QP CODE: D2BCS2501	**(Pages: 2)**	**Reg. No**	**: .....**
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SECOND SEMESTER FYUGP EXAMINATION, APRIL 2026

(Regular/Improvement/Supplementary)

Discipline Specific Core (DSC) Courses - Major

CSC2CJ101/BCA2CJ101 : Fundamentals of Programming (C language)

(Credits: 4)

Time: 2 Hours **Maximum Marks: 70**

Section A

Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)

1.	Differentiate between a keyword and an identifier in C.	BL3	CO1
2.	Explain the importance of C as a programming language.	BL2	CO1
3.	What is the purpose of a switch statement in C?	BL1	CO2
4.	Write and explain the syntax of a for loop.	BL2	CO2
5.	What are the different types of functions in C? Provide an example for each.	BL1	CO1
6.	How are elements accessed in a two-dimensional array? Illustrate with an example.	BL2	CO4
7.	Explain how the strings are stored and manipulated in C?	BL2	CO4
8.	Explain the advantages of using arrays for data storage in C programs.	BL2	CO4
9.	What is a storage class in C? Name the four types of storage classes.	BL1	CO1, CO2, CO4, CO6
10.	Define Union in C?How do you declare a union in C.	BL1	CO1

Section B

Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)

11.	What are escape sequences in C? Using a suitable program, demonstrate how the usage of escape sequences affect the output of a program.	BL3	CO1, CO6

(PTO)

12.	Write a C program that uses mathematical functions like pow(), sqrt(), and fabs() to solve simple equations.	BL3	CO1, CO6
13.	How does the continue statement affect loop execution? Write a C program to print only even numbers from 1 to 20 using continue.	BL3	CO1, CO2
14.	Illustrate how strings can be passed as parameters to functions in C with an example program.	BL3	CO1, CO3
15.	Explain how recursion works with the help of a factorial program in C.	BL2	CO1, CO3
16.	Write a C program to swap two numbers using pointers. Explain the logic of the program.	BL3	CO1, CO3
17.	Write a program to demonstrate the concept of passing an array to a function using pointers.	BL3	CO1, CO2, CO3, CO4, CO5, CO6
18.	How do pointers help in dynamic memory allocation? Explain with an example.	BL2	CO1, CO5
	Section C		
	Answer any one question. Each carries 10 marks (1 x 10 = 10 Marks)		
19.	Implement a C program to compute the electricity bill for a household based on a tiered pricing structure, utilizing a nested if-else construct to apply the following rates: - Units consumed up to 100: Rs. 1 per unit - Units consumed between 101 and 300: Rs. 2 per unit - Units consumed beyond 300: Rs. 3 per unit Provide a detailed explanation of the program logic.	BL3	CO1, CO2
20.	Describe how pointers and arrays are related. Write a program to reverse an array of integers using pointer arithmetic, and explain the logic step by step.	BL3	CO1, CO4, CO5, CO6
	CO : Course Outcome		
	BL : Bloom's Taxonomy Levels (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)		