



UN – 310

I Semester B.C.A. Degree Examination, November/December 2015
(Y2K14 Scheme) (CBCS)
COMPUTER SCIENCE

BCA 103T : Problem Solving Techniques Using 'C'

Time : 3 Hours

Max. Marks : 70

Instruction : Answer **all** Sections.

SECTION – A

I. Answer **any ten** questions :

(10×2=20)

- 1) Define algorithm.
- 2) Define system software.
- 3) What is header file ?
- 4) What are the rules for declaring variables in C ?
- 5) Give the syntax and example for If-Else statement.
- 6) What is the difference between break and continue ?
- 7) How to declare and initialize two dimensional array ?
- 8) Difference between Strcmp() and Strcmpi().
- 9) What is Malloc() and Calloc() ?
- 10) Give the difference between * and & in C pointer.
- 11) What is file pointer ?
- 12) What are command line arguments ?

SECTION – B

II. Answer **any five** of the following :

(5×10=50)

- | | |
|---|---|
| 13) a) Explain the structure of a C program. | 4 |
| b) Write an algorithm and flowchart to find largest of 3 numbers. | 6 |
| 14) a) Explain formatted input-output function in C. | 5 |
| b) Explain binary operators in C with examples. | 5 |



- 15) Write a menu driven C program using switch-case to find :
a) Sum of the digits of a number
b) Factorial of N. 10
- 16) Explain different types of user-defined functions with examples. 10
- 17) a) Write a C program to arrange the given set of numbers in ascending order. 4
b) Write a program to find the product of matrices of order $m \times n$. 6
- 18) a) Explain call by value and call by reference with examples. 5
b) Explain array of structures with an example. 5
- 19) a) Explain different modes of opening a file. 5
b) Write a C program to copy contents of one file to another. 5
- 20) Write short notes on :
a) Local variable and global variable. 5
b) While loop and Do-while loop. 5

SECTION - B

II. Answer any five of the following :

- 13) a) Explain the structure of a C program.
b) Write an algorithm and flowchart to find largest of 3 numbers.
- 14) a) Explain formatted input-output function in C.
b) Explain binary operators in C with examples.