

**BACHELOR OF TECHNOLOGY (CBCS - 2023)**  
**B. Tech. Sem-I INFORMATION TECHNOLOGY : SUMMER : 2025**  
**SUBJECT: STRUCTURED PROGRAMMING**

Day : Thursday  
Date : 15/05/2025

S-27659-2025

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 and labeled diagrams, Wherever necessary.

Q.1 What is Problem solving? Describe all steps in problem solving. (10)

OR

Q.1 Define Algorithm and flowchart. Write an algorithm and draw a flowchart to find largest of the number from 3 numbers. (10)

Q.2 Describe the header file and its usage in C programming? Write a program in C to find the area and perimeter of a circle. (10)

OR

Q.2 Differentiate between declaration and definition of variable? What is scope of a variable? (10)

Q.3 Write a programme to illustrate use of nested structures and control structures. (10)

OR

Q.3 Discuss various control structures with appropriate syntax. (10)

Q.4 Illustrate following: (10)

- i) Function definition
- ii) Function prototype
- iii) Types of functions
- iv) Function call
- v) Function return

OR

Q.4 Develop a C program to convert a binary number to decimal and vice-versa using functions. (10)

Q.5 Assess pointer to array and passing arrays to function using examples. (10)

OR

Q.5 Formulate user defined function to reverse and find length of strings. (10)

Q.6 Explain file handling in C. (10)

OR

Q.6 Construct a program in C to count the number of words and characters in a file. (10)

\* \* \* \* \*