**Roll No.**

Total No. of Questions: 7          Total No. of Pages: 02

**B. Sc (IT/ BCA) (Sem. 1)**
**PROGRAMMING IN C**
**Subject Code: BSIT/ BSBC-102**
**Paper ID: B1109**

Time: 3 Hrs.          Max. Marks: 60

**INSTRUCTION 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. Explain the following briefly:

   a) Draw the symbols used in a flow chart?

   b) Why is programming needed?

   c) Why is the use of go to statement discouraged in C programs?

   d) Declare a 3-dimensional array to store 30 students' names class wise (for 3 classes)?

   e) What is a pointer?

   f) Differentiate between struct and union?

   g) Write the syntax of do...while statement & explain it?

   h) Write down program instructions to open and close a file?

   i) What is the drawback of declaring variables as global?

   j) How is a recursive function defined?

## SECTION B

2. Write down the different options for writing format string in I/O statements in a C-program?

3. Write down a C program to check if a number is present in a given list of numbers. If present give location) of the number otherwise insert the number in the list at the end?

4. Explain the use of 'break' statement? Write a program to check whether a number is prime using break statement?

**5.** How is a 2-D matrix represented in memory? Write a program to add (3,3) matrix row wise and generate a (3,1) matrix?

**6.** What is a storage class? Explain the different types of storage classes?

**7.** What is the difference between call by value and call by reference?
Explain with the help of an example?