BCA COURSE FIRSTSEMESTER

COURSE OUTCOMES

BCA S104 :
Business Communication

After Completion of this course, the students will be able to:

1. Outline the essential components of communication as well as recognize the barriers in communication.

2. Explain fundamental concepts of Business Communication.

3. Apply the principles of effective oral communication.

4. Associate rules of effective writing with Business documents.

5. Evaluate main points to consider when communicating with the help of technology.

6. Develop an understanding of the impact of information technology on business correspondence.

BCA S101T:
Computer Fundamental & Office Automation

After Completion of this course, the students will be able to:

1. Remember the basic terminologies used for the Computers as well as familiarize with various Number Systems.

2. Discuss the Evolution of various types of the Operating system.

3. Apply different operations of the Windows Operating Environment.

4. Illustrate the use of Spreadsheets and Database Packages.
5. Compare and Co-relate different algorithms and flowcharts.
6. Create a basic foundation of representing the solution of simple problems using Algorithm and Flowcharts.

BCA S110:
Mathematics - I

After Completion of this course, the students will be able to:

1. Calculate the determinant of a Matrix.

2. Understand the concept of limits of a function (two and more variables).

3. Develop the concept of a continuous function (two or more variables).

4. Interpret the derivatives of a function at a point.

5. Describe the double integral of a function of two variables.
6. Classify the vectors into their respective dimensions and evaluate their products.

BCA S103 :
Principles of Management

After Completion of this course, the students will be able to:

1. Define the process of management's four functions: planning, organizing, leading, and controlling.

2. Explain how organizations adapt to an uncertain environment and identify techniques managers use to influence and control the internal environment.

3. Apply the managerial tasks of planning, organizing and controlling in a variety of circumstances.

4. Analyze global situations, including opportunities and threats that will impact management of an organization.

5. Evaluate the global context for taking managerial actions of planning, organizing and controlling.

6. Create a link between management principles and management practices.

BCA S102T :
Programming Principles and Algorithms

After Completion of this course, the students will be able to:

1. Understand the basic concepts of Programming.

2. Develop conditional and iterative statements for writing programs.

3. Compare different problem solving techniques.
4. Apply various problem solving techniques and become proficient in problem solving.

5. Analyze the given problems and design Algorithms and Flowcharts for the given problems.

6. Remember type of functions , create and Implement functions for various programs.

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BCA COURSE
SECOND SEMESTER

COURSE OUTCOMES

BCA S106T :
C Programming

After Completion of this course, the students will be able to:

1. Define and conceptualize different data types.
2. Create String functions without using standard library functions.
3. Understand Dynamic Memory Allocation and Inscribe C programs that use pointers to access arrays, strings and functions.
4. Apply User Defined data types to solve problems.
5. Illustrate the knowledge of Conditional Compilation, Preprocessor directives , and execute File Handling proficiently.
6. Evaluate different types of Operators.

BCA S107 :
Digital Electronics & Computer Organizatio0n

After Completion of this course, the students will be able to:

1. Remember the elementary concept of logic gates and different Boolean laws which helps in reduction of the Boolean expression.
2. Formulate the basics about the different building block of Circuit.
3. Understand the configuration of the different types of memory.
4. Apply the basic understandings for various outcomes of counters and registers.
5. Analyze the process of transferring logical addresses to physical addresses and develop some ideas for such memory configuration.
6. Evaluate different flip-flops, Registers, counters and designing models .

BCA S109 :
Financial Accounting & Management

After Completion of this course, the students will be able to:

1. Understand Financial Accounting and Financial Accounting Statements.

2. Associate accounting concepts with the real world situations.

3. Remember the procedure of preparing the final accounts of an enterprise and utilize the computer technology in facilitating and enhancing accounting and financial reporting processes

4. Develop basic understanding of concepts of financial management and knowledge about implementation of funding decision.

5. Use tools & techniques needed for financial analysis in modern business management.

6. Evaluate the basic concepts and importance of working capital management and its components.

BCA S110:
Mathematics - II

After Completion of this course, the students will be able to:

1. Create sets verbally using appropriate mathematical terms (e.g., inclusive) and be able to write sets in roster form and set-builder notation.

2. Identify how the shape of a graph of a function features properties of the function such as increasing, decreasing, even and odd.

3. Illustrate the properties of relations – reflexive, symmetric, transitive, and anti-symmetric.

4. Calculate the domain and range of a function from the algebraic form.

5. Describe the triple integral of a function of three variables.

6. Relate the properties of 3D Co-ordinate Geometry with lines and planes.

BCA S108:
Organization Behaviour

After Completion of this course, the students will be able to:

1. Remember the fundamental concepts of organizational behavior.

2. Understand personality, group dynamics and motivation.

3. Analyze the behavior of individual and group in Organization .

4. Apply the concepts of organizational behavior concepts and theories to real life management situations.

5. Compare the concept and nature of different behavior theories.

6. Develop an understanding of Conflicts in an Organization.

BCA COURSE
THIRD SEMESTER

COURSE OUTCOMES

BCA S204 :
Business Economics

After Completion of this course, the students will be able to:

1. Analyze the significance of scarce resources and its prudent utilization.

2. Understand the price-mechanism and its impact on the overall demand-supply situation.

3. Define different types of markets, and related market forces determining profitability of firms.

4. Develop the basic concepts regarding wide range of macro-economic components governing national economy.

5. Relate the studied economic theories and practices with economic events happening around in reality.
6. Apply Economic concepts in handling real world problems.

BCA S203:
Computer Architecture & Assembly Language

After Completion of this course, the students will be able to:

1. Remember the concepts of Basic Computer Organization and design.

2. Apply the Arithmetic Algorithms with their Procedural implementation in Computer Architecture.

3. Compare the Input and Output Organization of different Microprocessors.

4. Evaluate different Microprocessors and their Architectural Interface.

5. Understand the Assembly Language Programming for 8085 Microprocessor.
6. Create basic assembly level programs .

BCA S202T :
Data Structure Using C & C++

After Completion of this course, the students will be able to:

1. Understand fundamental concepts of Data Structures for storage and retrieval of ordered or unordered data.
2. Design Linear and Non-linear data structures and apply appropriate data structure for a specified problem definition.
3. Define algorithms for the creation, insertion, deletion, and traversal in each data structure.
4. Apply different searching and sorting algorithms on various data structures proficiently.
5. Illustrate the knowledge of Mathematical Techniques in Data Storage.
6. Evaluate different algorithms for optimum utilization in problem solving.

BCA S205:
Elements of Statistics

After Completion of this course, the students will be able to:

1. Understand the basic knowledge of Statistics including the Types of Sample and Arrangement of Data by classification.
2. Apply the Concept and Types of Different Measures of Central Tendency in solving real life problems.
3. Classify different Measures of Variation and discuss their uses.
4. Develop the fundamental concepts of Permutation and Combination
5. Define an Experiment, Event and the Basics of Probability.
6. Analyze the Basics and Significance of Quality Control and Different types of Charts for measuring the Control Limits.

BCA S201T:
Object Oriented Programming Using C++

After Completion of this course, the students will be able to:

1. Remember the concept of class and object.

2. Associate real world scenario with object oriented problem programming paradigm.

3. Implement memory management.

4. Understand how to relate the major object-oriented concepts to implement object oriented programs in C++ using encapsulation, inheritance and polymorphism.

5. Enhance the skill to incorporate exception handling in object-oriented programs.

6. Apply template classes and file stream.

BCA COURSE
FOURTH SEMESTER

COURSE OUTCOMES

BCA S206T:
Computer Graphics & Multimedia Applications

After Completion of this course, the students will be able to:

1. Define Computer Graphics and understand the Primitive Graphics Functions.
2. Formulate the Coordinate Geometry Equations in Computer Graphics.
3. Understand the concept and Application of Computer Graphics Algorithms in Procedural and Object Oriented Programming Languages.
4. Apply the components of Graphics in Entertainment and Media Industry.
5. Analyze different Computer Graphics software related to Multimedia and Animation.
6. Evaluate different technologies used to create and edit Computer Graphics.

BCA S210 :
Mathematics-III

After Completion of this course, the students will be able to:

1. Develop the basic idea of complex analysis with particular emphasis on Cauchy's Theorem and the calculus of residues.
2. Define continuity and differentiability for complex functions.
3. Analyze the existence-uniqueness theorem of differential equations.
4. Determine the solution of higher-order linear differential equations.
5. Apply the rules of differentiation including the power rule, product rule, quotient rule and chain rule to compute the expression for the derivative of a function
6. Compute the expression for the derivative of a composite function using the chain rule of differentiation.

BCA S207 :
Operating System

After Completion of this course, the students will be able to:

1. Remember the basic concepts of operating system.

2. Create the concept of primary memory, secondary memory and other storage devices.

3. Apply the concept of virtual memory.

4. Illustrate the structure of disk and explain disk management.

5. Understand the concepts of dead lock, starvation, bounded waiting and mutual exclusion conditions.

6. Analyze C.P.U scheduling, various Scheduling criteria and Scheduling Algorithms.

BCA S209 :
Optimization Techniques

After Completion of this course, the students will be able to:

1. Remember the Basic Concept and Importance of Operations Research.

2. Apply different methods of OR in the real life scenarios.

3. Develop the understanding of different methods for finding the Solution of variety of problems.

4. Formulate the problems to enhance the analytical Ability by

5. Evaluate the limitations of the field of Operations.

6. Analyze different algorithms to achieve optimum conditions for job sequencing.

BCA S208 :
Software Engineering

After Completion of this course, the students will be able to:

1. Remember strong fundamental concepts of software engineering and evolution to begin in practice as a software engineer.
2. Design approaches of software engineering, characteristics on which requirement and specification are evaluated.
3. Describe requirement, analyze different design issues and build blue print to develop products.
4. Evaluate maintenance as a part of software and use techniques of software maintenance.
5. Associate design with implementation and handle implementation issues on programming environment.
6. Apply new software models, techniques and technologies to bring out innovative and novelistic solutions.

BCA COURSE
FIFTH SEMESTER

COURSE OUTCOMES

BCA S303 :
Computer Networks

After Completion of this course, the students will be able to:

1. Understand the fundamental concepts of computer networking and enumerate the layers of the OSI model and TCP/IP.
2. Remember the basic taxonomy and terminology of the computer networking area, independently understand basic computer network technology.
3. Analyze different advanced networking concepts and explain Data Communications System and its components.
4. Build the skills of sub-netting and routing mechanisms, gain some knowledge in the specific areas of networking such as in the design and maintenance of individual networks.
5. Evaluate basic protocols of Computer Networks, and how they can be used to assist in network design and implementation.
6. Apply the fundamental algorithms of Computer Networks to obtain Optimum outputs in Real-life Problems.

BCA S301T :
Introduction to DBMS

After Completion of this course, the students will be able to:

1. Apply the concept of Database.
2. Develop the understanding of different modeling techniques used in DBMS.
3. Remember the concept of File system and Data.

4. Illustrate Entity-Relationships through precise E-R Diagrams.

5. Understand the basic concept and importance of Data Normalization.

6. Determine solutions of complex database problems through Relational data model and SQL .

BCA S302T :
Java Programming and Dynamic Webpage Design

After Completion of this course, the students will be able to:

1. Create Java programs that solve simple business problems.

2. Analyze and validate user input.

3. Define a Java class based on a UML class diagram.

4. Illustrate a test plan to validate a Java program.

5. Demonstrate the use of good object-oriented design principles including encapsulation and information hiding through some basic java programming designs.

6. Describe the tags associated with HTML and create Dynamic Webpages.

BCA S304:
Numerical Methods

After Completion of this course, the students will be able to:

1. Understand the importance of Numerical Methods.

2. Apply different methods in real-life scenarios.

3. Create an understanding of different methods.

4. Analyze the problems and formulate optimum solutions.

5. Remember the limitations of the field of Numerical Methods.

6. Evaluate different solutions acquired through Numerical Methods and implement the desired ones.

BCA COURSE
SIXTH SEMESTER

COURSE OUTCOMES

BCA S307:
Computer Network Security

After Completion of this course, the students will be able to:

1. Remember the basic concepts of System Security.

2. Develop familiarity with the Network security and Architecture.

3. Analyze different models of Network Security and understand their importance.

4. Understand the importance of Web Security.

5. Evaluate IP Security Architecture.

6. Apply the concepts of Network Management Security.

BCA S309 :
E-Commerce

After Completion of this course, the students will be able to:

1. Understand the Concept of E-commerce and Business Strategy in Electronic Age and different models of E-Commerce.

2. Administer and Maintain B2B E-Business sites.

3. Understand the Internet Architecture and Electronic Payment System.

4. Demonstrate the knowledge of Legal and Regulatory policy issues in E-commerce.

5. Evaluate E-commerce models and identify the requirements for starting up and operating E-business sites.

6. Determine the protection methods from public policy issues.

BCA S308:
Information Systems: Analysis, Design & Implementation

After Completion of this course, the students will be able to:

1. Understand System Development Life Cycle.

2. Analyze and specify the requirements of a system by gathering data.

3. Develop system proposal.

4. Design system components and environments.

5. Apply different application development methodologies like OOAD.

6. Evaluate software quality and productivity.

BCA S310:
Knowledge Management

After Completion of this course, the students will be able to:

1. Remember different knowledge management concepts.

2. Create an understanding of data mining and knowledge discovery.

3. Understand the use of one of the approaches of MIS i.e. Executive information system for developing the strategic information in an organization.

4. Evaluate different approaches of MIS and take business decisions for different organizations.

5. Analyze the relationship between information, tacit knowledge, explicit knowledge and organizational knowledge.

6. Apply different data mining techniques which are extremely useful in detecting and predicting terrorism.