1.What is a linked list?

a)

A linked list is a linear data structure, in which the elements are not stored at contiguous memory locations. The elements in a linked list are linked using pointers.

2. What are the different forms of linked lists?

a)

There are four key types of linked lists:

1.Singly linked lists

2.Doubly linked lists

3.Circular linked lists

4.Circular doubly linked lists

3. What is a linked list's purpose?

a)

1.Implementation of stacks and queues

2.Implementation of graphs

3.Dynamic memory allocation

4. What are the advantages of linked lists over arrays?

a)

Advantages :

1.linked list has dynamic size whereas for array it is fixed size

2. Insertion and deletion is easy in linked list.

5. What is the purpose of a circular linked list?

a)

1) Any node can be a starting point. We can traverse the whole list by starting from any point. We just need to stop when the first visited node is visited again.

2) Useful for implementation of queue, we don’t need to maintain two pointers for front and rear if we use circular linked list. We can maintain a pointer to the last inserted node and front can always be obtained as next of last.

3) For example, when multiple applications are running on a PC, it is common for the operating system to put the running applications on a list and then to cycle through them, giving each of them a slice of time to execute, and then making them wait while the CPU is given to another application.

6. How will you explain Circular Linked List?

a)

Circular Linked List is a variation of Linked list in which the first element points to the last element and the last element points to the first element. Both Singly Linked List and Doubly Linked List can be made into a circular linked list.