1. What do you mean by a Data structure?

A data structure is basically storage format that enables access and modification on data. Data Structure is a collection of data values, relationships among them and operation that can be applied on data.

1. What are some of the applications of DS?

. Searching

. Sorting

. Updating

. Deleting

. Inserting

1. What are the advantages of a Linked list over an array?

> Node in Linked list can be dynamically created whereas array cannot

> Easy insertion and deletion

4) Write the syntax in C to create a node in the singly linked list.

Struct Node{

Int data;

Struct Node \*link;};

5) What is the use of a doubly-linked list when compared to that of a singly

linked list?

. Doubly linked list allow traversal both side;

. complexity of insertion and deletion at known position is low in doubly linked list.

6) What is the difference between an Array and Stack?

> In stack there is no random access where as it is possible in array using indexes

> Stack has only one way for insertion and deletion, no such limitation in array;

7) What are the minimum number of Queues needed to implement the priority

queue?

> 2 queues, 1 for storing data and second for priorities

8) What are the different types of traversal techniques in a tree?

> Inorder: left root right

> Preorder: root left right

> Postorder: left right base