

First/Second Semester B.E./B.Tech. Degree Examination, June/July 2026

Principles of Programming using C

Time: 3 hrs.

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
Q.1	a.	Explain with a neat diagram, the computer model.	12	L1	CO2
	b.	Explain input and output devices in C.	8	L1	CO2
OR					
Q.2	a.	Explain the structure of a C program.	12	L1	CO2
	b.	Explain the basic datatypes in C with examples.	8	L1	CO2
Module – 2					
Q.3	a.	List and explain conditional branching statements in C.	10	L1	CO2
	b.	Write a C program to find if the given number is palindrome or not.	10	L3	CO2
OR					
Q.4	a.	Explain type casting with examples.	10	L1	CO2
	b.	Write a C program to simulate a simple calculator.	10	L3	CO2
Module – 3					
Q.5	a.	What is an array? Illustrate the definition and initialization of a 2 – dimensional array.	10	L2	CO3
	b.	What are the advantages of using functions? Illustrate the passing of parameters.	10	L2	CO3
OR					
Q.6	a.	Explain recursive functions with example.	8	L1	CO3
	b.	Write a C program to perform addition of 2-dimensional matrix A and B, each of order 3×3.	12	L3	CO3
Module – 4					
Q.7	a.	Illustrate the concept of array of strings with an example program.	8	L2	CO4
	b.	Write a C program to find the length of a given string without using any built-in functions.	12	L3	CO3

OR

Q.8	a.	Illustrate passing arguments to functions using pointers.	10	L2	CO4
	b.	Write a C program using pointers to compute the sum, mean and standard deviation of all elements stored in an array of 'n' real numbers.	10	L3	CO4
Module – 5					
Q.9	a.	Compare and contrast structures and unions. Illustrate the usage of structure and union with one example.	10	L2	CO4
	b.	Write a C program to illustrate the usage of type def with structures. Also list the output clearly.	10	L2	CO4
OR					
Q.10	a.	What are files? List and explain any 4 file operations in C.	8	L2	CO2
	b.	Write a C program to print the name, USN, Subject and marks of n students using structure.	12	L3	CO4
