

2.6.1 (15)

Program Outcomes and Course Outcomes for all Programs offered by the institution are stated and displayed on the website and communicated to teachers and students.

Index

SR. NO	PARTICULARS	PAGE NO
1	PROGRAM OUTCOMES OF UNDERGRADUATE	2
2	PROGRAM OUTCOMES OF POSTGRADUATE	2
3	PROGRAM SPECIFIC OUTCOME	
	A) B.COM , BBA , BCCA , BCA / B. Sc. (IT)	3
	B) , M. Sc. (CS) , M.COM	4
4	COURSE OUTCOMES : UNDER GRADUATE	
	A) BBA	
	i) PART I	5
	ii) PART II	9
	iii) PART III	10
	B) BCCA	
	i) PART I	12
	ii) PART II	16
	iii) PART III	18
	C) B.COM	
	i) PART I	20
	ii) PART II	25
	iii) PART III	28
	D) B. Sc (IT)	
	i) PART I	31
	ii) PART II	34
	iii) PART III	37
	E) BCA	
	i) PART I	40

	ii) PART II	43
	iii) PART III	46
5	COURSE OUTCOME : II POST GRADUATION	
	A) M. Sc (CS)	
	i) PART I	48
	ii) PART II	50
	B) M. COM	
	i) PART I	51

1. Program outcomes of undergraduate

- PO 1:** Ability to take realistic decisions on future options based on aptitude, talent and available opportunities.
- PO 2:** Assess situations objectively in an unbiased manner and take informed decisions.
- PO 3:** Communicate effectively and confidently in both English and a local language.
- PO 4:** Develop an inherent curiosity and desire to continuously gain knowledge and learn new skills.
- PO 5:** Develop qualities of honesty, sincerity and integrity and have the courage to speak truthfully.
- PO 6:** Realize that there is no substitute for hard work.
- PO 7:** Concern for environment and prevention of pollution.
- PO 8:** Engage in social activities and understand that unity and togetherness begets strength.
- PO 9:** Contribute to National Development, justice and brotherhood.
- PO 10:** Empathy towards lesser privileged individuals.

2. Program outcomes of postgraduate

- PO 1:** Develop a genuine desire to excel in the chosen field.
- PO 2:** Continuous desire to gain knowledge to update, improvise and improve.
- PO 3:** Awareness of situations in the country and world and its impact on jobs and careers.
- PO 4:** Contribute by imparting knowledge to others in need.
- PO 5:** Preparedness to shoulder responsibility with joy and work with singularity of purpose.

3. Program Specific outcomes of the Courses

Name of Program : B.Com

After successful completion of B. Com program, the student will be able to:

PSO 1	Students will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA and other courses.
PSO 2	There will be awareness among the students about current trends in commerce and management All over the world.
PSO 3	The projects assigned to students helps in improving their Interpersonal and Communication Skills
PSO 4	Students will learn relevant financial accounting skills, thereby applying both quantitative and qualitative knowledge to their future careers.
PSO 5	Students will be able to go for higher education and advance research in the field of marketing, commerce and finance

Name of Program : BBA

After successful completion of BBA program, the student will be able to:

PSO 1	The course gives an understanding of Ethical, Social Sustainable Business Issues
PSO 2	Management skills, soft skill are updated
PSO 3	Will be able to develop the right attitude to enter the job market based on the knowledge and skills they have acquired
PSO 4	Students are prepared for lifelong learning.

Name of Program : BCCA

After successful completion of BCCA program, the student will be able to:

PSO 1	Apply the knowledge of mathematics, accounting fundamentals, and computer specialization to the solution of complex accounting & management problems.
PSO 2 PSO 3	Design solutions for economic problems and design software, processes to meet the specifications with consideration for the public safety, and the cultural, societal, and environmental considerations.
PSO 4	Students will be able to go for higher education and advance research in the field of marketing, commerce and finance

Name of Program : BCA / B. Sc. (IT)

After successful completion of BCA / B.Sc. (IT) program, the student will be able to:

PSO 1	Enables the students to identify and sharpen their IT/ programming skills.
PSO 2	Students will be able to communicate effectively across a range of computers.

Name of Program : M. Sc. Computer Science

After successful completion of M. Sc. (CS) program, the student will be able to:

PSO 1	The Students will be able to develop aptitude to manifest a wide and extensive knowledge in the field of computer science.
PSO 2	The students will be able to develop skills in software design and Its implementation
PSO 3	Ability to think critically for solving various problems and recent trends in computer software's
PSO 4	The students will be able to apply knowledge of computer science in academic and corporate sectors

Name of Program : M.Com

After successful completion of M.Com program, the student will be able to

PSO 1	Disciplinary Knowledge: The students will attain wide and extensive theoretical knowledge and practical exposure in the field of Commerce
POS 2	Inquisitive Learner : i. Equip the students with requisite knowledge, skills and right attitude in the domain of commerce and management which is necessary to increase their ii. Employability in trade & commerce. Students can go further for professional courses like CA/ CS/ CMA /CFA
PSO 3	Critical and Analytical Thinking: The students will be able to think critically, evaluate the reliability and relevance of evidence, identify logical flaws in arguments, analyze data, draw valid conclusions and support them with evidence and examples.
PSO 4	Communication Skills: The students will develop effective communication skills enabling them to present their ideas clearly and confidently at various forums
PSO 5	Ethical and Moral Values: Attempt to ignite the sense of responsibility, honesty, conscience, commitment to human values and professional ethics into curriculum through incorporation of relevant topics.
PSO 6	Leadership and Team work: The students will be capable of working competently as a leader and a team member under diverse working conditions.
PSO 7	Research related Skills: The students will be able to identify problem statements, formulate research questions, and consult relevant sources to find appropriate solutions.
PSO 8	Self directed lifelong learning:

	The students will be able to recognize and use learning opportunities lifelong, creating an environment for continuous development and improvement of skills needed for personal and professional growth.
PSO 9	Responsible Citizenship and Community Engagement: The students will be able to grow into responsible citizens, develop tolerance and harmony towards cultural and social diversities, and support in building a collective vision for the benefit of society.
PSO 10	Stress Management : To encourage the students to refer various journals periodicals and publications and to develop the habit of reading, understanding and interpreting various articles from news papers

4. Course outcomes

4. a) Course outcomes of BBA

Program: BBA Part I (Semester I) Course Code : 1T1

Course Name: English

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

CO1	To be well versed in all the four language skills- Listening. Speaking. Reading and Writing.
CO2	To enhance their study skills
CO3	To familiarize the students with Business Communication skills and soft skills.
CO4	To develop insight and critical thinking through the prescribed prose and poems.
CO5	To inculcate 21 century skills in the students
CO6	To develop life skills in the students through ethics, morals and mould the character of the students through the diligently chosen texts.
CO7	To instil self-confidence in the students through inspiring examples of successful people.

Course Code : 1T2

Course: Evolution of Business

Course Outcome: On completion of the course, student will be able to–

CO1	The Students will be able to relate the reasons of World War and its effect on global business environment.
CO2	The Student will be able to describe Cold war and OPEC crises on International Business

CO3	The student will be able to differentiate the Indian Business structure between Pre and Post-Independence
CO4	The student will be able to analyse the contribution of various sectors in Indian Business
CO5	The student will be able to summarise Global Business and Indian Business Scenarios Unit 1-Evolution of Business & Economy: Industrial revolution (1820-1850); Rise of European

Course Code : 1T3-D

Course Name : Aptitude Development –

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

CO1	The Students will be able to practice effective communication in real life situations
CO2	The students will be able to recognise problem solving skills
CO3	The students will be able to infer logical reasoning techniques
CO4	The students will be able to explain and infer data analytical techniques
CO5	The Students will be able to prepare themselves for various competitive exams and different placement aptitude test as well.

Course Name: Financial Accounting using Tally

Course code: 1T4-B

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

CO1	Student will acquire knowledge and understanding of Basics of Financial accounting and computerised Accounting
CO2	Given the day-wise transactions of firm, the students will be able to prepare ledger and group and will be able to create various vouchers, using Tally software
CO3	Given the details about the day-wise transactions of a firm, the student will be able to create bill wise detail based on stock.
CO4	Given the details about transactions, students will be able to prepare profit & Loss A/C report and balance sheet
CO5	Given the situation and data students will be able to perform operations in Tally

Course Name : Foundation of Managerial Effectiveness

Course Code: 1T5

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

CO1	The Students will be able to relate the concept of skill development with managerial skills
CO2	The students will be able to interpret the problem solving technique with the help of Johari Window
CO3	The students will be able to analyse group behaviour and explain of SWOT Analysis

CO4	The student will be able to differentiate between different structures of organisation and classify between empowerment and delegation
CO5	The students will be able to point out the effective managerial traits and ways to improve them.

Program: BBA Part I (Semester II)

Course Name: English

Course Code :2T1

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

CO1	To be well versed in all the four language skills- Listening. Speaking. Reading and Writing.
CO2	To enhance their study skills
CO3	To familiarize the students with Business Communication skills and soft skills.
CO4	To develop insight and critical thinking through the prescribed prose and poems.
CO5	To inculcate 21 century skills in the students
CO6	To develop life skills in the students through ethics, morals and mould the character of the students through the diligently chosen texts.
CO7	To instil self-confidence in the students through inspiring examples of successful people.

Course Name : Fundamentals of Business Management

Course Code : 2T2

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

CO1	The student will be able to identify different functions of management and management thoughts.
CO2	The student will be able to differentiate between Management and Administration as well as identify the skills required for a manager.
CO3	The student will be able to Outline and illustrate plans for various activities.
CO4	The Student will be able to develop competency of decision making while working in a group.
CO5	The student will be able to apply various management principles in his/her day-to- day life

Course Name : Cost and Management Accounting

Course Code : 2T3

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

CO1	Given the data about the various cost student will be able to classify the elements of cost and also able to prepare cost sheet, tender/Quotation for various business proposals. Given the data of profit as per cost book and
-----	---

	profit as per financial book the student will
CO2	Given the data about the various cost student will be able to classify the elements of cost and also able to prepare cost sheet, tender/Quotation for various business proposals. Given the data of profit as per cost book and profit as per financial book the student will be able to prepare reconciliation statement form the same.
CO3	Given the information about Cost, Volume & Profit student will be able Compute of Break Even Point, Profit Volume Ratio, Margin of Safety etc and also able use marginal costing for decision making purpose which includes a range of decisions such as Closing down a plant, dropping a product line, make or buy decisions, selection of suitable product mix, desired level of profits etc.
CO4	Given the data about the various cost/Receipt and payments the students will be able to prepare budgets for forecasting cost structure at various production capacities and cash positions for a specific duration
CO5	The students will be able to apply the concept of costing in ascertainment of cost, computation of profit and business forecasting.

Course Name : Environmental Studies (AECC)(Course Code : 2T4)

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

CO1	The Students will be able to recognise the importance of environmental studies and various natural recourses
CO2	The students will be able to illustrate various types of pollution and its causes and their control measures
CO3	The students will be able to point out the reasons of population growth and its impact on environment.
CO4	The students will be able to identify and explain the Social issues affecting environment
CO5	The students will be able to relate the environmental issues and act on their own level to protect it.

Course Name : Hospitality and Tourism , (Course Code: 2T5 – B)

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

CO1	The students will be able to identify different departments in hospitality industry and their functions
------------	---

CO2	The student will be able to formulate various travel plans
CO3	The student will be able to analyse role of tourism development corporations
CO4	The students will be able to plan his/her career as a tour operator or travel agent
CO5	The students will be able to classify different types of hotels and hotel rooms

Program: BBA Part II (Semester III)

CourseName: Principles of Financial Management , (Course Code : 3T1)

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

- CO1: Understand the concept of business finance.
 CO2: Describe short term and long term sources of finance.
 CO3: Estimate cost of different sources of finance.
 CO4: Determine working capital requirement and its management.

Paper: 3T2

CourseName : Basic Statistical Techniques

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

- CO1: Describe functions, importance, scope and role of statistics in business.
 CO2: Explain importance and requisites of a good statistical average and types of averages.
 CO3: Explain the significance of dispersion and methods of measuring dispersion.
 CO4: Describe significance of correlation, types of correlation, merits, calculation of coefficient of correlation and probable error.

Paper: 3T3

Course: Evolution of Business & Commercial Geography

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

- CO1: Explain industrial revolution and rise of European business, impact of First World War on international business and concept of the great depression.
 CO2: Evolution of business in post WWII scenario, dawn of IT era, OPEC crises, concept of cold war and gulf war and its effects on international business.
 CO3: Explain the importance of geography and relationship between commerce and commercial geography.
 CO4: Understand the role of industries, growth and development of iron and steel industries, cotton and textile industries in India and USA economy. Explain the growth and development of the engineering industries in India and the world, major industrial units in India and the world.

Paper: 3T4

Course: Environment Management

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

- CO1: Understand the concept of environment management and natural resources.

CO2: Perceive knowledge on different types of pollution.

CO3: Describe population explosion and its control.

CO4: Determine social issues in environment.

Program: BBA Part II (Semester IV)

Paper: 4T1

Course: Principles of Human Resource Management

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

CO1: Understand the concept of human resource management.

CO2: Know the process of job analysis and job design.

CO3: Determine the process of human resource planning.

CO4: Identify training need and training methods.

Paper: 4T2

Course: Money, Banking & Finance

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

CO1: Understand the concept of money.

CO2: Differentiate between commercial bank and central bank.

CO3: Get idea about estimation of national income.

CO4: Students can differentiate between monetary policy and fiscal policy.

Paper: 4T3

Course: Introduction to Sociology and Psychology

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

CO1: Sociology as the science of society.

CO2: Social structure and social change.

CO3: Introduction to Psychology.

CO4: Social Psychology.

Paper: 4T4

Course: Business Legislation

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

CO1: Understand administration of laws & legal system in India.

CO2: Understand Indian Contract Act, 1872.

CO3: Understand the Companies Act, 1956.

CO4: Describe the Consumer Protection Act, 1986.

Program: BBA Part III (Semester V)

Paper: 5T1

Course: Entrepreneurship Development

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

CO1: Describe entrepreneur & entrepreneurship.

CO2: Describe entrepreneurial growth.

CO3: Describe small enterprises.

CO4: Describe institutional & financial support to entrepreneurs.

Paper: 5T2

Course: Principles of Operations Management

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

- CO1: Differentiate between production, manufacturing and services.
- CO2: Make decision about plant location and plant layout.
- CO3: Know how to make material management.
- CO4: Determine quality management system.

Paper: 5T3

Course: International Business Environment

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

- CO1: Describe international business and international collaborative arrangements and strategic alliances.
- CO2: Describe international business environment.
- CO3: Describe global trading and investment environment.
- CO4: Describe international economic institutions and agreements.

Paper: 5T4

Course: Research Methodology

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

- CO1: Design research methodology suitable for any organization to achieve its goals.
- CO2: Knowledge of sampling design and formulation of hypothesis.
- CO3: Understand the measurement and scaling techniques.
- CO4: Identify methods of data collection and explain various techniques of data interpretation. Design project layout and prepare research report.

Program: BBA Part III (Semester VI)

Elective A – Financial Management

Paper: 6T1

Course: Fundamentals of Business Finance

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

- CO1: Describe time value of money.
- CO2: Make decisions on capital budgeting.
- CO3: Make dividend decisions.
- CO4: Understand reasons for corporate restructuring.

Paper: 6T2

Course: Advanced Financial Management

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

- CO1: Understand banking services and operations.
- CO2: Describe various insurance services.
- CO3: Explain concepts of mutual funds.
- CO4: Describe structure of capital market.

Elective B – Human Resource Management

Paper: 6T1

Course: Fundamentals of Human Resource Management

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

CO1: Describe evolution of HRM and role of HRM in strategic management.

CO2: Describe performance appraisal with traditional & modern methods.

CO3: Describe job evaluation and compensation management.

CO4: Describe Provident Fund Act, Employee State Insurance Corporation Act, Minimum Wages Act, Industrial Relations Act and Industrial Dispute Act.

Paper: 6T2

Course: Advanced Human Resource Management

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

CO1: Describe job analysis, job design and job evaluation.

CO2: Understand performance appraisal.

CO3: Describe industrial relations.

CO4: Explain goal setting, promotions, transfers, separations and recruitment process.

Elective C – Marketing Management

Paper: 6T1

Course: Fundamentals of Marketing Management

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

CO1: Describe concept of integrated communication mix.

CO2: Understand the importance of branding, advertising and digital marketing.

CO3: Know the purpose of sales organisation.

CO4: Describe the concept of service marketing.

Paper: 6T2

Course: Advanced Marketing Management

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

CO1: Understand salesmanship.

CO2: Know distribution network management.

CO3: Describe service quality information system.

CO4: Understand customer retention and relationship marketing.

Paper: 6P1

Course: Project work

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

CO1: Student develop his/her ability to apply multi-disciplinary concepts, tools and techniques to solve organizational problems and/or to evolve new/innovative theoretical frame work in marketing Management / Finance management / Human resource management.

5. (b) Course outcomes of BCCA

Program: BCCA Part I (Semester I)

Course Name : English

Course Code: 1T1

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

CO1	To be well versed in all the four language skills- Listening, Speaking, Reading and Writing.
CO2	To enhance their study skills
CO3	To familiarize the students with Business Communication skills and soft skills.
CO4	To develop insight and critical thinking through the prescribed prose and poems.
CO5	To inculcate 21 century skills in the students
CO6	To develop life skills in the students through ethics, morals and mould the character of the students through the diligently chosen texts.
CO7	To instil self-confidence in the students through inspiring examples of successful people.

Course Name : MS Office

Course Code : 1T2

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

CO1	Student will be able to create and manage word documents with required formatting Students will be able to compose word documents and operate relevant features and tools of MS Words
CO2	Student will be able to perform operations like creating, storing, and formatting data using different Excel formatting tools and features.
CO3	Students will able to perform calculations using functions, and present the data visually using charts and graphs.
CO4	Student will be able to create and design professional presentation using different features & tools of PowerPoint
CO5	Students will be able to prepare and appraise professional business data, document and presentation

Course Name : Fundamental of Computers

Course Code : 1T3

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

CO1	Student will be able to understand and use information of various components of Computer
CO2	Student will be able to use the knowledge of peripheral devices for effective working.

	Student will be able to perform calculations based on various number systems
CO3	The student will be able to analyse and differentiate various modes of data transmission and will also be able to decide the choice of communication channel for given situation
CO4	Student will be able to apply the knowledge of system software and application software in effective manner
CO5	Student will be able to understand and use information of various functions & features of operating system .

Course Name : Professional Ethics and Human Values

Course Code : 1T4

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

CO1	Students will be able to outline the importance of Values in life & explain the concept of Co-existence of the Self and the Body
CO2	Students will be able to discuss the basics of values in human human interaction
CO3	Students will be able to critically evaluate the different theories of Ethics
CO4	Students will be able to highlight the role of Code of Conduct in ethical behaviour in Professional life
CO5	Students will be able to analyse the issues in Professional ethics.

Program: BCCA Part I (Semester II)

Course Name : English

Course Code : 2T1

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

CO1	To be well versed in all the four language skills- Listening, Speaking, Reading and Writing.
CO2	To enhance their study skills
CO3	To familiarize the students with Business Communication skills and soft skills.
CO4	To develop insight and critical thinking through the prescribed prose and poems.
CO5	To inculcate 21 century skills in the students
CO6	To develop life skills in the students through ethics, morals and mould the character of the students through the diligently chosen texts.

CO7	To instil self-confidence in the students through inspiring examples of successful people.
------------	--

Course Name : Principles of Business Management

Course Code : 2T2

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

CO1	The student will be able to identify different functions of management and management thoughts.
CO2	The student will be able to differentiate between Management and Administration as well as identify the skills required for a manager.
CO3	The student will be able to Outline and illustrate plans for various activities
CO4	The Student will be able to develop competency of decision making while working in a group.
CO5	The student will be able to apply various management principles in his/her day to day life

Course Name :Database Management Systems

Course Code : 2T3

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

CO1	Student will be able to understand and compare database management system with conventional file system and suggest suitable database system for a given situation.
CO2	Student will be able to design database by analysing different database models for real life situations.
CO3	Student will be able to reduce redundancy and inconsistency for the given table using normalization.
CO4	Student will be able to apply various SQL commands and operators to manage database operations.
CO5	Students will be able to evaluate different data constraints for maintaining integrity of the database.

Course :E-Commerce and Web Designing

Course Code : 2T4

Course outcomes

CO1	Student will be able to illustrate understanding of E-commerce & EDI concepts
CO2	Student will be able to select right E-Commerce Business Model in the given

	business environment.
CO3	Student will be able to deploy Online Business Transactions and E-Payment System in E-Commerce
CO4	Student will be able to create the web pages using HTML
CO5	Student will be able to plan online business models using-commerce concepts.

Program: BCCA Part II (Semester III)

Paper: 3T1

Course: Environmental Studies

Course outcomes:

CO1: Describe Multidisciplinary Nature of Environmental Studies and Natural Resources.

CO2: Describe Ecosystem and Biodiversity and its Conservation.

CO3: Describe Environmental Pollution and Its Effects.

CO4: Describe Social Issues, population and the Environment.

Course: Business Economics

Course outcomes:

CO1: Describe basic Problems in Economics and Price Mechanism Laws of Demand and Supply and Market Equilibrium.

CO2: Describe Production, Cost Analysis and Pricing Decisions.

CO3: Explain Factors of Demand and Supply, Theory of Wage Determination, Rent, Quasi Rent And Economic Rent, Theory of Interest, Theory of Profit.

Paper: 3T3

Course: Visual Basic Programming

Course outcomes:

CO1: Understand Visual Basic.

CO2: Understand Working with Visual Basic

CO3: Create Mode Applications.

CO4: Understand Debugging Techniques.

Paper: 3T4

Course: Database Management System

Course outcomes:

CO1: Understand database and basic database concepts.

CO2: Describe data model, database design and implementation design.

CO3: Understand basics of structured query language.

CO4: Understand advanced structured query language.

Paper: 3P1

Course: Practical

Course outcomes:

CO1: Understand practical implementation of all concepts of every unit of 'Visual basic programming' and 'Database management system' by attempting problems.

Program: BCCA Part II (Semester IV)

Paper: 4T1

Course: Mathematics

Course outcomes:

CO1: Describe Primary Data and Secondary Data, Fundamental Rules of Counting And Result on Permutation.

CO2: Explain Laws of Logarithm and Useful Mathematics devise such as Rounding Of Numbers Some Short Processes of Calculation, Roots and Reciprocals Expressed as Power, A.P Series and G.P.

CO3: Describe Objects of Diagrammatic Representation, Types of Charts and Diagrams and Useful Terms Associated with Grouped Frequency Distributions, Construction of frequency Distribution

CO4: Describe Relation between central and Non-Central moments, Beta coefficients and Gamma-coefficients.

Paper: 4T2

Course: Business Law

Course outcomes:

CO1: Describe Indian Contract Act 1872.

CO2: Describe The sales of Goods Act, 1930 & The information Technology Act, 2000.

CO3: Describe the Indian Partnership Act 1932 & The limited Liability Partnership Act, 2008(LLP).

CO4: Describe the Negotiable Instrument Act 1881(Part I & Part II).

Paper: 4T3

Course: Core Java

Course outcomes:

CO1: Describe the features of Java programming.

CO2: Explain the concept of java API and exceptional handling.

CO3: Describe Applet and Layout Manager.

CO4: Differentiate Data Input Stream and Data Output Stream.

Paper: 4T4

Course: PHP & MYSQL

Course outcomes:

CO1: Understand basic HTML, PHP and their relation.

CO2: Describe string, control structure and array.

CO3: Describes creating of web application, cookies and sessions and functions.

CO4: Understand files and directories, introduction to database and putting all together.

Paper: 4P1

Course: Practical

Course outcomes:

CO1: Understand practical implementation of all concepts of every unit of 'Core Java' and 'PHP & MySQL' by attempting problems.

Program: BCCA Part III (Semester V)

Paper: 5T1

Course: Computerized Accounting using Tally

Course outcomes:

CO1: Discuss about company in Tally, installation procedure of Tally, components of Tally and also explain Stock Group, multiple Stock Categories, multiple godowns with screen.

CO2: Explain primary group, Multiple Groups, Multiple Ledger, steps to create voucher types, a purchase orders, sales.

CO3: Discuss Service Tax, TDS, TCS, create VAT reports and also explain tax Deduction procedure in Tally.

CO4: Understand back-up, restore, migrate data and explain security levels and Security Controls in Tally.

Paper: 5T2

Course: VB.NET

Course outcomes:

CO1: Explain Common Language Runtime, Visual Basic .NET IDE and various control flow statements.

CO2: Describe structure with syntax and example, Array, Lookup Tables, Hash table, Dialog Box Control.

CO3: Explain menu, errors, debugging, concept of inheritance, .net framework.

CO4: Explain the concept of database, SQL statement, data access components, ADO.Net, properties and methods of DataSet Class.

Paper: 5T3

Course: System Analysis and Design

Course outcomes:

CO1: Describe System Concept and the Information Systems Environment, System Development Life Cycle and Role of System Analyst.

CO2: Describe System Analysis, System Design- Forms Design, File Organization and Data Base Design.

CO3: Describe System Implementation.

Paper: 5T4

Course: Cost and Management Accounting

Course outcomes:

CO1: Understand cost and management accounting, framework, taxonomy.

CO2: Understand the concept of strategic management accounting, its value chain, life cycle costing, target costing and Kaizen Costing.

CO3: Understand costing system and job order costing.

CO4: Understand costing of various types of process accounts under the manufacturing,

construction and oil companies, activity based costing, customer profitability analysis.

Paper: 5P1

CourseName : Practical

Course outcomes:

CO1: Understand practical implementation of all concepts of every unit of 'Tally' and 'VB.Net' by attempting problems.

Program: BCCA Part III (Semester VI)

Paper: 6T1

CourseName :C#.Net

Course outcomes:

CO1: Describe .NET Framework and structure of C# programming.

CO2: Explain Decision making, Loop statements and Methods and Array.

CO3: Describe Structures, Classes, Enum, Constructor, Abstract Classes, Inheritance and Polymorphism.

CO4: Discuss Interface, Operator Overloading and Exceptional Handling concepts with Syntaxes and Programs.

Paper: 6T2

CourseName : Python

Course outcomes:

CO1: Understand basic of python, operations and statement making in python.

CO2: Describe functions and understand importing modules.

CO3: Understand managing string and describe programming objects.

CO4: Understand processing request, building interfaces and developing applications.

Paper: 6T3

CourseName : Entrepreneurship Development

Course outcomes:

CO1: Describe meaning of entrepreneurship types.

CO2: Describe Agri-Preneurship, Factors affecting Entrepreneurship growth.

CO3: Explain Entrepreneurship Development Programmes (EDPs).

CO4: Describe Project Appraisal and Forms of business Ownership.

Paper: 6P1

Course: Practical

Course outcomes:

CO1: Understand practical implementation of all concepts of every unit of 'C#.Net' and 'Python' by attempting problems.

Paper: 6P2

Course: Project work

Course outcomes:

CO1: Students are expected to work out a project in some industry / research and development laboratories / educational institutions / software export companies. The Applications Areas of project – Financial / Marketing / Database Management System / Relational Database Management System / E-Commerce / Internet / Manufacturing / web Designing / Scientific / ERP etc.

5. (c) Course Outcomes of B. Com.

Program : B. Com. Part I (Semester I) (Course Code : 1T1)

Course Name : Fundamental Of Accounting

Course Outcome

CO1	Given the information about the business transactions/ each student will be able to identify the nature of transaction/events and will be able to record the financial transaction in the books of accounts i.e. Journal, Ledger, personal, Real, Nominal Account and Subsidiary Books etc. by applying double entry book system of accounting.
CO2	Given the Trial Balance of a Sole Trading concern along with the accompanied adjustments the students will be able to prepare the financial statement of a Sole Trader at the end of a financial year.
CO3	Given the detail business transactions between the Head office and Branches, students will be able to prepare Branch Account, cash and Credit sales, debtors & stock and debtor method of accounting.
CO4	Given the Trial Balance along with the adjustment of a Co-operative society a student would be able to prepare Trading Account, Profit & Loss Account, Profit & Appropriation Accounts and Balance Sheet of Co-operative Society As per State Co-operative Societies Act, 1960.
CO5	Given the information of business Receipts and Payments, student will be able to a simple cash book.

Course Name : Business economics -1

Course Code : 1T2

Course Outcome

CO1	Students will be able to classify fundamental problems of an economy
CO2	Students will be able to use demand analysis & Indifference curves analysis in given situation
CO3	Students will be able to apply various demand forecasting techniques
CO4	Students will be able to identify key elements in supply and isoquant curves
CO5	Students will be able to measure and comment on elasticity of demand for given data

Course Name : Commercial Firms

Course Code : 1T3

Course Outcome

CO1	Students will be able to relate the concepts of commercial firms.
CO2	Students will be able to interpret the concept of sole trader into practice
CO3	Students will be able to analyse partnership firm and will gain knowledge about starting a partnership firm.
CO4	Students will be able to gain knowledge about comp and its various concepts and will be able to gain knowledge about starting a company.
CO5	Students will relate to the concept of start ups and will be aware about starting a start up and will be able to prepare project report

Course Name : मराठी

Course Code : 1T4

अभ्यासक्रमाचा उद्देश आणि परिणाम :

CO1	. मराठी भाषेच्या समृद्धीची जाणीव करून देणे.
CO2	विद्यार्थ्यांमध्ये भाषाकौशल्याचा विकासकरणे आणि त्यातून रोजगाराच्या संधींचा शोध घेणे.
CO3	भाषेचा जीवन व्यवहारात योग्यपद्धतीने वापरण्याचा प्रयत्न करणे.
CO4	संत साहित्याच्या शिकवणुकी मुळे मानवता आणि मानवी व्यवहाराची सांगड घालणे, नैतिक मूल्ये जिवणे.
CO5	विद्यार्थ्यांना रोजगाराभिमुख बनविणे.

Course Name : Hindi

पाठ्यक्रम फलश्रुति

CO1	पौराणिक अथवा ऐतिहासिक घटनाओं को तार्किक आधारपर स्वीकार करेंगे।
CO2	अपने परिवेश के उचित और अनुचित व्यवहारों के प्रति आकलन शक्ति बढ़ेगी। • एकांकी, कहानी, निबंध आदि विधाओं के मध्यका अंतर बताने में सक्षम होंगे।
CO3	कविता का सास्वादन करने में समर्थ होंगे
CO4	'अनुवाद' के स्वरूप एवं प्रक्रिया से अवगत होंगे।
CO5	'मार्गिक नक्शे' का दैनिक जीवन में उपयोग करने में सक्षम होंगे।

Course Name : Business Skills

Course Code : 1T6

Course Outcome

CO1	The student will be able to classify different forms of business and business activities
CO2	The student will be able to differentiate between management and administration and also will be able to formulate a plan for a given activity
CO3	The student will be able to distinguish types of organisations and will also able to decide actions for a given situation
CO4	The student will be able to select leadership skills in a group and demonstrate direction skills to achieve objectives
CO5	The student will be able to demonstrate the roles, skills and functions of management required for a business activity

Course Name : Compulsory English

Course Code : 1T5

Course Outcome

CO1	To be well versed in all the four language skills- Listening, Speaking, Reading and Writing.
CO2	To enhance their study skills
CO3	To familiarize the students with Business Communication skills and soft skills.
CO4	To develop insight and critical thinking through the prescribed prose and poems.
CO5	To inculcate 21 century skills in the students
CO6	To develop life skills in the students through ethics, morals and mould the character of the students through the diligently chosen texts.
CO7	To instil self-confidence in the students through inspiring examples of successful people.

Program : B. Com. Part I (Semester II)

Course Name : Statistics and Business Mathematics

Course Code : 2T1

Course Outcome

CO1	Given the information about a particular variables, Student will be demonstrate an understanding of statistics by creating frequency distribution as per the Statistical Series.
CO2	From the given data set student will be able to compute Mean, Median, Mode and

	other measure of central tendency as required.
CO3	From the given data, Students will be able to know dispersion and to calculate Standard Deviation, Quartiles, Quartile Deviation & Co-efficient of Variation.
CO4	From the given data set the student will be able to compute the Skewness & it's coefficient by using Karl Pearson's and Bowley's method.
CO5	From the given information student will able to calculate Percentage, Simple Interest, Compound Interest and also able to calculate Profit or Loss arising out a business transactions.

Course Name :Business economics-II

Course Code : 2T2

Course Outcome

CO1	Students will be able to establish relationship between cost and Output in short/long run
CO2	Students will be able to differentiate between various Market structures
CO3	Students will be able to determine prices under different market structures
CO4	Students will be able to explain basic concepts of macroeconomics
CO5	Students will be measure national income using given data

Course Name :Business economics-II

Course Code : 2T5

Course Outcome

CO1	The Students will be able to understand the concept of commercial services and their practical importance
CO2	The students will be able to evaluate the current and emerging trends in Aviation and Hospitality services.
CO3	The students will be able to interpret the trends, role and importance of Information Technology Enabled Services (ITES).
CO4	The student will be able to analyse the effect of the new innovative services on the banking and insurance sector.
CO5	The students will be able to apply the concepts, functions and techniques of the Marketing Mix of Services.

Course Name :मराठी

अभ्यासक्रमाचा उद्देश आणि परिणाम :

CO1	. मराठी भाषे च्या समृद्धी चीजाणी व करून देणे.
CO2	विद्यार्थ्यांमध्ये भाषा कौशल्याचा विकास करणे आणि त्यातून रोजगाराच्या संधींचा शोध घेणे.
CO3	भाषे चा जीवन व्यवहारात योग्य पद्धती नेवापर करण्याचा प्रयत्न करणे.
CO4	संत साहित्याच्या शिकवणु की मुळेमानवता आणि मानवी व्यवहाराची सांगडघालणे, नैतिक मूल्ये रुजविणे.
CO5	विद्यार्थ्यांना रोजगाराभिमुख बनविणे.

Course Name : Hindi

पाठ्यक्रम फलश्रुति

CO1	पौराणिक अथवा ऐतिहासिक घटनाओं को तार्किक आधारपर स्वीकार करेंगे।
CO2	अपने परिवेश के उचित और अनुचित व्यवहारों के प्रति आकलन शक्ति बढ़ेगी। • एकांकी, कहानी, निबंध आदि विधाओं के मध्यका अंतर बताने में सक्षम होंगे।
CO3	कविता का सास्वादन करने में समर्थ होंगे
CO4	'अनुवाद' के स्वरूप एवं प्रक्रिया से अवगत होंगे।
CO5	'मार्गिक नक्शे' का दैनिक जीवन में उपयोग करने में सक्षम होंगे।

Course Name : Financial Markets operation

Course Code : 2T6 A

Course Outcome

CO1	The student will be able to explain the importance of financial Institutions
CO2	The student will be able to interpret the structure of Financial Regulations in India
CO3	The student will be able to explain the importance of Financial Markets.
CO4	The student will be able to distinguish between primary and secondary capital markets
CO5	The student will be able to Identify the Components of money markets

Program: B. Com. Part II (Semester III)

Paper: 3T1**Course : Financial Accounting – II****Course outcomes:**

- CO1: Difference between a consignment and a sale and Accounting Procedure of Consignment.
- CO2: Explain Maintenance of Accounting Records, Transactions relating to Branch and Accounting Procedure of Branch
- CO3: Describe Flotation of Joint Stock Companies and their Capital Structure and Methods of issue of shares
- CO4: Describe Final Accounts of Joint Stock Companies and Statutory provisions Regarding preparation of companies final accounts

Paper: 3T2**Course: Business Communication & Management****Course outcomes:**

- CO1: Describe Communication, Objectives of Communication and its type.
- CO2: Describe Business communication and customer care communication in business.
- CO3: Describe Technology and business communication and Social media as a mean of communication.
- CO4: Describe MS-office aided communication.

Paper: 3T3**Course: Business Law****Course outcomes:**

- CO1: Describe Business law.
- CO2: Describe Law relating to Sale of Goods.
- CO3: Describe Law relating to Negotiable Instruments.
- CO4: Law relating to Consumer protection in India.

Paper: 3T4**Course: Monetary Economics - I****Course outcomes:**

- CO1: Explain the concept of Money, it's functions, Quantity Theory, Paper Currency. Functions of Money, Inflation and Deflation, Money Market, Monetary and Fiscal Policies and its working.
- CO2: Understand the Concept of Public Finance and its Importance, theory of Maximum Social Advantage.
- CO3: Understand the concept of Taxation., Canons of Taxation, Taxation Process, Directs Tax, Indirect Tax

Paper: 3T5**Course: Compulsory English****Course outcomes:**

- CO1: Explain the struggle of life which inspires us in prose.
- CO2: Describe the theme of the poems prescribed in this unit?
- CO3: Understand the “Transformation of Sentences”.
- CO4: Explain the term “Business Correspondence

Paper: 3T6

Course: Second Language – Marathi**Course outcomes:**

CO1	पर्यावरण, आधुनिक ज्ञानविज्ञान आणि प्रसारमाध्यमे या विषयावर आधारित निबंध सविस्तरपणे लिहणे.
CO2	गद्य विभागातील लेखक परिचय, पाठांचा आशय पटवून देणे.
CO3	:पद्यविभागातील कवी, कवयित्री परिचयत सेचक वितेचा आशय, रसग्रहण विद्यार्थ्यांना समजवून देणे.
CO4	व्यावहारिक मराठीतील प्रसारमाध्यमांसाठी वृत्तलेखन आणि कल्पना विस्तारअवगत करणे

Course: Second Language – Hindi**Course outcomes:**

CO1	शैक्षणिक राष्ट्रनिर्माण मे विद्यार्थियों का महत्व, नारी शिक्षाका महत्व एवं पर्यावरण एवं प्रदूषण विषयों पर आधारित निबंध विस्तार से लिखना I
CO2	निर्धारित पाठ पर आधारित पाठों का सारांश लिखना एवं लेखक परिचय देना I
CO3	पाठ्यक्रम पर आधारित सभी कविताओं का भावार्थ लिखना एवं कवि परिचय देनाI
CO4	जीवनवृत्त की परिभाषा बताते हुए उनका प्रारूप, विशेषताएं एवं प्रकार बताइए तथा साक्षात्कार का उद्देश्य एवं सिधांत पर प्रकाश डालना I

Program: B. Com. Part II (Semester IV)**Paper: 4T1****Course: Financial Accounting - III****Course outcomes:**

CO1: To deal with the financial statements of Banking Companies as per the Banking Regulation Act, 1949, preparation of Form 'A' Balance Sheet and Form 'B' Profit & Loss A/c including various schedules.

CO2: To understand the preparation of final accounts of Insurance Companies according to Insurance Companies Regulation Act, 1938.

CO3: To determine value of goodwill by applying various methods of goodwill.

CO4: To discuss the liquidator's final statement of accounts containing various modes of collections and payments of money.

Paper: 4T2**Course: Skill Development****Course outcomes:**

CO1: Basic of Personality, human skills and behavior, motivation and morality, skill development and employment.

CO2: Communication Skill and Personality Development.

CO3: Techniques in personality development.

CO4: Entrepreneurial skill development.

Paper: 4T3**Course: Income Tax****Course outcomes:**

CO1: Describe basic concepts of Income Tax.

CO2: Understand tax saving on salary income.

CO3: Calculate income from house property.

CO4: Explain Income Tax Slab Rates.

Paper: 4T4**Course: Monetary Economics – II****Course outcomes:**

CO1: Understand Banking system and its working.

Paper: 4T5**Course: Compulsory English****Course outcomes:**

CO1: Explain the struggle of life which inspires us in prose.

CO2: Describe the theme of the poems prescribed in this unit?

CO3: Understand the “Transformation of Sentences” and “Change the Voice”.

CO4: Explain the term “Business Correspondence”

Paper: 4T6**Course: Second Language – Marathi****Course outcomes:**

CO1	पर्यावरण, आधुनिक ज्ञानविज्ञान आणि प्रसारमाध्यमे या विषयावर आधारित निबंध सविस्तरपणे लिहणे.
CO2	गद्य विभागातील लेखक परिचय, पाठांचा आशय पटवून देणे.
CO3	:पद्यविभागातील कवी, कवयित्री परिचयत सेचक वितेचा आशय, रसग्रहण विद्यार्थ्यांना समजवून देणे.
CO4	व्यावहारिक मराठीतील प्रसारमाध्यमांसाठी वृत्तलेखन आणि कल्पना विस्तारअवगत करणे

Paper: 4T6**Course: Second Language – Hindi****Course outcomes:**

CO1	साहित्यिक विषयों, भारतीय त्यौहारों तथा स्वस्थ्य विषयोंपर आधारित निबंध विस्तार से लिखना I
CO2	निर्धारित गद्य पर आधारित निबंध विस्तार से लिखना I
CO3	पाठ्यक्रम पर आधारित सभी कविताओं का भवार्थ लिखना एवं कवि परिचय देना I
CO4	प्रतिवेदन का अर्थ, परिभाषा एवं विशेषताए लिखना तथा समाचार लेखन की प्रक्रिया को स्पष्ट करना एवं एक अच्छे समवाददाता की योग्यता बताइए I

Program: B. Com. Part III (Semester V)

Paper: 5T1

Course: Financial Accounting - IV

Course outcomes:

- CO1: Explain the concept of amalgamation and absorption of companies and its accounting procedure.
- CO2: Understand accounting procedure of internal and external reconstruction of company.
- CO3: Prepare the financial statements with respect to electricity, gas and water supply company including Revenue A/c, Capital A/c and General Balance Sheet.
- CO4: Determine the value of shares by adopting net assets method, yield value method and fair value method.

Paper: 5T2

Course: Management Accounting

Course outcomes:

- CO1: Explain Cost Accounting and Financial Accounting, Simple Problems.
- CO2: Explain Need for reconciliation of profit, cost accounts and financial accounts.
- CO3: Describe Methods of Process Costing and job costing.
- CO4: Explain contract costing.

Paper: 5T3

Course: Management Process

Course outcomes:

- CO1: Understand Management and Administration.
- CO2: Describe Managerial Development and Group Dynamics.
- CO3: Understand Managerial Style.
- CO4: Understand Motivation.

Paper: 5T4

Course: Indian Economics - I

Course outcomes:

- CO1: Describe Indian Economy & Planning.
- CO2: Describe Indian Economy & Policy.
- CO3: Describe Population & Unemployment.
- CO4: Describe India's Public Finance.

Paper: 5T5

Course: Computerized Accounting

Course outcomes:

- CO1: Discuss advantages of Computerised accounting over Traditional accounting, Accounts organisation, Financial statements, Inventory management system.
- CO2: Discuss customisation of Accounting Software.
- CO3: Discuss Numeric Symbols, procedure to create single group and multiple groups, advance and normal information, Ledgers, Cost Centres, Budget in Tally.
- CO4: Explain types of Vouchers, cheque printing, interest calculations, Multi currencies, creation of Stock group, Stock categories and stock items, creation of measuring units and Godown.
- CO5: Discuss Accounting and Inventory Reports. Income and expenditure statements, Purchase order and sales order, MIS Report, Reconciliation, security controls, security levels, Tally Auditing.

Paper: 5T6

Course: Business Finance - I

Course outcomes:

CO1: Describe Objects and Scope of Business Finance.

CO2: Explain Steps involved in Project Financing.

CO3: Understand Working Capital.

CO4: Explain Debtors and Creditors Management, Venture Capital Industry.

Program: B. Com. Part III (Semester VI)**Paper: 5T1****Course: Financial Accounting - V****Course outcomes:**

CO1: Understand the consolidation of accounts between holding and subsidiary company.

CO2: Calculate amount of claim to be lodged with Insurance Companies for the loss of stock.

CO3: Calculate profit or loss related to investments in securities, amount of cum and ex interest.

CO4: Understand the concept of profit for prior incorporation period and after incorporation period.

Paper: 6T2**Course: Cost Accounting****Course outcomes:**

CO1: Understand Cost Accounting and Management Accounting.

CO2: Describe Objectives, Advantages of Business Budget & Budgetary Control.

CO3: Explain Importance, Classification and Computation of Ratio Analysis.

CO4: Describe Source, Uses of fund, fund flow statement & Balance Sheet

Paper: 6T3**Course: Advanced Statistics****Course outcomes:**

CO1: Described correlation.

CO2: Explain Regressions.

CO3: Explain Index Number.

CO4: Describe Measurement of Trend Line.

Paper: 6T4**Course: Indian Economics - II****Course outcomes:**

CO1: Describe Indian Agriculture.

CO2: Describe Indian Industry.

CO3: Understand Indian Service Sector and International Trade.

CO4: Describe Contribution of Indian Economic Thinkers.

Paper: 6T5**Course: Human Resources Management****Course outcomes:**

CO1: Describe Human Resource Management Objectives, Functions, Scope, Importance.

CO2: Describe Recruitment selection and training.

CO3: Describe Labour welfare and Collective bargaining.

CO4: Describe Human resource planning and accounting.

Paper: 6T6**Course: Business Finance – II**

Course outcomes:

- CO1: Understand the concept of financial market, money market, capital market, SEBI, their objectives, functions and reforms.
- CO2: Understand the applicability of capital budgeting in order to determine net present value, pay back period, accounting rate of return, discounted pay back period.
- CO3: Explain of dividend policies by adopting Walter's Approach, Gordon's Model and MM Approach.
- CO4: Prepare cash flow statements as per AS – 3 by applying direct and indirect method

5. (d) Course Outcomes of B. Sc. (IT)**Program: B. Sc. (IT) Part I (Semester I)****Course: English****Course outcomes:**

- CO1: According to authors what is the concept of "Short Stories"?
- CO2: Describe the theme of the poems prescribed in this unit?
- CO3: Describe the different aspects of HUMAN NATURE.
- CO4: Explain the following: a) Business correspondence
b) Precise writing
c) Comprehension of an Unseen Passage

Course: Marathi**Course outcomes:**

- CO1: वर्तमान कालीन सामाजिक, पर्यावरणावर आधारित निबंध सविस्तर पणे लिहणे.
- CO2: गद्य विभागातील लेखक परिचय, पाठांचा आशय पटवून देणे.
- CO3: पद्य विभागातील कवी, कवयित्री परिचयतसेच कवितेचा आशय, रसग्रहण विद्यार्थ्यांना समजवून देणे.
- CO4: सारांशलेखन, कार्यालयीनपत्र, इंग्रजीउतान्याचे मराठीत भाषांतर, शुद्धलेखनअवगतकरणे.

Course: Hindi**Course outcomes:**

- CO1: भावनात्मक ,वर्णनात्मक तथा विचारात्मक विशयों पर आधारित निबंध विस्तार से लिखना।
- CO2: पत्रोंकेप्रकार ,गुण एवं विशेषताए लिखना तथा आवेदन पत्र का प्रारूप तैयार करना ।
- CO3: पाठ्यक्रम पर आधारित सभी कविताओं का भावार्थ लिखना एवं कवि परिचय देना ।
- CO4: निर्धारित पाठ परआधारित पाठों का सारांश लिखना एवं लेखक का परिचय देना।

Paper: I**Course: Fundamentals of Information Technology****Course outcomes:**

- CO1: Describe basic components of digital computers,CPU, number systems, language evolution, translators.
- CO2: Explain memory, storage devices.
- CO3: Understand input and output Devices.

CO4: Can elaborate network.

Paper: II

Course: Programming Methodology in C

Course outcomes:

CO1: Understand programming structure, problem solving techniques and developing algorithms and flowcharts.

CO2: Work with data types, operators, library functions and control structure.

CO3: Write programs using arrays, string and functions.

CO4: Differentiate structure and union, work with pointers and file handling.

Course: Practical

Course outcomes:

CO1: Write algorithms, draw flowchart and execute C programs on data types, conditional statements, control statements, operators, string functions, arrays, structure, union, pointers, file handling and command line program.

Paper: III

Course: System analysis and design

Course outcomes:

CO1: Understand concepts of system development life cycle.

CO2: Work with different types of design use to make software.

CO3: Understand testing and conversion of system.

CO4: Understand the concept of project planning, risk management, maintenance process.

Paper: IV

Course: Web Technology

Course outcomes:

CO1: Describe Internet, Internet Security, Security Issues and Procedure.

CO2: Describe how to create web pages with HTML tags.

CO3: Describe how to create Images, Tables and Form Design in HTML.

CO4: Describe Cascading Style Sheet and Java Script.

Course: Practical

Course outcomes:

CO1: HTML practical based on basic html tags, table, form designing, linking, cascading style sheet and Java Script Programming.

Paper: V

Course: Multimedia Application Development

Course outcomes:

CO1: Understand the basic concepts used in Multimedia and hypermedia.

CO2: Understand the fundamental concepts in video and digital audio.

CO3: Work confidently with object-oriented Action Script- I and II.

CO4: Understand with different Multimedia data compression algorithms.

Course: Practical

Course outcomes:

CO1: Executed simple Action Script programs on windows media Flash Player software.

Paper: VI

Course: Applied Mathematics – I

Course outcomes:

- CO1: Perceive Propositional Calculus.
CO2: Learn disjunctive and conjunctive normal forms.
CO3: Understand predicate Calculus.
CO4: Solve problems based on predicate calculus.

Program: B. Sc. (IT) Part I (Semester II)

Course: English

Course outcomes:

- CO1: Describe how the lessons in this prose inspire you?
CO2: Describe the theme of the poems prescribed in this unit?
CO3: Explain the following in detail:
a) Subject-Verb Agreement
b) Transformation of Sentences
c) Exercises on Common Errors
CO4: Explain the term "CURRICULUM VITAE"

Course: Marathi

Course outcomes:

- CO1: विज्ञानावर, कल्पकतेवरआधारितनिबंधसविस्तरपणे लिहणे.
CO2: गद्यविभागातीललेखकपरिचय, पाठांचाआशयपटवून देणे.
CO3: पद्यविभागातीलकवी, कवयित्रीपरिचयतसेचकवितेचाआशय, रसग्रहणविद्यार्थ्यांना समजवून देणे.
CO4: सारांशलेखन, कौटुंबिकपत्र, माहितीचाअधिकार, शुद्धलेखन ववाकप्रचारअवगतकरणे.

Course: Hindi

Course outcomes:

- CO1: विज्ञान, कल्पनाशील, आत्मकथातथासमयकसदुपयोग विषयपरआधारितनिबंधविस्तार सेलिखना।
CO2: मुहावरेऔरलोकोक्तियांकाअर्थएवंवाक्यप्रयोगतथाउनकीपरिभाषा लिखना एवं परिभाषिकशब्दकेहिंदीपरिभाषिकशब्दलिखना एवं कल्पनाविस्तारकरना।
CO3: पाठ्यक्रमपरआधारितसभीकविताओंकाभावार्थलिखना एवंकविपरिचयदेना।
CO4: निर्धारितपाठपरआधारितपाठोंकासारांशलिखना एवंलेखककापरिचयदेना।
CO5: पाठ्यक्रमपरआधारितसभीकविताओंकाभावार्थलिखना एवंकविपरिचयदेना।

Paper: I

Course: Fundamentals of Digital Electronics

Course outcomes:

- CO1: Explain features of Digital Systems, Number Systems, Representation of Data, Codes.
CO2: Understand Boolean algebra, Boolean identities, Karnaugh maps.
CO3: Understand Combinational Circuits, Sequential Circuit Design, Shift registers and their types, Counters: Synchronous and Asynchronous counters.
CO4: Understand Basic Organization, Secondary Memory.

Paper: II

Course: Object Oriented Programming Using C++

Course outcomes:

CO1: Understand object oriented methodology, conceptualize classes and objects.

CO2: Interpretation of constructors, destructors and operator overloading.

CO3: Gain knowledge on dynamic objects and inheritance.

CO4: Perceive virtual functions, exception handling and write programs in C++.

Course: Practical

Course outcomes:

CO1: Write algorithms, draw flowchart and execute C++ programs on classes, objects, outside and inside function, static data member, access specifier, constructor, destructor, overloading, operator overloading, virtual function, virtual class, inheritance, pointer to a class.

Paper: III

Course: Operating System

Course outcomes:

CO1: Understand concepts of process management and different type of CPU scheduling.

CO2: Work with deadlocks and different conditions of deadlock.

CO3: Understand swapping, paging, segmentation.

CO4: Understand I/O management, file management

Paper: IV

Course: Web Programming

Course outcomes:

CO1: Describe the fundamental concepts of Internet, WWW and browsers.

CO2: Work confidently with JavaScript and solve problems by using JavaScript.

CO3: Work confidently with ASP and solve problems by using ASP.

CO4: Understand XML documents and Java Server Pages and solve problems.

Course: Practical

Course outcomes:

CO1: Executed simple HTML programs. Program wrote on notepad and ran through Mozilla browser.

Paper: V

Course: Database Management System

Course outcomes:

CO1: Describe DBMS and architecture of DBMS.

CO2: Describe Entity Relationship Model, Specialization and aggregation.

CO3: Describe various relational algebra operations.

CO4: Describe Normalization. Explain different types of Normal Form.

Course: Practical

Course outcomes:

CO1: Write a Query to Create Table, Insert Table, Update Table, Delete Table and also access the value from the Table. To perform query apply Data Definition Language (DDL) and Data Manipulation Language (DML).

Paper: VI

Course: Applied Mathematics – II

Course outcomes:

CO1: Solve problems based on set theory.

CO2: Understand functions.

CO3: Can answer algebraic structures semi groups and lattices.

CO4: Graph theory and trees concept understand.

Program: B. Sc. (IT) Part II (Semester III)

Paper: I

Course: Microprocessor & ALP

Course outcomes:

CO1: Understand an over view of 8085, architecture of 8086 microprocessor, assembly language programs.

CO2: Understand pin diagram of 8086, need for DMA, 8255 PPI, D/A and A/D converter interfacing.

CO3: Describe interrupt structure of 8086, serial data transfer schemes.

CO4: Understand advanced micro processors.

Paper: II

Course: Data Structure

Course outcomes:

CO1: Describe linked list - single and double.

CO2: Work with stacks and its operations.

CO3: Understand Queue, sorting and searching methods.

CO4: Elaborate trees and graphs.

Course: Practical

Course outcomes:

CO1: Can write programs based on linked list, stack, queue, sorting, searching.

Paper: III

Course: Data Communication & Network – I

Course outcomes:

CO1: Understand the fundamental concepts of data communications and Network Architecture.

CO2: Perceive the used of different Transmission Media.

CO3: Differentiate wireless communication systems and their data format.

CO4: Understand with different types of Network Topologies & Connectivity Devices.

Paper: IV

Course: Linux Operating System

Course outcomes:

CO1: Work on Linux environment and master the basics of Linux commands.

CO2: Work efficiently on vi editor, manage and print Linux files.

CO3: Administrate users, groups and manage accounts.

CO4: Work with X windows, KDE and GNOME environment.

Course: Practical

Course outcomes:

CO1: Can work with basic Linux commands, filters, creating and managing users and groups, taking backup and restore, communication utilities, shell scripts, GNOME and KDE.

Paper: V

Course: E-Commerce

Course outcomes:

CO1: Understand scope of e-Commerce, e-Market, value and supply chain.

CO2: Explain various Business Strategies in electronics age.

CO3: Understand Business to Business e-Commerce and E-Market.

CO4: Understand Business to Consumer Electronics Commerce & elements of e-Commerce.

Paper: VI

Course: Statistical Methods

Course outcomes:

CO1: Explain definition of statistics, importance and scope of statistics, limitations of statistics, presentation of statistical data.

CO2: Understand measures of central tendency, relationship amongst different averages.

CO3: Measures of dispersion, meaning and significance of dispersion, methods of measuring dispersion.

CO4: Understand correlation and regression.

Course: Practical

Course outcomes:

CO1: Statistical methods program based on requisites for an ideal measure of central tendency arithmetic, methods of measuring dispersion.

Program: B. Sc. (IT) Part II (Semester IV)

Paper: I

Course: Software Engineering – I

Course outcomes:

CO1: Understand concepts of software engineering and generic view of process.

CO2: Work with different process models and understand software requirements.

CO3: Understand requirements engineering process and system model.

CO4: Can design engineering.

Paper: II

Course: Java Programming

Course outcomes:

CO1: Describe Variables, Data types and Operators in Java.

CO2: Describe how to create object, array, inheritance and interface in Java.

CO3: Describe how to create Packages, Applet, Threads in Java.

CO4: Describe various components, Graphics control, Layout and Container using awt in Java.

Course: Practical

Course outcomes:

CO1: Java Program based on application, Applets , Objects , Methods, Inheritance, Loops, Conditions, Threads and various abstract window toolkit (awt) controls

Paper: III

Course: Data Communication and Network – II

Course outcomes:

CO1: Understand Communication Architecture and Internetworking.

CO2: Understand Transport Protocols.

CO3: Explain Session Services & Protocols.

CO4: Understand Digital Network, ISDN.

Paper: IV

Course: Oracle

Course outcomes:

CO1: Understand Oracle, Introduction to (SQL), Data types.

CO2: Execute SQL Command, Aggregate function, PL/SQL, Join, Sub queries, Views.

CO3: Perform Cursor, Exception Management.

CO4: Describe Database Triggers & Built in Packages, Nested tables, Varrays.

Course: Practical

Course outcomes:

CO1: Executing SQL query based on select and creates Queries based on join, view, cursor and trigger.

Paper: V

Course: Compiler Construction

Course outcomes:

CO1: Understand the compiler and translator and describe the structure of compiler.

CO2: Perceive the structure of high level programming language.

CO3: Know the role of the lexical analyzer and their implementation.

CO4: Understand parsers, code optimization and Code generation in details.

Paper: VI

Course: Numerical Methods

Course outcomes:

CO1: Understand Roots of Non-Linear Equations, Starting & Stopping Iterative method, determining all possible roots.

CO2: Understand Solution to Linear Equations, Round off errors and refinement, m Conditioned system, Matrix inversion method.

CO3: Understand Linear interpolation, Least Square regression Fitting, m conditioning in Least square, Transcendental equations.

CO4: Describe Integration & Differentiation, Multistep method for differential equations.

Course: Practical

Course outcomes:CO1: Numerical Methods programs based on Roots of Non-Linear Equations, Solution to Linear Equations, Linear interpolation and Integration.

Program: B. Sc. (IT) Part III (Semester V)

Paper: I

Course: Software Project Management

Course outcomes:

CO1: Elaborate process and project management, models, project planning infrastructure.

CO2: Explain Process planning, effort estimation & scheduling, effort.

CO3: Know quality planning, risk management.

CO4: Describe measurement and planning, project management plan.

Paper: II

Course: Dot Net Framework and C#

Course outcomes:

CO1: .Net framework, Common Language Runtime, Common Type System, Common Language Specification, Microsoft Intermediate Language (MSIL).

CO2: C-Sharp Language, Data Types, Variables, Array and Strings, Object and Classes, Inheritance, Operator Overloading, Delegates and Events, Interfaces.

CO3: C# Using Libraries, Multi-Threading, Windows Forms, Error Handling.

CO4: Advanced Features Using C#, Web Form Controls, ADO.Net, .Net Assemblies and Attribute.

Course: Practical

Course outcomes:

CO1: Execute programs based on variables, array and string, object and classes, inheritance, operator overloading, delegates and events, interfaces, multi-threading, windows forms, error handling, web form controls.

Paper: III

Course: Network Security

Course outcomes:

CO1: Explain security, threats, risks, attacks, authentication, model for internetwork security.

CO2: Access control model, cryptography and its methods.

CO3: Elaborate encryption, security protocols, network and transport layer security.

CO4: Network security applications and different firewalls.

Course: Practical

Course outcomes:

CO1: C++ Programs based on cryptography, encryption, implement DES, RSA and ElGamal algorithms.

Paper: IV

Course: Data Warehousing

Course outcomes:

CO1: Understand data warehouse, data mart.

CO2: Understand data and dimensional modelling.

CO3: Work with OLAP in data warehouse.

CO4: Build data warehouse.

Paper: V

Course: VB Programming

Course outcomes:

CO1: Describe working with VB Window components, Forms and basic programming fundamentals.

CO2: Describe Array, Procedure, Function and Module.

CO3: Describe menus and Database handling Concepts using DAO.

CO4: Describe how to use ADO data control and Error handling concepts.

Course: Practical

Course outcomes:

CO1: VB Program based on different VB window components like Textbox, Combobox, Checkbox, List box, Images and different database controls.

Paper: VI

Course: Graph Theory

Course outcomes:

CO1: Work with graphs and its operations.

CO2: Understand connected graph.

CO3: Solve theorems.

CO4: Efficiently manage directed graphs.

Program: B. Sc. (IT) Part III (Semester VI)

Paper: I

Course: Enterprise Resource Planning

Course outcomes:

CO1: Introduction to business needs and ERP, overview of ERP, Data Mining, Data Warehousing.

CO2: ERP Client server architecture and ERP, ERP implementation life cycle.

CO3: The business module business models in an ER.

CO4: Selection of ERP, SWOT analysis of various ER? Electronic Data Interchange (EDI).

Paper: II

Course: Advance Java Programming

Course outcomes:

CO1: Describe different controls in java swing.

CO2: Describe JDBC-ODBC model in detail.

CO3: Describe Java bean, Enterprise java bean (EJB) and RMI (Remote Method Invocation).

CO4: Describe Java Servlet and JSP in detail.

Course: Practical

Course outcomes:

CO1: Advance Java Program based on different controls present in swing such as TextField, Combobox, Checkbox, Windows, Dialogbox, Tabbedpane and jdbc-odbc connectivity with the database.

Paper: III

Course: Cloud Computing

Course outcomes:

CO1: Describe cloud computing, IaaS, MaaS, PaaS, SaaS.

CO2: Explain federation, security, standards in cloud.

CO3: Elaborate utility application architecture, service oriented architecture, data center, hyper threading, blade servers, automated provisioning.

CO4: Software utility application architecture, characteristics of SaaS, software utility applications, cost versus value, software application services framework, common enablers, and conceptual view to reality.

Paper: IV

Course: Data Mining

Course outcomes:

CO1: Understand the fundamental concept of data mining and frequent pattern mining.

CO2: Understand the concept of classification and decision tree construction algorithm.

CO3: Understand the different clustering techniques and classification of clustering.

CO4: Understand the different types of partitioned methods using in Data Mining.

Course: Practical

Course outcomes:

CO1: Implemented different types of databases in WEKA software, case study on different databases.

Paper: V

Course: Animation Techniques

Course outcomes:

CO1: Understand techniques and principles of animation techniques.

CO2: Create animation using Flash.

CO3: Explain 3D animation & its concepts.

CO4: Explain motion caption, concept development.

Paper: VI

Course: Operation Research

Course outcomes:

- CO1: Understand overview of operations research, linear programming.
CO2: Know dual problems, transportation model.
CO3: Perceive network models, dynamic programming.
CO4: Describe assignment problem.

Course: Practical

Course outcomes:

- CO1: Operation research programs based on linear programming, transportation model, network models, assignment problem.

5. (e) Course Outcomes of BCA

Program: BCA Part I (Semester I)

Course: English

Course outcomes:

- CO1: According to authors what is the concept of “Short Stories”?
CO2: Describe the theme of the poems prescribed in this unit?
CO3: Describe the different aspects of HUMAN NATURE.
CO4: Explain the following: a) Business correspondence
b) Precise writing
c) Comprehension of an Unseen Passage

Course: Marathi

Course outcomes:

- CO1: वर्तमान कालीन सामाजिक, पर्यावरणावर आधारित निबंध सविस्तर पणे लिहणे.
CO2: गद्यविभागातील लेखक परिचय, पाठांचा आशय पटवून देणे.
CO3: पद्यविभागातील कवी, कवयित्री परिचयत सेच कवितेचा आशय, रसग्रहण विद्यार्थ्यांना समजवून देणे.
CO4: सारांशलेखन, कार्यालयीनपत्र, इंग्रजीउताऱ्याचे मराठीत भाषांतर, शुद्धलेखन अवगत करणे.

Course: Hindi

Course outcomes:

- CO1: भावनात्मक ,वर्णनात्मक तथा विचारात्मक विशयोपर आधारित निबंध विस्तार से लिखना।
CO2: पत्रों के प्रकार ,गुण एवं विशेषताए लिखना तथा आवेदन पत्र का प्रारूप तैयार करना ।
CO3: पाठ्यक्रम पर आधारित सभी कविताओं का भावार्थ लिखना एवं कवि परिचय देना ।
CO4: निर्धारित पाठ पर आधारित पाठों का सारांश लिखना एवं लेखक का परिचय देना।

Paper: I

Course: Computer Fundamentals

Course outcomes:

- CO1: Understand Basic Components of Digital Computers, CPU, Number Systems, Language Evolution, Translators.
CO2: Understand Memory, Storage Devices.
CO3: Understand Input Devices, Output Devices.
CO4: Understand Network.

Paper: II**Course: C Programming****Course outcomes:**

- CO1: Understand programming structure, problem solving techniques and developing algorithms and flowcharts.
- CO2: Work with data types, operators, library functions and control structure.
- CO3: Write programs using arrays, string and functions.
- CO4: Differentiate structure and union, work with pointers and file handling.

Course: Practical**Course outcomes:**

- CO1: Conduct Practical's based on C Programming language.

Paper: III**Course: Statistical Methods****Course outcomes:**

- CO1: Understand about the definition Statistics, Importance and scope of Statistics, Primary and Secondary data collection, study of Classification, Tabulation, Frequency Distribution, Diagrams and Graphs.
- CO2: Understand about Measures of Central Tendency, Graphic Representation of a Frequency Distribution, Study of Mean, Medium and Mode.
- CO3: Understand about the Standard of Deviation, Kurtosis Deviation.
- CO4: Study of Correlation, regression, Scatter Diagram.

Course: Practical**Course outcomes:**

- CO1: Conduct Practical's based on CPP Programming language.

Paper: IV**Course: Discrete Mathematics - I****Course outcomes:**

- CO1: Understand and study of connectives, conjunction and disjunction.
- CO2: Study of disjunctive normal forms.
- CO3: Study of Predicate calculus.
- CO4: Understand the Theory of inference for predicate calculus.

Paper: V**Course: Operating System****Course outcomes:**

- CO1: Explain Structure of Operating System, Operating System functions, Process Management, CPU Scheduling.
- CO2: Understand Performance comparison, Deadlock and Starvation.
- CO3: Understand Memory Management, Memory Allocation Method.
- CO4: Explain I/O Management, File Management, Protection Mechanisms.

Paper: VI**Course: Office Automation****Course outcomes:**

- CO1: Windows Operating System, operating with windows, windows XP/Vista versions.
- CO2: MS- Word.
- CO3: MS-Excel.
- CO4: MS-PowerPoint.

Course: Practical**Course outcomes:**

CO1: Conduct practical's based on MS Word, Excel and Power Point. Based on practical's prepared record book.

Program: BCA Part I (Semester II)**Course: English****Course outcomes:**

CO1: Describe how the lessons in this prose inspire you?

CO2: Describe the theme of the poems prescribed in this unit?

CO3: Explain the following in detail:

a) Subject-Verb Agreement

b) Transformation of Sentences

c) Exercises on Common Errors

CO4: Explain the term "CURRICULUM VITAE"

Course: Marathi**Course outcomes:**

CO1	विज्ञानावर, कल्पकतेवर आधारित निबंध सविस्तरपणे लिहणे.
CO2	गद्यविभागातील लेखक परिचय, पाठांचा आशय पटवून देणे
CO3	: पद्यविभागातील कवी, कवयित्री परिचयत सेचकवितेचा आशय, रसग्रहण विद्यार्थ्यांना समजवून देणे.
CO4	सारांश लेखन, कौटुंबिकपत्र, माहितीचा अधिकार, शुद्धलेखन ववाकप्रचार अवगत करणे.

Course: Hindi**Course outcomes:**

CO1	विज्ञान, कल्पनाशील, आत्मकथा तथा समय क। सदुपयोग विषय पर आधारित निबंध विस्तार से लिखना।
CO2	मुहावरे और लोकोक्तियां का अर्थ एवं वाक्य प्रयोग तथा उनकी परिभाषा लिखना एवं परिभाषिक शब्द के हिंदी परिभाषिक शब्द लिखना एवं कल्पना विस्तार करना।
CO3	पाठ्यक्रम पर आधारित सभी कविताओं का भावार्थ लिखना एवं कविपरिचय देना।
CO4	निर्धारित पाठ पर आधारित पाठों का सारांश लिखना एवं लेखक का परिचय देना।
CO5	पाठ्यक्रम पर आधारित सभी कविताओं का भावार्थ लिखना एवं कवि परिचय देना।

Paper: I**Course: Object Oriented Programming Using C++****Course outcomes:**

- CO1: Understand Object oriented methodology, conceptualize classes and objects.
CO2: Interpretation of constructors, destructors and operator overloading.
CO3: Gain knowledge on dynamic objects and inheritance.
CO4: Perceive virtual functions, exception handling and write programs in C++.

Course: Practical

Course outcomes:

CO1: Conduct practical's based on CPP Programming language.

Paper: II

Course: System Analysis and Design

Course outcomes:

- CO1: Understand concepts of system development life cycle.
CO2: Work with different types of design use to make software.
CO3: Understand testing and conversion of system.
CO4: Understand the concept of project planning, risk management, maintenance process.

Paper: III

Course: Numerical Methods

Course outcomes:

- CO1 : Understand Roots of Non-Linear Equations, Starting & Stopping Iterative method, determining all possible roots.
CO2 : Understand Solution to Linear Equations, Round off errors and refinement, m Conditioned system, Matrix inversion method.
CO3 : Understand Linear interpolation, Least Square regression Fitting, m conditioning in Least square, Transcendental equations.
CO4 : Describe Integration & Differentiation, Multistep method for differential equations.

Course: Practical

Course outcomes:

CO1: Conduct practical's based on CPP Programming language.

Paper: IV

Course: Discrete Mathematics - II

Course outcomes:

- CO1: Understand and study of set theory.
CO2: Study of different types of functions.
CO3: Understand and study Algebraic structures.
CO4: Understand and study of Graph theory and trees.

Paper: V

Course: Linux Operating System

Course outcomes:

- CO1: Work on Linux environment and master the basics of Linux commands.
CO2: Work efficiently on vi editor, manage and print Linux files.
CO3: Administrate users, groups and manage accounts.
CO4: Work with X windows, KDE and GNOME environment.

Course: Practical

Course outcomes:

CO1: Can work with basic Linux commands, filters, creating and managing users and groups, taking backup and restore, communication utilities, shell scripts, GNOME and KDE.

Paper: VI

Course: E-Commerce

Course outcomes:

CO1: Explain introduction to e-Commerce, Trade Cycle, E-Market.

CO2: Understand business strategy in electronic age.

CO3: Understand Business to Business e-Commerce.

CO4: Explain Business to Consumer Electronic Commerce.

Program: BCA Part II (Semester III)

Paper: I

Course: Visual Basic Programming

Course outcomes:

CO1: Describe working with VB Window components, Forms and basic programming fundamentals.

CO2: Describe Array, Procedure, Function and Module.

CO3: Describe menus and Database handling Concepts using DAO.

CO4: Describe how to use ADO data control and Error handling concepts.

Course: Practical

Course outcomes:

CO1: VB Program based on different VB window components like Textbox, Combobox, Checkbox, List box, Images and different database controls.

Paper: II

Course: Database Management System

Course outcomes:

CO1: Understand DBMS Definition, Three level architectures of DBMS, Different types of data models.

CO2: Understand E-R Models.

CO3: Explain Relational Model, Aggregate Functions.

CO4: Understand Functional Dependency, Normalization.

Paper: III

Course: Data Structure

Course outcomes:

CO1: Understand and study the concept of linked list.

CO2: Understand and study the concept of stacks.

CO3: Understand and study the concept of queues, sorting and searching.

CO4: Understand and study the concept of trees and graphs.

Course: Practical

Course outcomes:

CO1: Executions of DS practical's in CPP language.

Paper: IV

Course: Operation Research – I

Course outcomes:

CO1: Describe Introduction to Operation Research, Linear Programming, Mathematical Formulation of the Problem.

CO2: Describe Linear Programming Methods, Duality in Linear Programming.

CO3: Describe Transportation Problem.

CO4: Describe Assignment Problem.

Paper: V

Course: Web Technology - I

Course outcomes:

CO1: Understand concept of HTTP, URL, Search Engines, Search Engines categories.

CO2: Work with different HTML Command Tags.

CO3: Understand the concept of DHTML.

CO4: Describe CSS (Cascading style sheets).

Course: Practical

Course outcomes:

CO1: Practical's executed on Notepad.

Paper: VI

Course: Digital Electronics - I

Course outcomes:

CO1: Number System and Data Representation.

CO2: Data Representation, Binary Arithmetic.

CO3: Logic gates, NOR and NAND gates as a universal gates.

CO4: Boolean Algebra, K-Map for 2,3,4 variables, SOP and POS Logic Expression.

Program: BCA Part II (Semester IV)

Paper: I

Course: Software Engineering - I

Course outcomes:

CO1: Understand concepts of software engineering and generic view of process.

CO2: Work with different process models and understand software requirements.

CO3: Understand requirements engineering process and system model.

CO4: Can design engineering.

Paper: II

Course: SQL and PL/SQL

Course outcomes:

CO1: Explain CODD'S Rules, DDL Statement, DCL and TCL Statements, Joins.

CO2: Understand Practical's based on VIEWS, PL/SQL Programming.

CO3: Understand Practical's based on Exception Handling, Cursors and Procedures.

CO4: Understand Practical's based on Function, Triggers.

Course: Practical

Course outcomes:

CO1: All SQL queries are executed on ORACLE 9i software.

Paper: III

Course: Theory of Computation

Course outcomes:

CO1: Describe Finite Automata and Regular Expression.

CO2: Describe Regular Set and Derivation Tree.

CO3: Describe Context Free Grammar and Context Free Languages (CFL's).

CO4: Describe Push Down Automata

Paper: IV

Course: Operation Research - II

Course outcomes:

CO1: Describe Game Theory, Introduction Decision under Certainty, Decision under Risk, Decision under Uncertainty, Decision Tree.

CO2: Understand Network Scheduling by CPM/PERT, Advantage of Network (PERT/CPM).

CO3: Understand Inventory Control, Inventory Control with Price Breaks.

CO4: Describe Queuing Theory Introduction, Terminologies in Queuing System, Queuing Control.

Course: Practical

Course outcomes:

CO1: Practical's executed in CPP language.

Paper: V

Course: Web Technology - II

Course outcomes:

CO1: Understand concept of JSP lifecycles.

CO2: Work with different JSP Exceptions, JSP tags, declaration, object.

CO3: Understand the concept of vb script.

CO4: Describe web services.

Course: Practical

Course outcomes:

CO1: Practical's executed on Notepad

Paper: VI

Course: Digital Electronics - II

Course outcomes:

CO1: Combinational / Sequential Circuits Combinational circuits, Multiplexer, Demultiplexer, Decoder, Encoder, Parity detector.

CO2: Sequential Circuits Counters shift registers and their types.

CO3: Architecture of 8086 and Assembly Language Programming Block diagram of 8086, Pin diagram of 8086, Addressing modes,

CO4: Instruction set: Data transfer, Arithmetic, Logical, String manipulations, Control Transfer, Unconditional branch, Conditional branch, Flag, Processor control. Assembler directives and operators, simple assembly programs.

Program: BCA Part III (Semester V)

Paper: I

Course: Computer Graphics - I

Course outcomes:

CO1: Understand of Introduction and Primitives.

CO2: Study of Output primitives.

CO3: Study of 2D Transformations.

CO4: Study of 2-D viewing.

Course: Practical

Course outcomes:

CO1: Practical's executed in CPP language.

Paper: II

Course: Compiler Construction

Course outcomes:

CO1: Understand the compiler and translator and describe the structure of compiler.

CO2: Understand the structure of high level programming language.

CO3: Understand the role of the lexical analyser and their implementation.

CO4: Understand the Parsers, Code optimization and Code generation in details.

Paper: III

Course: VB.Net

Course outcomes:

CO1: Understand the concept of .NET framework.

CO2: Work with abstraction & interfaces on object oriented software design.

CO3: Understand creating a menu.

CO4: Understand delegates in details.

Course: Practical

Course outcomes:

CO1: Practical's executed on Microsoft Visual Studio 2008.

Paper: IV

Course: Software Engineering - II

Course outcomes:

CO1: Create an architectural design.

CO2: Understand different testing strategies.

CO3: Perceive product metrics and metrics for process and products.

CO4: Manage risk and quality.

Paper: V

Course: PHP - I

Course outcomes:

CO1: Describe Introduction to PHP, Basics.

CO2: Understand Functions.

CO3: Understand Arrays.

CO4: Describe reading data in web pages, Handling Buttons.

Course: Practical

Course outcomes:

CO1: PHP-I program based on String, Functions, Arrays executed on WampServer software.

Paper: VI

Course: Data Communication and Network - I

Course outcomes:

CO1: Understand Data Transmission, Data Encoding.

CO2: Explain Digital Data Communication, Data Link Control, Multiplexing.

CO3: Understand Circuit Switching, Digital switching concept.

CO4: Understand Packet Switching, Traffic control.

Program: BCA Part III (Semester VI)

Paper: I

Course: Computer Graphics - II

Course outcomes:

CO1: Polygon surfaces, quadric surfaces, spline representation, Curves, surfaces.

CO2: 3-D Geometric transformations. 3-D viewing, Viewing pipeline, projection transforms and clipping.

CO3: Visible surface detection methods, back-face detection.

CO4: Computer animation, Design of animation sequence.

Paper: II**Course: Programming in JAVA****Course outcomes:**

CO1: Describe Variables, Data types and Operators in Java.

CO2: Describe how to create object, array, inheritance and interface in Java.

CO3: Describe how to create Packages, Applet, Threads in Java.

CO4: Describe various components, Graphics control, Layout and Container using awt in Java.

Course: Practical**Course outcomes:**

CO1: Java Program based on application, Applets , Objects , Methods, Inheritance, Loops, Conditions, Threads and various abstract window toolkit (awt) controls.

Paper: III**Course: ASP.Net****Course outcomes:**

CO1: Understand the basic elements used for creating XML file.

CO2: Work on ASP.net environment and to solve application by using ASP controls.

CO3: Understand different validation and rich controls.

CO4: Work confidently with database connectivity by using different database controls.

Course: Practical**Course outcomes:**

CO1: Executed simple programs by using ASP.net controls, validation controls etc. in Microsoft Visual Studio 2008.

Paper: IV**Course: Software Testing****Course outcomes:**

CO1: Understand testing as a process and tester's role in a software development organization.

CO2: Work with different test case design strategies.

CO3: Understand levels of testing.

CO4: Understand test management in detail.

Paper: V**Course: PHP - II****Course outcomes:**

CO1: PHP Browser-Handling Power, Using PHP's Server Variables Data Validation.

CO2: Classes and Objects, Accessing Properties and Methods, Declaring a Class, Introspection, Serialization, HTTP Basics.

CO3: Working With Database, Using PHP to Access a Database, Accessing The Database In PHP.

CO4: Setting a Cookie, Working with FTP Shell Commands.

Course: Practical**Course outcomes:**

CO1: PHP-II program based on WampServer software.

Paper: VI**Course: Data Communication and Network - II****Course outcomes:**

CO1: Understand Communication Architecture and Internetworking.

CO2: Understand Transport Protocols.
CO3: Explain Session Services & Protocols.
CO4: Understand Digital Network, ISDN.

6. (A) Course Outcomes of M. Sc. (CS)

Program: M. Sc. (CS) Part I (Semester I)

Paper: I

Course: Discrete Mathematical Structure

Course outcomes:

CO1 : Describe Fundamental set and Mathematical.
CO2 : Explain Permutation and Combination and different algorithms.
CO3 : Overview of Graph Theory.
CO4 : Focus on Semigroup and groups with Comput ability.

Paper: II

Course : Programming in Java

Course outcomes:

CO1 : Introduction to Java.
CO2 : Explain Applet and AWT.
CO3 : Describe JDBC and RMI.
CO4 : Focus on Servlet and Java Beans

Course: Practical

Course outcomes:

CO1: Practical's Conducted on Text-pad.

Paper: III

Course : Digital Electronics and Microprocessor

Course outcomes:

CO1: Closely lookin to Number system and data representation.
CO2: Explain Boolean Algebra and Combinational Circuit.
CO3: Describe sequential circuits and counters.
CO4: Overview of 8086 Microprocessor with Assembly language Programming.

Paper: IV

Course : Advanced DBMS and Administration.

Course outcomes:

CO1 : Closely look into Relational Database Design.
CO2 : Explain Transaction Processing & Concurrency Control.
CO3 : Describe Oracle Data base Architecture and Administration with Back up and Recovery strategies.
CO4 : Overview of Oracle Tuning and Trouble shooting.

Course: Practical

Course outcomes:

CO1: Practical's conducted on Oracle 8i.

Program: M. Sc. (CS) Part I (Semester II)

Paper: I

Course : Windows Programming using VC++

Course outcomes:

CO1 : Introduction to VC++.

CO2 : Explain Document View Architecture.

CO3 : Describe ActiveX :COM, Automation and OLE.

CO4 : Overview of Database Management and Programming for Internet.

Course: Practical

Course outcomes:

CO1: Practical's conducted on Visual Studio 6.0.

Paper: II

Course : Theory of Computation and Compiler Construction

Course outcomes:

CO1 : Introduction to Finite Automata and Regular Expression.

CO2 : Describe Push down Automata and Turing Machine.

CO3 : Explain in details about Compilers.

CO4 : Overview of Syntax directed translation and Code Generation.

Paper : III

Course : Computer Architecture and Organization

Course outcomes:

CO1 : Principle of computer design.

CO2 : Describe Control Unit.

CO3 : Explain Memory Subsystem.

CO4 : Overview of Input Output Processing.

Paper: IV

Course:ComputerGraphics

Course outcomes:

CO1 : Introduction of computer Graphic sandits applications.

CO2 :Describe Algorithms about computer Graphics.

CO3 : Explain Basic Transformation.

CO4 : Overview of Fractal geometry and concentrate on colormodels.

Course: Practical

Course outcomes:

CO1: Practical's conductedon C++ software.

Program: M. Sc. (CS) Part II (Semester III)

Paper: I

Course:Data Communication and Networks

Course outcomes:

CO1 : Describe Network structure, architectures and services OS Ireference model.

CO2 : Explain Different layers.

CO3 : Overview of Network Security Fundamentals.

CO4 : Focus on Message Authentication , Public key Systems.

Course: Practical

Course outcomes:

CO1: Practical based on C++software.

Paper: II

Course:Software Engineering

Course outcomes:

- CO1: Introduction to Software Engineering, A Generic view of process, Models.
CO2: Explain Requirements engineering process, Design Engineering.
CO3: Overview Object-Oriented Design, Testing Strategies.
CO4: Focus on Metrics for Process and Products, Quality Management.

Paper: III

Course: ASP. NET

Course outcomes:

- CO1 : Understand the ASP.net programming model and core server controls.
CO2 : Work with different ASP.net web controls and data controls.
CO3 : Work with different Data Grid, List View etc. controls and Http Application class.
CO4 : Work with State management and security in ASP.net and AJAX Practical based on Microsoft Visual studio 2008.

Paper: IV

Course : Mobile Computing

Course outcomes:

- CO1 : Perceive communication with mobile and its security.
CO2 : Understand wireless MAC and CDM Abases communication.
CO3 : Handle mobile databases.
CO4 : Understand Mobile devices server and management and various mobile OS.

Program: M. Sc. (CS) Part II (Semester IV)

Paper: I

Course: Data Mining

Course outcomes:

- CO1 : Introduction to Data Mining.
CO2 : Overview of Exploring Data and OLAP.
CO3 : Describe Data Mining Classification.
CO4 : Explain Data Mining Cluster Analysis.

Paper: II

Course: Artificial Intelligence & Expert System

Course outcomes:

- CO1: Introduction to AI problems, AI Techniques.
CO2: Understanding Knowledge Representation, Predicate Logic.
CO3: Games playing, Planning.
CO4: Understanding as Constraint satisfaction, Natural Language Processing

Paper: III

Course: Design and Analysis of Algorithm

Course outcomes:

- CO1: Elementary Algorithmics, Analysis of Algorithms.
CO2: Understanding Greedy Algorithms, Divide and Conquer.
CO3: Overview of Dynamic Programming, short estpaths.
CO4: Introduction to Backtracking & Brach Bound, NP Completeness.

Course: Practical

Course outcomes:

- CO1: Practical based on C++ software.

Paper: IV

Course : Parallel Computing

Course outcomes:

- CO1: Describe parallel computing.
 CO2: Understand principles of parallel algorithms design.
 CO3: Analytical modelling of parallel programs.
 CO4: Work with programming shared address space platforms.

6. (b) Course Outcomes of M. Com

Program : M. Com Part I (Semester I)

Course Name : Advanced Financial Accounting -I

Course Outcome

CO1	The student shall be able to identify and describe different accounting standards.
CO2	The student shall be able to prepare consolidated financial statements based on relevant accounting standards.
CO3	The student shall be able to read and analyze consolidated financial statements including accounting policies and other information disclosures.
CO4	The student shall be able to demonstrate the usage and application of computer software accounting.
CO5	The Student shall be able to carry out fire insurance calculations and claims settlement process.

Course Name : Indian Financial System

Course Outcome

CO1	The student shall be able to identify the role, importance and functioning of the financial markets, financial system, financial instruments, and financial institutions.
CO2	The student shall be able to evaluate the banking system in India and its operational formalities.
CO3	The Student shall be able to critically analyze the functioning of life and non-life insurance in India and its policies.
CO4	The student shall develop the capacity to extrapolate the functions of important intermediaries and regulatory bodies like stock exchanges, rating agencies, SEBI, RBI, etc. in financial system.
CO5	The student shall be able to classify the different financial markets and instruments.

Course Name : Managerial Economics

Course Outcome

CO1	The student shall be able to understand economies and diseconomies of scales, economies of scope, and cost functions and how each affects the cost of production, the four basic market models and price and quantity determination in each market model.
CO2	The Student shall be able to calculate various types of elasticity of demand and will also be able to use demand forecasting and its various methods, measurement of GDP and learn about different phases of business cycles.

CO3	The students shall be able to measure the responsiveness of consumers demand to changes in the price of goods and services
CO4	The student shall be able to derive the equilibrium conditions for cost minimization and profit maximization.
CO5	The student shall learn to determine how prices work in markets, how market participants benefit in the form of consumer surplus and producer surplus.

Course Name :Marketing Management

Course Outcome

CO1	The student shall be able to formulate a marketing plan including marketing objectives, marketing mix, strategies, budgetary considerations and evaluation criteria
CO2	The student shall be able to analyze pricing strategies taking into account perceived value, competitive pressures and corporate objectives and formulate strategies for efficient distribution of products and services.
CO3	The student will be competent for choosing the best distribution channel keeping in mind the suitability for the company.
CO4	The student will be capable of using digital technology for designing the promotion mix (advertising, sales promotion, public relations, personal selling, and direct marketing etc.) for the product.
CO5	The student will learn the basic marketing skills. The subject will help them in making the appropriate subject choice for further specializations.

Program : M. Com Part I (Semester II)

Course Name : Research Methodology

Course Outcome

CO1	The student will develop the ability to select problem, formulate research questions, identify and consult relevant sources to find solutions.
CO2	The student shall acquire basic knowledge of qualitative and quantitative research techniques.
CO3	The student shall have knowledge of measurement and scaling techniques.
CO4	The student shall understand the logical connection between basics of data analysis.
CO5	The student shall understand the logical connection between basics of data analysis.

Course Name :Advanced Cost Accounting

Course Outcome

CO1	The student shall be able to understand basic conceptual framework of cost, the student will be able to identify/ classify different elements/classification of cost and will be able to prepare cost sheet and prepare quotations for various business proposals.
-----	--

CO2	The student shall be able to develop time management for specific product so as to ascertain cost, volume and profit with the help of Break-even point, Margin of safety, profit volume ratio, desired profit/desired sales as well as evaluate the decision making proposals.
CO3	The student shall be able to classify expenses on the basis of their nature and estimate cost of operating a service.
CO4	The student shall be able to read and analyze expenses and income, receipt and payment, projected sales. The student shall also be able to prepare relevant functional level budget for an organization.
CO5	The student shall be able to identify the standard and actual performance with the help of direct material and labour variances. Cooperation

Course Name :Human Resource Management

Course Outcome

CO1	The student will be able to understand the development, implementation and evaluation of employee recruitment, selection, orientation, training and retention plans and processes
CO2	The student will learn evaluation of the performance management program. Effective coordination between employees and labour relations in both non union and union environments.
CO3	The student shall be capable of communicating the organization's compensation plan, public safety measures, legal compliances, health and safety practices etc.
CO4	The student shall be able to analyze situations, develop implement and evaluate organizational development strategies aimed at promoting organizational effectiveness, in order to support the human resources functions.
CO5	. The student shall be able to communicate the human resources component of the organization's business plan. The student shall also be equipped to conduct research, produce reports and recommend changes in human resource practices.

Course Name :Cooperation

Course Outcome

CO1	The student shall be able to understand the principles and importance of cooperation and cooperative movement in India.
CO2	The student shall be able to demonstrate the functions and working of cooperative credit institutions in India.
CO3	The student shall learn new things which help in bringing about social change
CO4	The student shall be able to justify the role of cooperation in rural economy
CO5	The student shall be able to understand and distinguish between globalization and cooperation.