

24U277

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Name :

Reg. No :

SECOND SEMESTER UG DEGREE EXAMINATION, APRIL 2025

(FYUGP)

CC24UBCA2CJ101 - FUNDAMENTALS OF PROGRAMMING (C LANGUAGE)

(B.C.A. - Major Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

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

1. Summarise keywords and identifiers in C. Provide examples to support your analysis [Level:2] [CO1]
2. Detect the different classes of data type with an example for each. [Level:2] [CO1]
3. Compare and contrast the functionality of printf() and scanf() in C [Level:2] [CO1]
4. Describe how does the break statement affect loop execution? [Level:3] [CO2]
5. Explain how can we use conditional operator? [Level:3] [CO2]
6. Explain how you can dynamically allocate memory for a two-dimensional array [Level:3] [CO3]
7. Demonstrate and explain the two types of functions in C? with suitable example [Level:3] [CO3]
8. Explain how can you use a pointer to access elements of an array? Illustrate with a simple code snippet. [Level:3] [CO4]
9. Discuss storage classes in C programming. What do they determine for a variable? [Level:3] [CO4]
10. Describe how are union members accessed? Why is the memory shared between the members of a union? [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

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

11. Explain the structure of C program. [Level:2] [CO1]
12. Explain in detail about pass by values and pass by reference. Explain with sample program. [Level:3] [CO3]
13. Explain why arrays in C always start with an index of 0. [Level:3] [CO3]

14. Explain character array ? Write a program to find vowels from a line of text. Not use any library functions. [Level:3] [CO2]
15. implement different categories of function with suitable examples. [Level:3] [CO3]
16. Describe recursion in c. Explain with example. [Level:3] [CO3]
17. Describe null pointers, and why are they important in C programming? How are they initialized and used? [Level:3] [CO4]
18. Explain how pointers can be used to return multiple values from a function. Provide an example with code. [Level:3] [CO4]

(Ceiling: 36 Marks)

Part C (Essay questions)

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

19. Describe the importance of decision-making statements in C. How do if-else and switch statements help in controlling program flow? Provide examples to support your explanation. [Level:3] [CO2]
20. Describe what is 'String'? how can we declare and initialize a string variable? Explain strlen(), strcpy(), strcat(), strcmp(), strstr() [Level:3] [CO3]

(1 × 10 = 10 Marks)
