Question Bank
Subject : Data Structures

Syllabus for the Test 2

Module 2 : **Stack and Queues**

Introduction, ADT of Queue, Operations on Queue, Array Implementation of Queue, Circular Queue, Priority Queue, Double Ended Queue, Applications of Queue

Module 3 : **Linked List**
Introduction, Representation of Linked List, Linked List v/s Array, Implementation of Linked List, Linked Implementation of Stack and Queue, Circular Linked List, Doubly Linked List,

Module 4 : **Trees**

Introduction, Tree Terminologies, Binary Tree, Representation, Types of Binary Tree, Binary Tree Traversals, Binary Search Tree

2 Marks Questions

1. Linked list verses array
2. Linked Queue definition, example with diagram
3. Linked Stack definition, example with diagram
4. Singly Linked List definition, example with diagram
5. Doubly Linked List definition, example with diagram
6. Circular Linked List definition, example with diagram
7. Few definitions from tree terminologies with example
8. Construct Binary Search Tree for given input
9. Types of Linked List

5 Marks Questions

1. Write a short note on Dynamic memory allocation
2. Write any 3 algorithm / c function of Singly Linked List
3. Write any 3 algorithm / c function of Doubly Linked List
4. Write any 3 algorithm / c function of Circular Linked List
5. Write any 3 algorithm / c function of Linked Queue
6. Write any 3 algorithm / c function of Linked Stack
7. Write short note on Tree Traversal
8. Construct tree from traversal output

Text Books:

1. Data Structures using C, Reema Thareja, Oxford
2. Data Structures using C and C++, Rajesh K Shukla, Wiley - India
3. Data Structures Using C, Aaron M Tenenbaum, Yedidyah Langsam, Moshe J Augenstein, Pearson
4. Data Structures: A Pseudocode Approach with C, Richard F. Gilberg & Behrouz A., Forouzan, Second Edition, CENGAGE Learning
5. Introduction to Data Structure and Its Applications, JeanPaul Tremblay, P. G. Sorenson

Reference Books:

1. C & Data Structures, Prof. P.S. Deshpande, Prof. O.G. Kakde, DreamTech press.
2. Data Structure Using C, Balagurusamy.
3. Data Structures Using C, ISRD Group, Second Edition, Tata McGraw-Hill.
4. Data Structures, Adapted by: GAV PAI, Schaum‟s Outlines.