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**GSE/D-22**

**1166**

PROGRAMMING IN C

BCA-116

Time : Three Hours]

[Maximum Marks : 80

**Note :** Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

### (Compulsory Question)

1. (a) What is the role of comments ? How comments can be written in C ?

    (b) Differentiate between getch(), getche() and getchar().

    (c) Differentiate between break and continue.

    (d) What is recursion ?

    (e) Why goto statement should be avoided in a program ?

    (f) How arrays can be initialized ?

    (g) What is meant by typecasting ?

    (h) How can you declare a string in C ?        8×2=16

P.T.O.

## Unit I

2. (a) Explain various data types in C.                8

   (b) Explain structure of a C program using suitable example.                8

3. (a) What is the difference between constants and variables ? How can we declare constants in C ? Explain using suitable examples.                8

   (b) Explain various I/O functions in C using suitable examples.                8

## Unit II

4. Describe various operators in C along with their hierarchy and associativity.                16.

5. (a) Write a program in C to find greatest among three numbers.                8

   (b) Discuss switch statement with the help of suitable examples. Also discuss all the possible cases in switch statement.                8

## Unit III

6. (a) Write a program in C to find the sum of the digits of the input number.                8

(b) What do you understand by function ? Explain the various benefits of using functions. **8**

7. Describe various types of loops in C with the help of suitable examples. **16**

## Unit IV

8. Explain various storage classes in C in detail. **16**

9. What do you mean by array ? Explain various types of arrays in detail. Write a program in C to biggest of *n* numbers. **16**