Professional Course Examination, January, 2021

(3rd Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No.: BCA/3/CC/18

(Data Structure using C Lab) (Revised)

(Practical)

Full Marks: 75

Time: 3 hours

The figures in the margin indicate full marks for the questions

SECTION-A

Answer any **two** questions

1. Write a C Program to construct a Stack of integers and to perform the following operations on it.   10
      a. Push   b. Pop   c. Display

2. Write a C program using quick Sort.   10

3. Write a recursive C Program for Solving the Tower of Hanoi problem   10

4. Write a C Program to simulate the working of a circular queue of integers using an array. Provide the following operations.   10
      a. Insert   b. Delete   c. Display

SECTION - B
Answer any two questions

5. Write a C Program to construct doubly linked list and perform the following operations: 15
      a. insert (first)   b. delete (first)   c. Display

6. Write a C Program-   15
      a. To construct a binary search tree of integers.
      b. To traverse the tree using inorder
      c. To display the elements in the tree.

7. Write a recursive C Program for searching an element on a given list of integers using the Binary Search method.   15

SECTION - C
8. Viva   15
9. Record Book   10