667423 **DCCA112**

Reg. No.

I Semester B.C.A. Degree Examination, December/January - 2025/26
COMPUTER APPLICATION
Problem Solving Techniques
(SEP Scheme Freshers & Repeaters)

Time : 3 Hours **Maximum Marks : 80**

Instructions to Candidates:

Answer All the Parts.

PART - A

I. Answer any Ten questions. Each question carries 2 marks. **(10×2=20)**

1. What is an Algorithm?
2. What is Token in C Programming?
3. List the Asymtotic Notations.
4. What are Local and Global Variables?
5. Write the difference between pre and post increment operator.
6. What is the difference between getchar ( ) and gets ( ) function?
7. Write the difference between While and Do-while loop.
8. What is an array?
9. Explain break and continue.
10. Write any four mathematical functions available in C.
11. What is pattern searching in text processing?
12. Mention the difference between Structure and Union.

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PART - B

II. Answer any Six questions. Each question carries 5 marks. **(6×5=30)**

13. Explain the general structure of C programs with example.

14. Write a C program to find GCD of two numbers.

15. What are arguments? Explain actual and formal arguments with example.

16. Write a C program to search an element using Linear Search.

17. Explain basic C datatypes with significant of each data type.

18. Write a program to find factorial of given number.

19. Explain for Looping structure with example.

20. Explain the features of algorithm.

PART - C

III. Answer any Three questions. Each question carries 10 marks. **(3×10=30)**

21. Explain the different types of Operators in C.

22. a) Write a C program to find largest among three numbers. **(5)**

    b) What is Pointer? How is it initialized? **(5)**

23. a) What is String? Explain how strings are declared and initialized. **(6)**

    b) Explain any 2 string functions with example. **(4)**

24. Write a C program to find sum of two matrices.

25. Explain bubble sort algorithm. Sort the following elements using bubble sort technique. 10, 8, 20, 15, 17, 2.