



PRESIDENCY UNIVERSITY

BENGALURU

End - Term Examinations – May / June 2026

Date: 25- 05- 2026

Time: 09:30am – 12:30pm

School: SOCSE	Program: B-Tech	
Course Code: CSE2200	Course Name: Problem solving using C	
Semester: II	Max Marks: 100	Weightage: 50%

CO - Levels	C01	C02	C03	C04	C05	C06
Marks	7	7	14	24	24	24

Instructions:

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 2marks.

10Q x 2M=20M

1.	Define algorithm.	2 Marks	L1	C01
2.	What is a loop? Why is it used in C programming?	2 Marks	L2	C02
3.	What is a two-dimensional array?	2 Marks	L1	C03
4.	Define a string in C with an example.	2 Marks	L1	C03
5.	What is a function?	2 Marks	L1	C04
6.	Define a pointer.	2 Marks	L1	C04
7.	What is an array of structures?	2 Marks	L2	C05
8.	What is a union in C language?	2 Marks	L1	C05
9.	What is file opening mode?	2 Marks	L1	C06
10.	Write syntax of fwrite() function.	2 Marks	L1	C06

Part B

Answer the Questions.

Total Marks 80M

11.	a.	Explain the steps involved in program development life cycle.	5 Marks	L2	C01
	b.	Explain relational operators with examples.	5 Marks	L2	C02
	c.	Write a C program to check whether a number is palindrome or not using a loop.	10 Marks	L3	C03
Or					
12.	a.	Explain compilation and execution process in C.	5 Marks	L2	C01
	b.	Explain nested if statements with example.	5 Marks	L2	C02
	c.	Write a C program to find biggest of three numbers using nested if-else statement.	10 Marks	L3	C03

13.	a.	Explain the advantages of using functions in C.	5 Marks	L2	C04
	b.	Explain call by value with example.	5 Marks	L2	C04
	c.	Write a C program to find the average of three numbers using a function.	10 Marks	L2	C04
Or					
14.	a.	Explain function prototype and its importance.	5 Marks	L2	C04
	b.	Explain pointers and their role in memory management.	5 Marks	L2	C04
	c.	Write a C program to count the occurrences of a given key element in a dynamic array using pointers. Display the total number of occurrences of the key element.	10 Marks	L2	C04

15.	a.	Explain the concept of array within structure.	5 Marks	L2	C05
	b.	Examine and compare the characteristics of arrays and structures in C.	5 Marks	L4	C05
	c.	Write a C program to store the details of two students, including roll number, name, and marks in three courses, using arrays within a structure. Calculate the total marks for each student and display all the student details.	10 Marks	L3	C05
Or					
16.	a.	Explain structure within structure (nested structures) with example.	5 Marks	L2	C05

	b.	Analyze the differences between a union and a structure in C, and determine the situations in which a union is preferred over a structure.	5 Marks	L4	C05
	c.	Write a C program to store and display book details (title, author, price) using structure. Declare 3 structure variables.	10 Marks	L3	C05

17.	a.	Explain steps involved in file handling in C.	5 Marks	L2	C06
	b.	Explain formatted file I/O functions fprintf() and fscanf().	5 Marks	L2	C06
	c.	Develop a C program to store student details (name, roll number, and CGPA) in a file and retrieve the contents using fprintf() and fscanf() functions.	10 Marks	L3	C06

Or

18.	a.	Explain what a file is in C programming with syntax and example.	5 Marks	L2	C06
	b.	Explain the getc() and putc() functions in C programming	5 Marks	L2	C06
	c.	Develop a C program to write characters to a file using putc() and read the file content using getc().	10 Marks	L3	C06