

25U272

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Name :

Reg. No :

SECOND SEMESTER UG DEGREE EXAMINATION, APRIL 2026

(FYUGP)

(Regular/Supplementary/Improvement)

CC24UBCA2CJ101 - FUNDAMENTALS OF PROGRAMMING (C LANGUAGE)

(Computer Application - Major Course)

(2024 Admission onwards)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Examine the role of header files in a C program and explain their impact on program structure. [Level:2] [CO1]
2. Describe different storage classes in C. [Level:2] [CO1]
3. Implement a C program to find the factorial of a given number using function. [Level:3] [CO3]
4. Explain the difference between for, while, and do-while loops. [Level:3] [CO2]
5. What is a nested if statement? Explain with an example. [Level:3] [CO2]
6. Provide why are functions used in C programming. [Level:3] [CO3]
7. Explain how you can dynamically allocate memory for a one-dimensional array. [Level:3] [CO3]
8. Describe a structure in C? How is it defined and used? Provide a simple example. [Level:3] [CO4]
9. Explain the concept of pointer increment. How does it depend on the data type being pointed to? [Level:3] [CO4]
10. Briefly describe the purpose of the malloc and free functions in memory management. [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Describe the role of keywords and identifiers in C programming with suitable examples. [Level:2] [CO1]
12. Describe the use of relational operators and logical operators in C. [Level:2] [CO1]

13. Using a switch statement, implement a program to perform basic arithmetic operations (addition, subtraction, multiplication, division) based on the operator provided (+, -, *, /). [Level:3] [CO2]
14. Demonstrate a dynamic array? How it is created? Give a typical example of use of dynamic array. [Level:3] [CO3]
15. Describe recursion in c. Explain with example. [Level:3] [CO3]
16. Describe what is string? Explain any five library functions of string. [Level:3] [CO3]
17. Differentiate between local and global variables in terms of scope and visibility? Illustrate with examples. [Level:3] [CO4]
18. Explain the difference between using a structure variable and a pointer to a structure when passing it to a function. Provide examples. [Level:3] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

Answer any **one** question. The question carries 10 marks.

19. Demonstrate what are various jumping statements? With example. [Level:3] []
20. Explain function, what are different types of function? Explain function with no argument and no return type with example. [Level:3] []

(1 × 10 = 10 Marks)
