Structure of Computer Science/Information Technology (IT) Syllabus

II Year IV Semester

Time : 3 hrs **MODEL PAPER** **Total : 75 M**

DATA STRUCTURES

PART - I

Answer any **FIVE** of the following questions 5 X 5 = 25 M

1. Define ADT?
2. How do you PUSH and POP elements in a linked list?
3. Explain different types of QUEUES
4. write an algorithm on Binary Search?
5. Explain Tree Traversal Techniques?
6. Explain about Threaded Binary Search Trees?
7. Explain about Time and Space Complexity?
8. Explain the procedure to convert a directed graph into matrix?

PART - II

Answer the following questions 5 X 10 = 50 M

9. Explain Linear Data Structures and Non Linear Data Structures?
   (or)
   Explain different types of Linked Lists?

10. What is Stack? Explain operations on Stack?
    (or)
    Explain concepts of Priority Queues?

11. What is Binary Search Tree? Explain?
    (or)
    Give a Brief description on applications of BST?

12. What is Graph? How to represent Graph Traversal?
    (or)
    Explain Basic Searching Techniques?

13. Explain Insertion Sort?
    (or)
    Explain Quick Sort?