

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 07

BCA (Sem.-1)
PROBLEM SOLVING TECHNIQUES

Subject Code : UGSEC2501

M.Code : 95411

Date of Examination : 10-01-2026

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

SECTION - A

1. Write briefly :

- a) Define the term Character Set.
- b) What is variable? Explain in brief.
- c) What are Symbolic Constants?
- d) What is the difference between formatted and unformatted input/output in C?
- e) What is the use of the continue statement?
- f) Define a control statement.
- g) Differentiate between Single and Multidimensional Array.
- h) What is the advantage of using functions in C?
- i) Write the syntax for declaring a pointer variable.
- j) Define a structure in C.

SECTION - B

2. What are decision Trees and Pseudo code? How are they useful in problem-solving? Explain with examples.
3. Explain in detail the control statements in C. Write suitable examples for each type of loop (while, do-while and for) and explain how they differ from each other?
4. Explain the use and working of the switch statement in C. Write a program using switch to create a simple calculator that performs addition, subtraction, multiplication and division based on the user's choice.
5. Explain string handling functions in C with examples.
6. Explain the concept of Passing arguments to function using suitable example.
7. **Write a detailed note on following :**
 - a) Passing structures to functions.
 - b) Pointers and Arrays.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.