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

COMPUTER SCIENCE

Problem Solving Techniques

(NEP Scheme Repeaters)

Time : 2½ Hours

Instructions to Candidates:

Answer All Sections.



Maximum Marks : 60

SECTION - A

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

1. Mention any two characteristics of an Algorithm.
2. Define variable and constant.
3. Define array with example.
4. Give the general syntax of if-else statement.
5. List any two difference between linear and binary search algorithm.
6. What is hash search?

SECTION - B

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

7. Write an algorithm for summation of set of number.
8. What is datatype? Explain different datatype with examples.
9. Write a program to find GCD of two integer.
10. Mention any five string library function.

[P.T.O.]



11. What is pointer? Explain with an example.

12. Explain bubble sort with example.

SECTION - C

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

13. Explain various operators available in C. (8)

14. Explain Asymptotic Notations with an example. (8)

15. Write C-program to perform multiplication of 2 matrices. (8)

16. a) Explain Formated input and output statement. (4)

b) Write an algorithm to generate the Fibonacci sequence. (4)

17. What is function? Explain categories of function. (8)

18. a) Write a note structure. (4)

b) Explain the syntax of switch-case statement with example. (4)

SECTION - B

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

1. Write an algorithm for summation of set of number.

2. What is datatype? Explain different datatype with examples.

3. Write a program to find GCD of two integer.

4. Mention any five string library function.