

Professional Course Examination (Odd), 2023

(3rd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Course No. : BCA/3/CC/18

(Data Structure using C Lab)

(Practical)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 30)

I. Answer any two from the following :

15×2=30

1. Search an element on a given list of integers using tower of Hanoi using recursive function.
2. Write a C program to implement binary search.
3. Write a C program using selection sort.
4. Write a C program using bubble sort.

SECTION—B

(Marks : 20)

20.

II. Answer any one from the following :

1. Write a C program to simulate the working of a queue of integers using an array. Provide the following operations :

- (a) Insert
- (b) Delete
- (c) Display

2. Write a C program using dynamic variables and pointers to construct a stack of integer using linked list and to perform the following operations :

- (a) Push
- (b) Pop
- (c) Display

The program should print appropriate messages for stack overflow, stack underflow and stack empty.

3. Write a C program to construct circular linked list :

- (a) Insert
- (b) Delete
- (c) Display

SECTION—C

(Marks : 25)

III. Viva voce.

15

IV. Practical record book.

10
