

**Roll No.**

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**Total No. of Pages : 02**

**Total No. of Questions : 07**

**BCA (Sem.-1)**

## PROBLEM SOLVING USING C

**Subject Code : UGCA-1903**

**M.Code : 76963**

**Date of Examination: 12-12-2023**

**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 :**

- What is a variable? Illustrate with an example.
- What is the importance of keywords in C?
- Explain in brief about Symbolic Constants.
- What are Nested loops?
- What is use of switch statement in C?
- Differentiate between Break and Continue statements.
- Write advantages of Arrays.
- What do you mean by function prototypes?
- Differentiate between arrays and structures.
- What are the uses of pointer?

## **SECTION-B**

2. **Write a detailed note on following :**
  - a) Flowcharts
  - b) Decision Trees
3. **Explain the following Operators in C Language with suitable examples :**
  - a) Arithmetic
  - b) Unary
  - c) Logical
4. **Explain the following control flow statements with a suitable C program :**
  - a) While
  - b) For
5. What do you mean by Recursion? What is the use of Recursion in C programs? Write a program to find factorial of a number using Recursion.
6. Write a detailed note on various storage classes available in C language.
7.
  - a) What is a pointer? Explain how the pointer variable its declared and initialized?
  - b) Write a program in C to find the sum and mean of all elements in an array using pointers.

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