DEPARTMENT OF COMPUTER SCIENCE

SL. NO.	PAPER TITLE	PAPER CODE	COURSE OBJECTIVES	COURSE OUTCOMES
1	**PROGRAMMING USING C**	**CORE-I**	The course objective is to • to learn basics of C programming language. • To be able to develop logics to create programs/ applications in C.	The students will be able to • develop logics to create programs/ applications on C. • know about details of array and pointers • know about types of storage class • know about details of initialization structure, nested structure etc.
2	**DIGITAL LOGIC**	**CORE-II**	The course objective is • To understand different methods used for the simplification of Boolean functions and binary arithmetic. • To design and implement combinational circuits, synchronous & asynchronous sequential circuits. • To study in detail about Semiconductor Memory Systems	The students will be able to • Know about decimal and binary system , Boolean algebra. • Know about flip-flops, gated latches,PAL, CPLDS, FBGA. • Know about details of memory systems(semiconductor RAM memories, static memories)
3	**PROGRAMMING USING C++**	**CORE-III**	• To know about the Object Oriented Programming concepts. • To learn basics of C++ programming language. • To be able to develop	The students will be able to know about • the object oriented programming concepts. • Details of member functions • Details of inheritance • Details of C++ streams and details of

			logics to create programs/ applications in C++.	computer files
4	DATA STRUCTURES	CORE-IV	The course objective is to • learn how the choice of data structures impacts the performance of programs • study specific data structures such as arrays, linear lists, stacks, queues, hash tables, binary trees, binary search trees, heaps and AVL trees. • learn efficient searching and sorting techniques	The students will be able to learn • efficient searching and sorting techniques. • Basic terminologies of data structure. • Details of linked lists, • Details of stack and queues. • Details of tree and sorting
5	JAVA PROGRAMMING	CORE-V	The course objective is • to learn the fundamentals of Object Oriented Programming in Java environment • To learn the use of Java language and the Java Virtual Machine. • To write simple Java programming applications.	The students will be able to learn the • use of JAVA language and JAVA virtual machine. • History, architecture and features of JAVA • Details of creating and using arrays. • Details of exception handling, threading , networking and database connectivity.
6	DATABASE SYSTEMS	CORE-VI	The course objective is • To learn the fundamental elements	The students will be able to • learn the basic concept of relational database management systems.

			of database system. • To learn the basic concepts of relational database management systems. • To learn various SQL commands.	• Know about details of database system • Database design theory and normalization. • Details of relational data model and SQL
7	**DISCRETE MATHEMATICAL STRUCTURES**	**CORE-VII**	The course objective is to learn the mathematical foundations for Computer Science, Topics covered essential for understanding various courses	The students will be able to learn the mathematical foundation for computer science.
8	**OPERATING SYSTEMS**	**CORE-VIII**	The course objective is • to understand Operating system structure and services. • To understand the concept of a Process, memory, storage and I/O management.	The students will be able to understand operating system, structure and service.
9	**COMPUTER NETWORKS**	**CORE-IX**	The course objective is • To learn how do computers and terminals actually communicate with each other. • To understand the parts of a communication network and how they work together.	The students will be able to understand the parts of communication network and how they work together.
10	**COMPUTER GRAPHICS**	**CORE-X**	The course objective is to be able to learn the core concepts	The students will be able to create effective

			of Computer Graphics. • To be able to create effective programs for solving graphics problems.	programs for solving graphic problems.
11	WEB TECHNOLOGY	CORE-XI	The course objective is to learn the fundamentals of web designing. • To design and develop standard and interactive web pages. • To learn some popular web scripting languages.	The students will be able to design and develop standard and interactive web pages.
12	SOFTWARE ENGINEERING	CORE-XII	The course objective is to learn the way of developing software with high quality and the relevant techniques. • To introduce software engineering principles for industry standard. • To focus on Project management domain and Software risks management.	The students will be able to learn the way of developing software with high quality and relevant techniques.
13	NUMERICAL TECHNIQUES	DSE-I	The course objective is to learn various numerical techniques. • To be able to implement different numerical techniques using programming language.	The students will be able to learn various numerical techniques.
14	UNIX SHELL PROGRAMMING	DSE-II	The course objective is to learn the basics of UNIX OS, UNIX commands and File system. • To familiarize students with the Linux environment. • To learn fundamentals of shell scripting and shell programming. • To be able to write simple programs	The students will be able to learn the basic of UNIX command and file system.

			using UNIX.	
15	**ARTIFICIAL INTELLIGENCE**	**CORE-XIII**	The course objective is to learn the basic concepts of AI principles and approaches. • To develop the basic understanding of the building blocks of AI.	The students will be able to learn the basic concepts of AI principles and approaches.
16	**ALGORITHM DESIGN TECHNIQUES**	**CORE-XIV**	The course objective is to be able to learn design principles and concepts of algorithms. • To have a mathematical foundation in analysis of algorithm	The students will be able to learn design principles and concept of algorithms.
17	**DATA SCIENCE**	**DSE-III**	The course objective is to learn emerging issues related to various fields of data science. • To understand the underlying principles of data science, exploring data analysis. 32 • To learn the basics of R Programming.	The students will be able to learn various issues related to different fields of data science.

HEAD OF THE DEPARTMENT

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