

# CBCS SCHEME

BESCK104E



First Semester B.E/B.Tech. Degree Examination, Dec.2025/Jan.2026

## Introduction to C Programming

Max. Marks:100

- Note:** 1. Answer any FIVE full questions, choosing ONE full question from each module.  
 2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
1	a.	What is a Computer? With a neat diagram of computer architecture explain its components.	8	L2	CO1
	b.	Explain the different types of computers.	6	L2	CO1
	c.	How primary memory is different from secondary memory? Explain.	6	L2	CO1
<b>OR</b>					
2	a.	Write the basic structure of 'C' program. Explain each section briefly with suitable example.	8	L2	CO2
	b.	Explain the basic data types in 'C' with their keyword, size and range of values.	6	L2	CO2
	c.	With the help of example and syntax, explain formatted input/output functions of 'C' language.	6	L2	CO2
<b>Module – 2</b>					
3	a.	Develop a 'C' program to compute the roots of a quadratic equation by accepting the co-efficients and print the appropriate message along with the values.	8	L3	CO2
	b.	Define branching statements. Explain any two branching statements with syntax and suitable example.	6	L2	CO2
	c.	Define Operator. Explain any five operators with example.	6	L2	CO2
<b>OR</b>					
4	a.	Differentiate between while, do-while and for loops. Explain with syntax and examples.	8	L2	CO2
	b.	Demonstrate the working of break and continue statement with a suitable example.	6	L2	CO2
	c.	Develop a 'C' program to generate Fibonacci series 0, 1, 1, 2, 3, 5, 8, 13, - - - .	6	L3	CO2

## Module – 3

5	a.	What is an Array? How arrays are declared and initialized with example.	8	L2	CO3
	b.	Develop a 'C' function that can be called to find largest element of an integer array of size 'n'.	6	L3	CO3
	c.	Develop a 'C' program to search an element using binary search technique.	6	L3	CO3

OR

6	a.	Develop a 'C' program to find transpose of a matrix.	10	L3	CO3
	b.	Develop a 'C' program to multiply two-matrices by assuming their multiplication compatibility.	10	L3	CO3

## Module – 4

7	a.	Define String. Explain any 4 string manipulation function with suitable example.	10	L2	CO3
	b.	Develop a 'C' program to concatenate 2 strings without using built-in function.	10	L3	CO3

OR

8	a.	What is a function? Explain different types of function for handling strings.	8	L2	CO4
	b.	Differentiate between call by value and call by reference using suitable examples.	6	L2	CO4
	c.	What is Recursion? Develop 'a' 'C' program to compute factorial of a given number using recursion.	6	L3	CO4

## Module – 5

9	a.	How structure can be defined within a structure (Nested structure)? Explain with example.	6	L2	CO5
	b.	What is Union data structure? Explain the difference between structure and union.	6	L2	CO5
	c.	Implement structure to read, write and compute average-marks of the students, list the students scoring above and below the average marks for a class of N students.	8	L3	CO5

OR

10	a.	What is a Pointer? How to declare and initialize pointer? Discuss pointer arithmetic with suitable 'C' code.	10	L2	CO5
	b.	Develop a 'C' program to find sum, mean and standard deviation of array elements using pointers.	10	L3	CO5

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