

**BACHELOR OF TECHNOLOGY (CBCS - 2023)**  
**B. Tech. Sem-I Computer Science & Engineering : SUMMER : 2025**  
**SUBJECT: PROGRAMMING & PROBLEM SOLVING**

Day : Monday  
Date : 19/05/2025

**S-27611-2025**

Time : 10:00 AM-01:00 PM  
Max. Marks : 60

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Assume suitable data **WHEREVER** necessary.
- 4) Draw neat labeled diagrams **WHEREVER** necessary.
- 5) Use of IS800, IS875, Steel Table and Calculator is **allowed**.

Q.1 Explain problem solving steps. Explain each step with example. (10)

**OR**

Q.1 Explain the formatted I/O functions with example. (10)

Q.2 Describe the basic data types in 'C'. (10)

**OR**

Q.2 Explain all Looping statement used in 'C' with syntax and example. (10)

Q.3 What is array? Explain the declaration and initialization of one dimensional array with an example. (10)

**OR**

Q.3 Write a program to find sum of two 3x3 matrix. (10)

Q.4 Explain Recursion. Write a program to find factorial of a number using Recursion. (10)

**OR**

Q.4 Explain use of structure with its syntax and example. (10)

Q.5 Explain in brief about & and \* operators. (10)

**OR**

Q.5 Explain in detail how to access a one dimensional array using pointers with an example program. (10)

Q.6 Write about the basic operations of files? (10)

**OR**

Q.6 Define file and explain about the types of files with example. (10)

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