DCCA102

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

I Semester B.C.A. Degree Examination, April - 2023

COMPUTER APPLICATIONS

Problem Solving Techniques

(NEP Scheme 2021-22 Onwards)

Paper : CA-C2T

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

Instructions to Candidates:

Answer any **Four** questions from each part.

PART - A

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

1. Mention two methods for analysing the performance of an algorithm.
2. Define variable and constant. Give one example for each.
3. Define Array with an example.
4. Write an algorithm to find the square root of a number.
5. List any two differences between linear search and binary search algorithm.
6. What is two way merging. Explain with an example.

PART - B

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

7. Define an algorithm. Mention any 4 characteristics of an algorithm.
8. Explain different forms of If statement with syntax and example.
9. What is a pointer? Explain with an example.
10. Write a program to find GCD of 2 integers.
11. Write an algorithm, to find maximum number in an array of n elements.
12. Write a program to search an element using linear search.

|P.T.O.

PART - C

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

13. Explain various operators available in C.
14. Explain various forms of looping structures available in C.
15. Explain various operations performed on strings with example for each.
16. Write a program to find the multiplication of two matrices.
17. Explain insertion sort with example.
18. Write Bubble sort algorithm to sort the given set of elements. Trace the Bubble sort algorithm for the following elements, 28, 20,1,30, 8, 15, 05.
