstrate a good command in responding to any queries	K4
5	Achieve the desired result thro proper evaluation of competencies and be creative	K5
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create	

Course Title : SOFT SKILLS FOR BUSINESS	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remember the various organizational entry level skill requirements	**K1**
2	Understand the need for different skill requirement at different occasions	**K2**
3	Able to appropriately respond to the situation during recruitment and selection	**K3**
4	Demonstrate a good command in work environment	**K4**
5	Achieve the desired result of a good employability	**K5, K6**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : Elective- I : ADVERTISING AND SALES PROMOTION	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	To Identify advertising mediums, both traditional, new and experimental	**K1**
2	To understand the function of Advertising Agencies	**K2**
3	To understand the principles of advertising layout and campaign	**K3**
4	To Learn to use sales promotions to push sales and attract buyers.	**K4**
5	To Identify advertising mediums, both traditional, new and experimental	**K5,**

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : Elective- II : INSURANCE PRINCIPLES&PRACTICE	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Examine the risk and relevance involved in insurance industry and to suggest the importance of insurance.	K1
2	Explain the importance of life insurance, terms and conditions of insurance, contract and products.	K2
3	Insight the knowledge of general insurance practice, laws, terms and conditions, claim and procedure of insurance.	K3
4	Differentiate the fire and marine insurance, general insurance, loss and recover. To study the terms and conditions of insurance.	K4
5	To Evaluate other business insurances and practices of Health insurance in Indian climate.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Course Title : Elective- III : E-COMMERCE	
Expected Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	To Understand e-commerce models -its benefits and limitations	K2
2	To use of market research tools in analyzing customer buying behavior	K3
3	To analyse the web advertising modes	K4
4	To understand the application of B2B e-commerce model	K2
5	To critically evaluate public policy on privacy and security	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** – Create

Sri Ramalinga Sowdambigai College of Science & Commerce

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Department of Computer Application

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

B.C.A – PEOs, PSOs & POs

Program Educational Objectives (PEOs)

The BCA program describe accomplishments that graduates are expected to attain within five to seven years after graduation

PEO 1	To impart advance knowledge about various sub-domains related to the field of computer applications
PEO 2	To provide the strong character to uphold the spiritual and cultural values of our country to make students acceptable to both industries and higher Education.
PEO 3	Graduates will be capable of attaining higher position in their professional carrier, capable to do quality research by strengthening their mathematical, Scientific and basic engineering fundamentals.
PEO 4	Graduate will be capable of adopting the changing technologies, tools, and industrial environment.
PEO 5	Graduates will promote collaborative learning and spirit of team work through Multidisciplinary projects and diverse professional activities.

Program Specific Outcomes (PSOs)

After the successful completion of BCA program, the students are expected to

PSO 1	Develop proficiency in problem solving and logical thinking skill.
PSO 2	To impart the knowledge of programming languages, web designing, networking and Software development cycle.
PSO 3	Enrich the communicative ability to present orally throughout all the stages of Software development process
PSO 4	Learn latest development and technologies in IT and Communications system.
PSO 5	Implementation of professional engineering solutions for the betterment of society keeping the environmental context in mind, be aware of professional ethics and be able to communicate effectively.

Program Outcomes (POs)

On successful completion of the BCA program

PO1	**Disciplinary knowledge:** Capable to apply the knowledge of mathematics, Algorithmic principles and computing fundamentals in the modeling and design of computer based systems of varying complexity.
PO2	**Scientific reasoning**/ **Problem analysis**: Ability to critically analyze, categorizes, formulate and solve the problems that emerges in the field of Computer science.
PO3	**Problem solving:** Able to provide software solutions for complex scientific and business related problems or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.
PO4	**Environment and sustainability:** Understand the impact of software solutions in environmental and societal context and strive for sustainable development.
PO5	**Modern tool usage:** Use contemporary techniques, skills and tools necessary for Integrated solutions.
PO6	**Ethics:** Function effectively with social, cultural and ethical responsibility as an Individual or as a team member with positive attitude.
PO7	**Cooperation / Team Work:** Function effectively as member or leader on Multidisciplinary teams to accomplish a common objective.
PO8	**Communication Skills:** An ability to communicate effectively with diverse types of audience and also able to prepare and present technical documents to Different groups.
PO9	**Self-directed and Life-long Learning:** Graduates will recognize the need for Self-motivation to engage in lifelong learning to be in par with changing technology.

COURSE OUTCOMES FOR BCA

Course Title: Computing Fundamentals and C Programming Theory

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Learn about the Computer fundamentals and the Problem solving	**K2**
2	Understand the basic concepts of C programming	**K2**
3	Describe the reason why different decision making and loop constructs are availablefor iteration in C	**K3**
4	Demonstrate the concept of User defined functions, Recursions, Scope and Life time of Variables, Structures and Unions	**K4**
5	Develop C programs using pointers Arrays and file management	**K3**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Computing Fundamentals and C Programming Lab

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Remember and Understand the logic for a given problem and to generate Prime numbers & Fibonacci Series **(Program-1,2,3)**	**K1, K2**
2	Apply the concepts to print the Magic square, Sorting the data , Strings, Recursive functions and Pointers **(Program-4,5,6,8,10)**	**K2, K3**
3	Remember the logic used in counting the vowels in a sentence **(Program-7)**	**K1**
4	Apply and Analyze the concepts of Structures and File management **(Program-9,11,12)**	**K3& K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Digital Fundamentals and Computer Architecture

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Learn the basic structure of number system methods like binary, octal and hexadecimal and understand the arithmetic and logical operations are performed by computers.	**K3**
2	Define the functions to simplify the Boolean equations using logic gates.	**K1**
3	Understand various data transfer techniques in digital computer andcontrol unit operations.	**K2**
4	Compare the functions of the memory organization	**K4**
5	Analyze architectures and computational designs concept related to architectureorganization and addressing modes	**K4**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: C++PROGRAMMING (Theory & LAB)

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Define the different programming paradigm such as procedure oriented and objectoriented programming methodology and conceptualize elements of OO methodology	**K1**
2	Illustrate an model real world objects and map it into programming objects for a Legacy system.	**K2**
3	Identify the concepts of inheritance and its types and develop applications usingOverloading features.	**K3**
4	Discover the usage of pointers with classes	**K4**
5	Explain the usage of Files, templates and understand theimportance of exception Handling	**K5**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: INTERNET BASIC LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the fundamentals of Internet and the Web concepts	**K2**
2	Explain the usage of internet concepts and analyze its components.	**K2**
3	Identify and apply the online information resources	**K3**
4	Inspect and utilize the appropriate Google Apps for education effectively	**K3, K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: DATA STRUCTURE	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of data structures and algorithms	**K1-K2**
2	Construct and analyze of stack and queue operations with illustrations	**K2-K4**
3	Enhance the knowledge of Linked List and dynamic storage management.	**K2-K3**
4	Demonstrate the concept of trees and its applications	**K2-K3**
5	Design and implement various sorting and searching algorithms for applications and understand the concept of file organizations	**K1-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: JAVA PROGRAMMING Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	The competence and the development of small to medium sized applicationPrograms that demonstrate professionally accept able coding	**K1-K2**
2	Demonstrate the concept of object oriented programming through Java	**K2-K4**
3	Apply the concept of Inheritance, Modularity, Concurrency, Exceptions handlingAnd data persistence to develop java program	**K3**
4	Develop java programs for applets and graphics programming	**K3**
5	Understand the fundamental concepts of a WT controls, layouts andevent.	**K1-K2**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: JAVA PROGRAMMING LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of Java Programming with emphasis on ethics and principles of professional coding	**K1, K2**
2	Demonstrate the creation of objects, classes and methods and the concepts of constructor, methods overloading, Arrays, branching and looping	**K2**
3	Create data files and Design a page using AWT controls and Mouse Events in Java programming Implement the concepts of code reusability and debugging.	**K2, K3**
4	Develop applications using Strings, Interfaces and Packages and applets	**K3**
5	Construct Java programs using Multithreaded Programming and Exception Handling	**K3**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Web Programming		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts of Internet, WWW, browsers and Email and protocols	K1
2	Understand and apply the HTML,HTML elements and formatting styles	K1-K3
3	Knowledge on creating tables, forms and DHTML	K3
4	Understand the structure of XML document, DTD and Schema	K1-K3
5	Knowledge on working with SML, Style sheet sand XSL	K1-K4
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: System Software and Operating Systems		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Know the program generation and program execution activities in detail	**K1**
2	Understand the concepts of Macro Expansions and Gain the knowledge of EditingProcesses	**K2-K3**
3	Remember the basic concepts of operating system	**K1**
4	Understand the concepts like interrupts, dead lock, memory management and filemanagement	**K2**
5	Analyze the need for scheduling algorithms and implement different Algorithms used for representation, scheduling, and allocation in DOS and UNIX operating System.	**K1-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: Linux and Shell Programming Theory		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Describe the architecture and features of Linux Operating System and distinguish itfrom other Operating System.	**K1**
2	Develop Linux utilities to perform File processing, Directory handling, User Management and display system configuration	**K2-K3**
3	Develop shell scripts using pipes, redirection, filters and Pipes	**K2**
4	Apply and change the ownership and file permissions using advance Unixcommands.	**K3**
5	Build Regular expression to perform pattern matching using utilities And implement shell scripts for real time applications.	**K3-K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
Course Title: Linux and Shell Programming LAB		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Develop Linux utilities to perform File processing, Directory handling and User Management	**K1, K2**
2	Understand and develop shell scripts using pipes, redirection, filters, Pipes and display system configuration	**K2-K3**
3	Develop simple shell scripts applicable to file access permission network administration	**K3**
4	Apply and change the ownership and file permissions using advance Unix commands	**K4-K5**
5	Create shell scripts for real time applications.	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		

Course Title: Lab –Web Programming	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the problems and create applications in basics of web programming.	**K2-K4, K6**
2 Understand and develop Web pages with formatting styles.	**K2-K3**
3 Apply the features in HTML to present the details given.	**K3**
4 Analyze the problem, apply the concept for developing applications.	**K4-K5**
5 Create websites of real time applications	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: RDBMS & Oracle Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the basic concepts of Relational Data Model, Entity-Relationship Model and process of Normalization	**K1-K2**
2 Understand and construct database using Structured Query Language (SQL) inOracle9ienvironment.	**K1-K3**
3 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions.	**K1-K4**
4 Understand and use built-in functions and enhance the knowledge ofhandling multiple tables	**K1-K3**
5 Attain a good practical skill of managing and retrieving of data usingData Manipulation Language(DML)	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Visual Basic Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Demonstrate fundamental skills in utilizing the tools of a visual environment such As command, menus and toolbars.	**K1**
2 Implement SDI and MDI applications using forms, dialogs and other types of GUI components.	**K2**
3 Understand the connectivity between VB with MS-ACCESS database.	**K3**
4 Implement the methods and techniques to develop projects.	**K4**
5 Attain a good practical skill of managing ODBC and Data Access Objects	**K2-K4**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create	

Course Title: Programming Lab–VB &Oracle	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1 Understand the concepts of Visual Basic.	**K1**
2 Learn the advantages of Controls in VB	**K2**
3 Design and develop the event-driven applications using Visual Basic frame work.	**K3**
4 Apply the knowledge of data base methods.	**K4**
5 Learn basics of PL/SQL and develop programs using Cursors, Exceptions, Procedures and Functions	**K6**
K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create	

Course Title: PYTHON Programming	
Course Outcomes:	
On the successful completion of the course, student will beable to:	
1	Remembering the concept of operators,datatypes,loopingstatementsinPython programming	**K1**
2	Understanding the conceptsofInput/ Output operations in file..	**K2**
3	Applying the concept of function sand exception handling	**K3**
4	Analyzing the structures of list,tuples and maintaining dictionaries	**K4**
5	Demonstrate significant experience with python program development environment	**K4-K6**

K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create

Course Title: CASE Tools Concepts and Applications	
Course Outcomes:	
On the successful completion of the course, student will beable to	
1	Understand the basic concepts of software engineering	**K1**
2	Apply the software engineering models in developing software applications	**K2-K3**
3	Implement the object oriented design in various projects	**K4**
4	Knowledge on how to do a software project within-depth analysis.	**K3**
5	To inculcate knowledge on Software engineering concepts inturn gives a road map to design a new software project.	**K1-K4**

K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create

Course Title: Graphics & Multimedia Theory	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Explain applications, principles, commonly used and techniques of computer graphics and algorithms for Line-Drawing, Circle-Generating and Ellipse-Generating.	**K2**
2	Students will get the concepts of 2D and 3D, Viewing, Curves and surfaces, Hidden Line/surface elimination techniques	**K3**
3	Studies concepts of Multimedia Systems, Text, Audio and Video tools	**K3**
4	Compressing audio and video using MPEG-1 and MPEG-2	**K4**
5	Creates Animation with special effects using algorithms	**K6**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Programming Lab – Graphics & Multimedia	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of computer graphics.	**K1**
2	Designs can conversion problems using C and C++ programming.	**K2**
3	Apply clipping and filling techniques for modifying an object.	**K3**
4	Understand the concepts of different type of geometric transformation of objectsin2D.	**K4**
5	Understand and develop the practical implementation of modeling,rendering, viewing of objects in 2D	**K6**

K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create

Course Title: Project Work Lab		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Formulate a real world problem and develop its requirements develop a designsolution for a set of requirements.	**K3**
2	Test and validate the conformance of the developed prototype against the originalrequirements of the problem.	**K5**
3	Work as a responsible member and possibly a leader of at a in developing softwaresolutions.	**K3**
4	Expresstechnicalideas,strategiesandmethodologiesinwrittenform.Self-learn new tools, algorithms and techniques that contribute to the software Solution of the project.	**K1-K4**
5	Generate alternative solutions, compare them and select the optimum one.	**K6**
K1-Remember;**K2**-Understand;**K3**-Apply;**K4**-Analyze;**K5**-Evaluate;**K6**-Create		
CourseTitle: Dot Net Programming		
CourseOutcomes:		
On the successful completion of the course,student will be able to:		
1	Understand the basics of .NET framework and the object oriented programming	**K1**
2	Understand the procedures, File I/O,Error handling and Message queues	**K2**
3	Understand and remember the components inVB.NETIDE,ADO.NETandalso the window forms.	**K2**
4	Understand the HTML server controls, Web controls, Validation controls and state management and tracing.	**K3**
5	Knowledge on SOAP, building web services and deploying and publishing web services, Finding and consuming web services.	**K2- K4**
K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create		
Course Title: Internet of Things(IoT)		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	To Understand The Fundamentals of Internet of Things.	**K1**
2	To know the basics of communication protocols and the designing principles of Web connectivity.	**K2**
3	To gain the knowledge of Internet connectivity principles	**K2-K3**
4	Designing And Develop Smart City in IoT	**K2-K3**
5	Analyzing and evaluate the data received through sensors in IOT.	**K4-K5**
K1–Remember**;K2** –Understand**;K3** –Apply**;K4**– Analyze**;K5**– **Evaluate; K6–Create**		
Course Title: Lab –CASE TOOLS LAB		
Course Outcomes:		
On the successful completion of the course,student will be able to		
	Prepare the CASE tools for the given specification.	**K1, K2**
	Understand and develop theUMLdiagram for real time applications.	**K2-K3**
	Design the real time test cases	**K3**
	Analyze the development of CASE tools	**K4-K5**
	Design the CASEtools and generateVB code	**K6**
K1–Remember;**K2**–Understand;**K3**–Apply;**K4**–Analyze;**K5**–Evaluate;**K6**–Create		

Department of Commerce

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

M.Com – PEOs, PSOs & POs

Program Educational Objectives (PEOs)	
The M.Com program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	To assume jobs of executive cadre in corporate
PEO2	To offer investment /finance/tax consultancy and business analytics
PEO3	To manage firms offering financial services
PEO4	To pursue research in commerce /Management
PEO5	To exercise professional skills and values

Program Specific Outcomes (PSOs)	
After the successful completion of M.Com program, the students are expected to	
PSO1	Undertake a research work with specializations
PSO2	Use software tools to carry out a specified financial analysis of a business application
PSO3	Apply the knowledge gained during the course of the program to solve the real time problems
PSO4	Meet the needs of industry 4.0
PSO5	Communicate effectively with professionals

Program Outcomes (POs)	
On successful completion of the M.Com program	
PO1	To ensure all round development of personality required for an executive
PO2	To build necessary skills concerning commercial theories and applications to business by using business analytics
PO3	To obtain practical knowledge in commercial activities by understanding training in commercial and industrial establishments
PO4	To develop a broad range of business skills and commercial knowledge, development of general and specific capabilities to meet the current and future expectations of business and industry
PO5	To enrich the necessary competencies and creativity to undertake entrepreneurship as a desirable and feasible career option

COURSE OUTCOMES FOR M.Com

	Course title: MANAGERIAL ECONOMICS	
	Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Understand the nature and scope of Managerial Economics, demand analysis and law of variable proportion.	K1
2	Explain the role of Managerial Economist, goal of corporate enterprises, demand determinants, types of market, national incomeand public finance.	K2
3	Apply the types of costs and revenues and Break Even point analysis for business decisions.	K3
4	Analyze the role of managerial economist in demand analysis, cost andproduction analysis.	K4
5	Evaluate the value of enterprises, pricing and output decisions, business cycles and causes and remedies of industrial sickness	K5
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create	
	Course title: CORPORATE ACCOUNTING	
	Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Comprehend the accounting provisions in the Companies Act relating to preparation of final accounts of a company.	K1
2	Explain the accounts of Amalgamation, Absorption and Alteration of share capital.	K2
3	Prepare accounts at the time of liquidation of companies.	K3
4	Make use of the accounting aspects pertaining to valuation of shares,holding company accounts and banking and insurance companies	K3
5	Examine the theoretical framework of Human resource accounting, Government accounting, Responsibility, accounting and Environmental Accounting	K4
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create	
	Course title: INFORMATION TECHNOLOGY IN BUSINESS	
	Course Outcomes:	
	On the successful completion of the course, student will be able to:	
1	Analyze the impact of hardware and software in business	K4
2	Illustrate the internet security aspects and e-business communication modes	K1 & K2
3	Explain the data processing systems.	K2
4	Examine the key features of machine language and input, output devices	K5
5	Develop an application for a e-commerce business	K6
	K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create	

Course title: MARKETING MANAGEMENT	
Course Outcomes:	
On the successful completion of the course, students will be able to:	
1	Recollect the marketing concepts, types and modern marketing concept	K1
2	Illustrate the macro and micro environments of a market and buyer behavior	K2
3	Locate the different types of products, product line, product mix and pricing decisions	K3
4	Analyze the important of channels of distribution and promotional mix	K4
5	Examine the market agricultural produce and marketing research.	K4

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: BUSINESS RESEARCH METHODS	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Explain the range of quantitative and / or qualitative research techniques to business and management problems / issues	K1 & K2
2	Organize and conduct research in a more appropriate sampling method manner.	K2
3	Make use of the necessary critical thinking skills in order to evaluate different statistical tools used in research.	K2 & K3
4	Interpret the data analysis in relation to the research process by testinghypothesis.	K4
5	Write a research report and thesis.	K5 & K6

Course title: BUSINESS ENVIRONMENT	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Explain the internal and external environment pertaining to business	K2
2	Evaluate the industry policy and regulations	K5
3	Analyze the policies and legal provisions of the government	K4
4	Explain the impact of financial environment and labor legislation in India	K1
5	Indentify the concepts of ethics in business and the relevant fields	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: APPLIED COST ACCOUNTING	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the classification of cost, methods and techniques	K1
2	Evaluate cost sheet and material and labor control	K5
3	Analyze cost control and cost reduction tools and techniques	K4
4	Solve labor, overhead and process costing methods	K2
5	Reconciliation of cost and financial accounting.	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: HUMAN RESOURCES MANAGEMENT		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Explain human resources planning, dealing with surplus and deficient man power	K1
2	Describe the meanings of terminology and tools used in managing employees effectively	K2
3	Apply a selection strategy for a specific job	K3
4	Gain knowledge in develop, analyze and apply advanced training strategies and specifications for the delivery of training programs	K4
5	Assess the different techniques involved in the performance appraisal process.	K5
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		
Course title: DIRECT TAXES		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Evaluate the procedure for computing of taxable income under various sources.	K5
2	Recollect the concept of tax administration and practices.	K1
3	Utilize the latest provision of income tax act.	K3
4	Develop the legitimate way of Tax Planning and Management.	K6
5	Make use of the procedure for assessment and e-filing.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		
Course title: MANAGEMENT ACCOUNTING		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Recollect the concept and importance of management accounting.	K1
2	Explain the role of managerial accounting in management decision making.	K2
3	Utilize the various methods and technique of managerial accounting.	K3
4	Analyze the method and technique of management accounting used for managerial decision making.	K4
5	Prepare budget and budgetary control for any business consern	K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		
Course title: FINANCIAL MANAGEMENT		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Recollect the concept and importance of financial management.	K1
2	Analyse the Various sources of long-term and short-term finance.	K2
3	Indentify the methods and techniques for calculating cost of capital.	K3
4	Examine different type leverage followed by a organization.	K4&K5
5	Evaluate the various dividend policies & Working capital.	K5
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course title: INTERNET & E-COMMERCE	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Illustrate the various trends in business.	K1&k2
2	Explore information technology in every aspect of business.	K3
3	Analyze the role of e- commerce in the present business scenario.	K3 & K4
4	Examine the cyber security and cyber regulation in global business world.	K5
5	Develop the future relevance internet business in global business world	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: INVESTMENT MANAGEMENT	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall various investment avenues and personal finance.	K1
2	Explain securities markets, regulation and its instruments	K2
3	Indentify fundamental analysis of an organization using financial data information.	K3
4	Examine technical analysis of an organization using financial data information.	K4
5	Evaluate risk return of securities in different investment proposal.	K5

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: INTERNATIONAL BUSINESS	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the concept of international business.	K1
2	Explain the level of changes international business in global era.	K2
3	Indentify the role of global financial markets and instrument.	K3
4	Evaluate various functions of WTO, IMF AND IBRD.	K5
5	Analyze various theories of foreign exchange.	K4

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title: Financial markets and Institutions	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Describe Indian Financial System and securities exchange board of India.	K1&K2
2	Classify Small Savings, Provident Funds, Unit Trust of India and Mutual Funds.	K2
3	Explore activities of non-financial banking.	K4
4	Assess about various investment information and credit rating agency	K5
5	Identify about various financial institutions and related to its working and functions	K3

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

Course title:Indian Stock Exchange	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Describe Indian stock exchanges and securities exchange board of India.	K1&K2
2	Classify and regulate the trading transactions with proper rules and regulations.	K2
3	Explore activities of the investors of stock exchange	K4
4	Determine the securities contracts regulation act and important provisions related to SEBI functions workings.	K5
5	Examine various basic concepts of internet stock trading features	K4
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course title: Futures and Options	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Recall the concepts and market mechanics of different types of financial derivatives	K1
2	Analyze how financial derivatives are valued, based on the no-arbitrage and risk-neutral valuation approaches	K4
3	Evaluate the instruments that can be used to implement risk management strategies.	K5
4	Explain various pay off for buyer of futures and other options like hedging and speculation.	K2
5	Identify the evolution of commodity markets and exchanges in India.	K3
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Course title: Fundamental Technical analysis	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Examine various concepts related to investment and approaches to security valuation.	K4
2	Outline the theoretical contexts of the fundamental and technical analysis	K2
3	Summarize work on the basic tools used by technical analysts	K5
4	Determine the various theory and technical analysis related meaning	K5
5	Evaluate securities by measuring the intrinsic value of stock	K5
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

Department of Information Technology

Programme Outcomes (POs)

Programme Specific Outcome

Course Outcomes (Cos)

M.Sc. INFORMATION TECHNOLOGY– PEOs,PSOs&POs

Program Educational Objectives(PEOs)	
The **M.Sc.IT** program describe accomplishments that graduates are expected to attain within five to seven years after graduation	
PEO1	Empower students to critically analyze current trends and learn future issues from a system perspective at multiple levels of detail and abstraction
PEO2	Acquire higher degree of technical skills in problem solving and application development
PEO3	Exhibit continuous learning and research for the societal upliftment with human values and ethics

Program Specific Outcomes (PSOs)	
After the successful completion of **M.Sc. IT** program, the students are expected to	
PSO1	Able to work out effective and efficient real time solutions using acquired knowledge in computer science domain including theory, programming, algorithms, databases and web development.
PSO2	Motivate students to pursue lifelong learning and to do research as computing experts and scientists to meet the requirement of corporate world and Industry standard to provide solutions to industry, society and business.
PSO3	Acquire professional skills in software design process and practical competence in broad range of open source programming languages to withstand technological change and provide solutions to new ideas and innovations.
PSO4	Acquire the knowledge of advanced programming skills and distributed environmental need for sustainable development.
PSO5	Able to pursue careers in IT industry/ consultancy/ research and development, teaching and allied areas related to Information Technology.

Program Outcomes (POs)	
On successful completion of the **M.Sc. IT** program	
PO1	Develop creativity and problem solving skills with the knowledge of computing and mathematics.
PO2	Ability to develop and carry out experiments, interpret and infer data.
PO3	Design algorithms and develop software to aid solutions to industry and governments.
PO4	Review the latest technology and tool handling mechanism.
PO5	Analyze the outcome to solve global environment related issues.
PO6	Apply the knowledge in lifelong learning journey to equip themselves.
PO7	Identify the perspective of business practices, risks and limitations.
PO8	Work with professional and ethical values.
PO9	Formulate the responsibilities of human rights and entrepreneurial spirit.
PO10	Understand the methods to communicate effectively and work collectively.

COURSEOUTCOMESFOR M.Sc.INFORMATION TECHNOLOGY

CourseTitle:OBJECT ORIENTED ANALYSIS AND DESIGN	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Remember the basic knowledge on design technique	K1,K2
2	Understand the object oriented system development and case models	K2,K3
3	Analyze on class diagrams used for UML.	K4,K5
4	Apply and analyze different testing techniques for various applications	K3,K4, K5
5	Analyze Design and Implement projects using OO Concepts	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:ADVANCED OPERATING SYSTEMS	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the design issues associated with operating systems	K1,K2
2	Master various process management concepts including scheduling, deadlocks and distributed file systems	K2,K3
3	Prepare Real Time Task Scheduling	K3,K4
4	Analyze Operating Systems for Handheld Systems	K5,K6
5	Analyze Operating Systems like LINUX and iOS	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:ADVANCED JAVA PROGRAMMING	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the advanced concepts of Java Programming	K1,K2
2	Understand JDBC and RMI concepts	K2,K3
3	Apply and analyze Java in Database	K3,K4
4	Handle different event in java using the delegation event model, event listener and class	K4,K5
5	Design interactive applications using Java Servlet, JSP and JDBC	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:PYTHON PROGRAMMING	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic concepts of Python Programming	K1,K2
2	Understand File operations, Classes and Objects	K2,K3
3	Acquire Object Oriented Skills in Python	K3,K4
4	Develop web applications using Python	K5
5	Develop Client Server Networking applications	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:.NET Programming	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the concepts of .NET Framework Technology	K1,K2
2	Apply error handling techniques in .NET	K3
3	Demonstrates the c# console applications	K3,K4
4	Design and develop the Web applications using c#	K5
5	Design and develop the distributed data driven applications using .NET framework	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:ADVANCED JAVA LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand to the implement concepts of Java using HTML forms, JSP & JAR	K1,K2
2	Must be capable of implementing JDBC and RMI concepts	K3,K4
3	Able to write Applets with Event handling mechanism	K4,K5
4	To Create interactive web based applications using servlets and jsp	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:PYTHON PROGRMMING LAB	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Able to write programs in Python using OOPS concepts	K1,K2
2	To understand the concepts of File operations and Modules in Python	K2,K3
3	Implementation of lists, dictionaries, sets and tuples as programs	K3,K4
4	To develop web applications using Python	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:DATA MINING AND WAREHOUSING	
Course Outcomes:	
On the successful completion of the course, student will be able to:	
1	Understand the basic data mining techniques and algorithms	K1,K2
2	Understand the Association rules, Clustering techniques and Data warehousing contents	K2,K3
3	Compare and evaluate different data mining techniques like classification, prediction, Clustering and association rule mining	K4,K5
4	Design data warehouse with dimensional modeling and apply OLAP operations	K5
5	Identify appropriate data mining algorithms to solve real world problems	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:NETWORK SECURITY AND CRYPTOGRAPHY		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the process of the cryptographic algorithms	K1,K2
2	Compare and apply different encryption and decryption techniques to solve problems related to confidentiality and authentication	K2,K3
3	Apply and analyze appropriate security techniques to solve network security problem	K4,K5
4	Explore suitable cryptographic algorithms	K5,K6
5	Analyze different digital signature algorithms to achieve authentication and design secure applications	K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

CourseTitle:.SOFTWARE PROJECT MANAGEMENT		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts of Software Project Management	K1,K2
2	Identify the different project contexts and suggest an appropriate management strategy	K2,K3
3	Demonstrate through application, knowledge of the key project management skills, such as product and work break-down structure, schedule, governance including progress reporting, risk and quality management	K4,K5
4	Analyze a comparison on Product Versus Process Quality Management	K4,K5
5	Perform case studies on cost estimation models like COCOMO	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:MULTIMEDIA AND ITS APPLICATIONS		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the basic concepts of Multimedia	K1,K2
2	Demonstrate Multimedia authoring tools	K2,K3
3	Analyze the concepts of Sound, Images, Video & Animation	K3,K4
4	Apply and Analyze the role of Multimedia in Internet and real time applications	K4,K5
5	Analyze multimedia applications using HDTV	K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:.DATA MINING USING R		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Able to write programs using R for Association rules, Clustering techniques	K1,K2
2	To implement data mining techniques like classification, prediction	K2,K3
3	Able to use different visualizations techniques using R	K4,K5
4	To understand different data mining algorithms to solve real world applications	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create		

CourseTitle:.NET PROGRAMMING LAB

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand to create web pages using ASP.NET	K1,K2
2	Capable of developing interactive web applications using ASP.NET	K2,K3
3	Able to write dynamic web applications using C#	K3,K4
4	Must be able develop data base applications using ADO.NET control	K5,K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:DIGITAL IMAGE PROCESSING

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the fundamentals of Digital Image Processing	K1,K2
2	Understand the mathematical foundations for digital image representation, image acquisition, image transformation, and image enhancement	K2,K3
3	Apply, Design and Implement and get solutions for digital image processing problems	K3,K4
4	Apply the concepts of filtering and segmentation for digital image retrieval	K4,K5
5	Explore the concepts of Multi-resolution process and recognize the objects in an efficient manner	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:BIG DATA ANALYTICS

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand about the Big Data evaluation	K1,K2
2	Understand about HDFS	K2,K3
3	Installation of R and Hadoop	K3,K4
4	Apply MapReduce concepts to process big data	K4,K5
5	Design big data applications using Hadoop components and R programming	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6** - Create

CourseTitle:CLOUD COMPUTING

Course Outcomes:

On the successful completion of the course, student will be able to:

1	Understand the basic knowledge on virtualization	K1,K2
2	Understand the concept of cloud computing services and its business value	K2,K3
3	Analyze various web based applications for collaborating everyone in cloud computing	K4,K5
4	Assess various industrial platforms for the developments	K5,K6
5	Analyze on cloud mobility and governance	K6

K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create

CourseTitle:PHP PROGRAMMING		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the concepts of open source softwares	K1,K2
2	Understand the functions and browser handling power of PHP	K2,K3
3	Apply object oriented concepts and file handling concepts of PHP	K3,K4
4	Evaluate database and set sessions, cookies and FTP	K4,K5
5	Develop web pages using PHP	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:EMBEDDED SYSTEMS		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand the concept of 8051 microcontroller	K1,K2
2	Understand the Instruction Set and Programming	K2,K3
3	Analyze the concepts of RTOS	K4,K5
4	Analyze and design various real time embedded systems using RTOS	K5,K6
5	Debug the malfunctioning system using various debugging techniques	K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:DIGITAL IMAGE PROCESSING Using MATLAB		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	To write programs in MATLAB for image processing using the techniques	K1,K2
2	To able to implement Image Enhancements & Restoration techniques	K2,K3
3	Capable of using Compression techniques in an Image	K3,K4
4	Must be able to manipulate the image and Segment it	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:PHP PROGRAMMING LAB		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand to write programs in PHP for OOPS concepts	K1,K2
2	Capable of developing interactive web applications using PHP	K2,K3
3	Able to write PHP programs for File handling	K3,K4
4	Must be able develop data base applications using PHP	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		

CourseTitle:WEB APPLICATION DEVELOPMENT AND HOSTING		
Course Outcomes:		
On the successful completion of the course, student will be able to:		
1	Understand & implement the basic HTML tags to create static web pages	K1,K2
2	Capable of using hyperlinks, frames , images, tables, ...in a web page	K2,K3
3	Able to write dynamic web applications using HTML forms	K4,K5
4	Must be able to write dynamic web applications in PHP & HTML tags using XAMPP.	K5,K6
K1 - Remember; **K2** - Understand; **K3** - Apply; **K4** - Analyze; **K5** - Evaluate; **K6**– Create		