



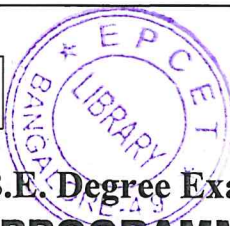
**EAST  
POINT**

**COLLEGE OF ENGINEERING &  
TECHNOLOGY**

An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi

USN

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**EPPPS103/EPPPS203**

**First/Second Semester B.E. Degree Examination, July 2025**  
**PRINCIPLES OF PROGRAMMING USING C**

TIME:3 hrs.

Max.Marks:100

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

		Module-1	M	L	C
Q.1	a	Describe the structure of a C program.	6	L2	CO1
	b	Draw a flowchart to find the largest of three numbers. Explain the logic used.	7	L2	CO1
	c	Write an algorithm and pseudo code to calculate the factorial of a given number.	7	L2	CO1
OR					
Q.2	a	List and explain the different types of files used in a C program.	6	L2	CO1
	b	Explain the steps involved in compiling and executing a C program.	7	L2	CO1
	c	Narrate about Input / Output statements in C.	7	L2	CO1
Module-2					
Q.3	a	Develop a C program to compute the area of a rectangle using appropriate operators and display the result.	6	L3	CO2
	b	Apply the typecasting in a C program to convert the sum of two integers into float and display the result with two decimal places.	7	L3	CO2
	c	Write a program that reads a character and checks whether it is an uppercase letter, lowercase letter, digit or special symbol using conditional branching.	7	L3	CO2
OR					
Q.4	a	Apply for loop in a C program to generate the multiplication table of a number entered by the user.	6	L3	CO2
	b	Create a program using nested loops to print a pyramid pattern of stars up to 'n' rows.	7	L3	CO2
	c	Use the goto statement in a program to handle input validation: if the user enters a negative number and redirect them to re-enter the value.	7	L3	CO2
Module-3					
Q.5	a	Describe the taxonomy of functions in C with suitable examples.	6	L2	CO3
	b	Differentiate between function declaration, function definition and function call with examples.	7	L3	CO3

	c	Explain the different types of variable scopes in C with examples.	7	L2	CO3
<b>OR</b>					
Q.6	a	What is an array? Explain how arrays are declared and initialized in C with examples.	6	L2	CO3
	b	Explain how arrays are passed to functions in C with example.	7	L2	CO3
	c	Describe operations performed on two-dimensional arrays.	7	L2	CO3
<b>Module-4</b>					
Q.7	a	Describe the taxonomy of strings in C.	6	L2	CO4
	b	What are the common operations that can be performed on strings in C? Illustrate with examples	7	L2	CO4
	c	Write a C program that adds two strings .	7	L2	CO4
<b>OR</b>					
Q.8	a	What is pointer? Discuss the process of declaring a pointer variable in C with an example program.	6	L3	CO4
	b	Explain the malloc(), calloc(), realloc() and free() functions in C.	7	L2	CO4
	c	Explain how pointers are used with one-dimensional arrays. Give an example where a pointer is used to traverse an array.	7	L3	CO4
<b>Module-5</b>					
Q.9	a	Compare structure and union with examples.	6	L3	CO5
	b	Create a structure to store the details of a student such as name, roll number and marks. Create an array of structures to store the details of 5 students and print their information.	7	L3	CO5
	c	Develop a program to demonstrate the use of enumerated data types by defining an enum for the months of the year and displaying the month's name based on user input.	7	L3	CO5
<b>OR</b>					
Q.10	a	Design a program that reads from a file and detects the end of the file using EOF. The program should print the contents of the file line by line.	6	L3	CO5
	b	Write a C program that reads a text file and counts the number of lines, words and characters.	7	L3	CO5
	c	Design a C program that reads the five student marks from a file and calculates the sum and average.	7	L3	CO5

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