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I Semester B.Sc. Degree Examination, December/January - 2025/26**COMPUTER SCIENCE
Problem Solving Technique
(NEP Scheme (R))****Time : 2½ Hours****Maximum Marks : 60****Instructions to Candidates:**

Answer all the Sections.

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

1. Mention any two characteristics of an algorithm.
2. Define a variable. Give an example.
3. What is a constant? How it is declared in C.
4. Define a function.
5. Give the general syntax of if-else statement.
6. What is an array? How is it initialized?

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

7. Write an algorithm for Factorial of a number.
8. Explain the syntax of “Switch-Case” statement with an example.
9. What is data type? Explain different data types with an example.
10. Write a program to find the sum of all the digits of a given number.
11. Explain any five string library functions.
12. Write a note on Hashing Technique.

[P.T.O.]



SECTION - C

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

13. Explain various asymptotic notations with their significance. (8)
 14. Explain loop control Structures in C with a general syntax and example for each. (8)
 15. a) Explain Call by value and call by Reference. (4)
b) Define a Pointer? Give an example how to declare it. (4)
 16. Write a program for multiplication of two Matrices in 'C'. (8)
 17. a) Write an algorithm to find the maximum Element in an array of size N. (4)
b) Write a 'C' program to swap the value of two variable. (4)
 18. Write a C-program to sort n-numbers using bubble sort and trace with an example. (8)
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