

7. (a) Write a program in C language to insert an element in one dimensional array. 8
(b) How an entire array can be passed to a function ? Describe with the help of an example. 8

Unit IV

8. (a) Write a C program to read a string and count number of characters in it. 8
(b) What is Structure data type in C language ? Describe the need of it with the help of example. 8
9. Differentiate the following : 16
(i) Structure and Union
(ii) fopen() and fclose()
(iii) fscanf() and fprintf()
(iv) strcmp() and strcpy().

Roll No.

Exam Code : J-21

Subject Code—52508

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. All questions carry equal marks.

(Compulsory Question)

1. (a) What are the various types of constants used in C ? 2
(b) Explain putchar(). 2
(c) What is use of if statement ? 2

- (d) What is output of the following program ?

```
main( )  
{int m = 1, n = 2;  
for (j = 1; j <= 2 : j = j + 1)  
{m = m + 1;  
n = n*j;  
printf(“%d\t%d\t”, m, n);  
}}
```

- (e) What is multidimensional array ? 2
(f) What is call by value ? 2
(g) What is String ? 2
(h) How a file is declared in C ? 2

Unit I

2. (a) What is data type ? Explain all the data types used in C language. 12
(b) What is variable ? What are the rules for defining variables ? 4
3. What is Operator ? Explain various types of operators available in C language. 16

Unit II

4. (a) What is ELSE-IF ladder ? Describe with the help of example. 8
(b) Differentiate between Break and Continue Statements. 4
(c) Explain the structure of FOR loop. 4
5. (a) Describe Storage classes in detail. 8
(b) What is recursion ? What are its conditions ? Explain with example. 8

Unit III

6. (a) Define two dimensional array. Write a program in C language to find the transpose of Matrix. 8
(b) Write short notes on the following : 8
(i) malloc()
(ii) calloc()
(iii) pointers
(iv) free()