

Roll No. 0004

Exam Code : D-22

Subject Code—58388

B.Sc. EXAMINATION

(Main/Reappear) (Batch 2018 Onwards)

(First Semester)

COMPUTER SCIENCE

CCsL-105

Programming in 'C'

Time : 3 Hours

Maximum Marks : 80

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

1. (i) What is the difference between pre-increment and post-increment operation ?
- (ii) Define local and global variables.

- (iii) Write the purpose of size of operator in pointers.
- (iv) What is the difference between function declaration and function definition in C ?
- (v) What is dangling memory problem ?
- (vi) Different between iteration and recursion.
- (vii) Differentiate between operators '&&' and '&'.
- (viii) What is the purpose a header file ? Is the use of a header file absolutely necessary ?

**2×8=16**

### Unit I

2. Write short notes on the following functions :

**4×4=16**

- (i) scanf()
- (ii) getch()
- (iii) getche()
- (iv) puts().

3. (a) Describe the structure of a C program. 8  
(b) What do you understand by operators ?  
Explain Arithmetic operators along with  
their precedence. 8

## Unit II

4. Explain various types of decision control structure available in C with the help of an example. 16
5. (a) Explain the "switch case" statement with syntax and suitable example. 8  
(b) What is recursive function ? Write a program to find factorial of an integer number by using recursive function. 8

## Unit III

6. (a) Write a C program to check if given number is present in an array or not. 8  
(b) Discuss dynamic memory allocation function in C with their syntax. 8

7. Write a program to multiply two  $3 \times 3$  matrix. 16

#### Unit IV

8. (a) Write a "C" program to read and write data from/in file. 8
- (b) Explain union in C programming with suitable example. How does union differ from structures ? 8
9. What do you understand by a string ? Explain any five string handling functions with suitable example and write C program to find the string length without using string function. 16