



ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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END SEMESTER EXAMINATION – NOV/DEC 2025

COMPUTER SCIENCE – I SEMESTER BSC (Repeaters)

24BSC14A/C: PROBLEM SOLVING TECHNIQUES

Time: 3 Hours

Max. Marks: 80

Instruction: *Answer should be written completely in English.*

SECTION - A

Answer any **FIVE** questions. Each question carries **TWO** marks.

(5X2=10)

1. Define an algorithm with simple example.
2. Draw a flowchart to find the multiplication of two numbers.
3. Distinguish between “=” and “==” operator.
4. What are the differences between break and continue statements?
5. Define array with example.
6. Define binary search.
7. What is sorting? Mention different sorting methods.
8. What is meant by array order reversal? Illustrate with a simple example.

SECTION - B

Answer any **SIX** questions. Each question carries **FIVE** marks.

(6X5=30)

9. Write an algorithm to find factorial of the given number.
10. Explain the characteristics of an algorithm and role of algorithm in computing.
11. Describe Switch statement in C with example.
12. List the differences between while and do-while loops.
13. Create a C program to check given number is odd or even.
14. Define Linear search. Write a C Program to perform linear search.
15. What is an array? Describe how is it useful in programming with example.
16. Create a user-defined function in C to raise a number to a large power.

SECTION – C

Answer any **FIVE** questions. Each question carries **EIGHT** marks.

(5X8=40)

17. Write an algorithm and draw a flowchart to generate the Fibonacci series.
18. Describe different types of selection statements in C with example.
19. Write a C program to demonstrate string functions. (String Length, String Copy, String Concatenate, String Comparison).



20. Describe the different types of operators in C.
21. Design a program to perform array order reversal.
22. Write a C program to search for an element using binary Search.

