

DATA STRUCTURE USING C
4th Exam/Comp/IT/CSE/0622/May'18

Duration: 3Hrs.

M.Marks:75

SECTION-A

Q1. Do as directed.

10x1.5=15

- a. A queue data structure has FIFO property. (T/F)
- b. An array is a collection of _____ data items.
- c. FIFO stands for _____.
- d. _____ search divides the list in two parts.
- e. Binary search is applied to sorted list of elements. (T/F)
- f. Two ways linked list can be traversed in both directions. (T/F)
- g. BST stands for _____.
- h. The tree is a Non Linear data structure. (T/F)
- i. In _____ a function call itself.
- j. Two nodes are called _____ if they have same parents.

SECTION-B

Q2. Attempt any six questions.

6x5=30

- i. What do you mean by Linked List? Explain.
- ii. Explain the difference between Linear and Non Linear data structure?
- iii. What does FRONT and REAR signifies in queue?
- iv. What do you mean by Data Type? Explain.
- v. What do you mean by Call by Value and Call by Reference? Explain with example.
- vi. Write an algorithm to delete an element from an array?
- vii. What do you mean by Stack?
- viii. Explain the concept of Recursion with suitable example?

SECTION-C

Q3. Attempt any two questions.

2x15=30

- a. Define array. How do you perform traversing, insertion, deletion, searching in array?
- b. Write a short note on **(any two)**
 - i. Bubble Sort.
 - ii. Circular Queue
 - iii. Top down Approach
- c. Write a program in C to implement binary Search. Also explain it with suitable example.