798027 **DCCA102**

Reg. No. | | | | | | | | |

I Semester B.C.A. Degree Examination, December/January - 2025/26

COMPUTER APPLICATIONS

Problem Solving Techniques

(NEP Scheme 2021 Onwards Repeaters)

Paper - CA-C2 T

Time : 2½ Hours **Maximum Marks : 60**

Instructions to Candidates:

Answer all the parts.

PART - A

I. Answer any Four questions. Each question carries 2 marks. **(4×2=8)**

1. What is an Algorithm? Mention any one advantage.
2. What is Pattern Searching?
3. What is Function prototype?
4. Define Array. How can an array be initialized?
5. What is the difference between Syntax Error and logical error?
6. Define structure and Union.

PART - B

II. Answer any Four questions. Each question carries 5 marks. **(4×5=20)**

7. Write the characteristics of algorithm.
8. Differentiate between while and do-while with example.
9. Explain Switch statement in C with general syntax.
10. Write a C program to find factorial of a number.
11. Perform the Bubble sort operation on the following elements 25, 7, 14, 57, 11 to arrange them in ascending order.
12. Write an algorithm to perform Binary Search.

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PART - C

III. Answer any Four questions. Each question carries 8 marks. **(4×8=32)**

13. Explain asymptotic notations.
14. Explain formatted and unformatted I/O functions with example.
15. Write a C program to perform multiplication of two matrices.
16. Explain string handling functions in C with examples.
17. Explain selection sort and write an algorithm with example.
18. Explain the different types of control structures with example.
