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Total No. of Questions: 07

B.Sc.(IT) (Sem.-1st)

## PROGRAMMING IN C

Subject Code: BS-105 Paper ID: [B0403]

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 has to attempt any FOUR questions.

#### **SECTION-A**

# l. Write briefly:

- a) What do you mean by Identifiers and Keywords?
- b) Write a program to shift the entered number by three bits left and display the result.
- c) What are ternary operators? Give example.
- d) Differentiate between break and continue statements.
- e) What do you choose between while and for loop?
- f) Can we store values and addresses in the same array? Explain.
- g) What are pointers? Write at least two advantages of using pointers.
- h) Can we pass functions to other functions? If yes how?
- i) Write at least three advantages of functions.
- j) What are the different modes in which a file can be opened?

## **SECTION-B**

- 2. (a) Explain various C operators. (5)
  - (b) Write a program to find the roots of a quadratic equation using switch statement. (5)
- 3. (a) Explain the different type of Data types available in C.
  - (b) Write a program to reverse a given number and check whether a given number is same as that of reversed. (5+5=10)
- 4. (a) Differentiate between call by value and call by reference concept of functions with an example. (6)
  - (b) Write a program to find the factorial of a given number using concept of functions. (4)
- 5. (a) Give the limitations of arrays.
  - (b) How a string is stored in C?
  - (c) Write a C program for matrix multiplication. (2+2+6=10)
- 6. (a) Write a program to add two numbers through variables and their pointers.
  - (b) Write a note on arithmetic operations with pointers.
  - (c) Write note on dynamic memory allocation. (4+3+3=10)
- 7. (a) Write a program to copy the contents of one text file into another. (5)
  - (b) Write detailed note on I/O operations on file. (5)