B.C.A PROGRAMME

PROGRAM OUTCOMES: BCA PROGRAMME	
PO.01:	To produce employable IT workforce, that will have sound knowledge of IT and business fundamentals can be applied to develop and customize solutions for Small and Medium Enterprises (SME)
PO.02:	To develop skilled manpower in the various areas of information technology like: Data base management, Software Development, Computer Languages, Software engineering, Web based applications etc.
PO.03:	Understand the fundamental concepts of Computers, Business environment and IT Applications in Business competent technical writing skills so as to enable the graduate to communicate business ideas to senior management and general public.
PO.04:	Successfully understand & analyses technical data to reach actionable conclusions, including technological solutions to the business.
PO.05:	Learn technologies & programming languages, so the business problems could be addressed.
PO.06:	An ability to analyses a problem, and identify and define the computing requirements appropriate to its solution. To identify and sharpen their IT/ programming skills.

PROGRAM SPECIFIC OUTCOMES: BCA PROGRAMME

PSO.01:	Able to apply the knowledge gained during the course of the program from all computer science courses in particular to identify, formulate and solve real life complex problems faced in the context of cultural, societal, and environmental situations.
PSO.02:	An ability to use current techniques, skills, and tools necessary for computing practice and provide socially acceptable technical solutions to complex computer science problems with the application of modern and appropriate techniques for sustainable development relevant to professional practice.
PSO.03:	Able to apply the knowledge of ethical and management principles required to work in a team as well as to lead a team.
PSO.04:	An ability to apply design and development principles in the construction of software systems of varying to and write effective project reports in multidisciplinary environment in the context of changing technologies.

COURSE OUTCOMES			
Sl. No.	**Course Code**	**Course Name**	**Course Outcomes**
1	A0211	C Programming. I Sem	CO-1: Understand the basic concepts of logic building; learn usage of tools like flowchart and algorithm. CO-2: Understand the fundamentals of C programming. CO-3: Choose the loops and decision-making statements to solve the problem. CO-4: Implement different Operations on arrays CO-5: Use functions to solve the given problem. CO-6: Understand the concept of structures and unions.
2	A0221	Computer Fundamentals. I Sem	CO-1: To understand the fundamentals of Computer architecture. CO-2: Able to identify the types of the software and hardware. CO-3: Students will be able to know concept of networking. CO-4: Will be able to get idea about what is program and program paradigms. CO-5: Will be able to learn about different generations of computers.
3	B0211	Data Structure Using C. II Sem	CO-1: Able to understand basics of memory management in c. CO-2: Able to understand basic concepts of linked list. CO-3: To understand the basic concepts of stack and queues through array and link list. CO-4: To understand the basic knowledge of trees and graph. CO-5: Able to understand the concepts of sorting and searching techniques.
4	C211	Discrete Mathematical Structures. III Sem	CO-1: Understand the concepts of relations and functions and terminology. CO-2: Understand the concept Algebraic Structures and Propositional Logic and their application in computer science. CO-3: Understand the concept of Sets: Ordered set, Posets and Properties of sets. CO-4: Understand the concepts of Matrices and Mathematical Induction. CO-5: To understand the concepts of Relations and functions and applications in Computer Science.

5	C221	Programming in Java. III Sem	CO-1: Identify classes, objects, members of a class and relationships among them needed for a specific problem CO-2: Gain knowledge about basic Java language syntax and semantics to write Java programs and use concepts such as variables, conditional and iterative execution methods etc. CO-3: Understand the fundamentals of object-oriented programming in Java, including defining classes, objects, invoking methods etc. and exception handling mechanisms. CO-4: Understand the principles of inheritance, packages and interfaces. CO-5: Demonstrate the concepts of polymorphism and inheritance. CO-6: Explain the benefits of JAVA's Exceptional handling mechanism compared to other Programming Language.
6	C231	Operating systems. III Sem	CO-1: To learn the fundamentals of Operating Systems. CO-2: To demonstrate knowledge of process control. CO-3: To implement the CPU Scheduling algorithms. CO-4: To demonstrate Process Synchronization, Inter-Process communication. CO-5: Create an understanding of Memory management concepts. CO-6: Familiar with the Page Replacement techniques. CO-7: File Implementation Systems Disk Structure and Implementation. CO-8: Disk Scheduling Algorithms for Disk Management.
7	C241	Data Communication. III Sem	CO-1: Describe the components of a data communications system. CO-2: Identify key considerations in selecting various transmission med in networks CO-3: Explain the role of line codes in a data communications network CO-4: Explain the role of digital communications devices in a data communication network. CO-5: Describe the various types of signals and their features. CO-6: Identify features of various data transmission protocols. CO-7: Describe the features and functions of multiplexing and modulation CO-8: Describe the various error detection and correction schemes.

8	D211	Design and Analysis of Algorithm. IV Sem	CO-1: Students will be able to write pseudo code for algorithms and to analyse time and space complexity of the algorithms. CO-2: Students will be able to choose appropriate design techniques for solving problems. CO-3: Understand the various approaches used to solve the problems. CO-4: Students gain knowledge of basic traversal and search techniques for trees and graphs. CO-5: Compare between different data structures and choosing appropriate data structure for design situations.
9	D221	Computer Networks. IV Sem	CO-1: To understand the basic concepts of data communication and computer network system. CO-2: To develop an understanding of modern network architecture. CO-3: To familiarize with the basic terminology of computer networking. CO-4: To understand different functionalities of a network system, with the concept of layered approach using of OSI model and TCP/IP. CO-5: To analyse the functions of each layer and gain knowledge in Different applications that use computer networks CO-6: To understand Framing, Error detection, Error correction, Flow control, Routing algorithms used in the networking system
10	D0451	Database Management systems. IV Sem.	CO-1: Master the basic concepts and appreciate the applications of database systems. CO-2: Master the basics of SQL and construct queries using SQL CO-3: Be familiar with a commercial relational database system (Oracle) by writing SQL using the system. CO-4: Be familiar with the relational database theory, and be able to write relational algebra expressions for queries. CO-5: Mater sound design principles for logical design of databases, including the E-R method and normalization approach. CO-6: Be familiar with the basic issues of transaction processing and concurrency control
11	E211	Software Engineering. V Sem	CO-1: To understand about designing model and practical implementation. CO-2: To take decision of project planning on the basis of cost evaluation. CO-:3 To understand risk identification and management. CO-4: To use various tools for software design development. CO-5: To understand importance of quality of software.

12	E221	SPT. V Sem	CO-1: To study the principles of software testing. CO-2: To understand different types testing approaches. CO-3: Students learn how to plan a test project, design test cases, manage defects in the software, and generate a test case report. CO-4: To understand the common people issues, apply software testing skills and technique of software tools and methodology to solve client project issues. CO-5: Software testing provides career path for the test professional.
13	E231	Cyber Security. V Sem	CO-1: Understand the different theoretical and cross-disciplinary approaches. CO-2: Understand the structure, mechanics and evolution of the Internet in the context of emerging crime threats and technological and other trends in cyberspace. CO-3: Understand how to Distinguish and classify the forms of cybercriminal activity. CO-4: To be able to Analyse and assess the impact of cybercrime on government, businesses, individuals and society. CO-5: Understand to Investigate assumptions about the behaviour and role of offenders and victims in cyberspace, and use basic web-tools to explore behaviour on-line.
14	E241	Programming with Python. V Sem	CO-1. To understand the basic concepts of Python and OOP Paradigm. CO-2. Use of different types of objects. CO-3. Design and implement GUI application and how to handle exceptions and files. CO-4. To be able to text mining and analysis uses regular expression. CO-5. Make database connectivity in python programming language.
15	E251	.NET Framework using C#. V Sem	CO-1: Define the .NET framework (CLR, CTS, CLS etc.,) and its components CO-2: Evaluates the previous state of affairs and fundamentals of C# language. CO-3: Apply the knowledge of OOPs concepts in C# to solve real-time problems. CO-4: Demonstrate the concepts of OOPs, exceptions, interfaces, delegates and events in C# CO-5: NET platform introduction. Precompiled code. Platform independency, MSIL, safe code.
16	F211	Cloud Computing VI Sem	CO-1: Understand the fundamental principles of distributed computing. CO-2: To understand different services of cloud and infrastructure. CO-3: Understand the importance of virtualization in distributed computing and how this has enabled the development of Cloud Computing. CO-4: Analyse the performance of Cloud Computing. CO-5: Understand the concept of Cloud Security. CO-6: Learn the Concept of Cloud Infrastructure Model.

17	F221	Web Programming VI Sem	CO-1: Students are able to develop a dynamic webpage by the use of java script and DHTML. CO-2: Students will be able to write a well-formed / valid XML document. CO-3: Students will be able to develop web application using ASP.NET Tool. CO-4: Students will be able to write a server-side java application called Servlet to catch form data sent from client, process it and store it on database. CO-5: Students will be able to write a server-side PHP application called JSP to catch form data sent from client and store it on database.