[April-16]

[EID-102]

B.Tech. Degree Examination

CSE & IT
II SEMESTER

DATA STRUCTURES WITH C

(Effective from the admitted batch 2015–16)

Time: 3 Hours **Max.Marks: 60**

Instructions: Each Module carries 12 marks.
Answer all modules choosing one question from each module.
All parts of the module must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

MODULE-I

1. a) Write about primitive and non primitive data structures 6
   b) Write a C program for Binary Search 6

OR

2. a) What is an array? Explain its operations 6
   b) Derive best and worst case line complexity of a linear search 6

MODULE -II

3. a) What is single linked list? Explain operations of SLL? 8
   b) Explain the memory representation of linked list 4

OR

4. a) Explain the operations of Double linked list in detail 6
   b) Discuss about operations of circular linked list 6

MODULE -III

5. a) Explain array and linked representation of stacks 6
   b) Explain operations of stacks in detail 6

OR

6. a) What is a Queue? Explain its applications 6
   b) Explain operations of Queue in detail 6

MODULE -IV

7. a) Write a C program for bubble sort algorithm 6
   b) What is a graph? Explain graph traversals in detail 6

OR

8. a) Write about spanning trees in detail 6
   b) Explain selection sort algorithm with example 6

MODULE -V

9. What is binary tree? Explain binary tree traversals in detail 12

OR

10. a) Discuss about binary search tree operations 6
    b) Write about heap tree with neat illustration 6

[3,7/II S/116]