

# 4 Lecture - CS301

## Important Mcqs

1. What is the time complexity of inserting an element at the beginning of a singly linked list?

- a)  $O(n)$
- b)  $O(\log n)$
- c)  $O(1)$
- d)  $O(n^2)$

Answer: c)  $O(1)$

2. Which of the following is not a type of Linked List?

- a) Singly Linked List
- b) Doubly Linked List
- c) Circular Linked List
- d) Binary Linked List

Answer: d) Binary Linked List

3. What is the time complexity of inserting an element at the end of a singly linked list?

- a)  $O(n)$
- b)  $O(\log n)$
- c)  $O(1)$
- d)  $O(n^2)$

Answer: a)  $O(n)$

4. Which of the following is not a pointer used in Linked List?

- a) head pointer
- b) tail pointer
- c) node pointer
- d) root pointer

Answer: d) root pointer

5. What is the time complexity of deleting an element from a singly linked list?

- a)  $O(n)$
- b)  $O(\log n)$
- c)  $O(1)$
- d)  $O(n^2)$

Answer: a)  $O(n)$

6. Which of the following Linked List traversal technique involves recursion?

- a) Linear traversal
- b) Binary traversal
- c) Depth First Traversal
- d) Breadth First Traversal

Answer: c) Depth First Traversal

7. Which of the following is a disadvantage of using a doubly linked list?
- a) Faster traversal in both directions
  - b) Requires more memory than singly linked list
  - c) More difficult to implement than singly linked list
  - d) Allows insertion and deletion of elements only at the beginning of the list

**Answer: b) Requires more memory than singly linked list**

8. Which of the following is not a type of node used in Linked List?

- a) data node
- b) header node
- c) sentinel node
- d) tail node

**Answer: a) data node**

9. Which of the following Linked List method is used to reverse the order of elements in the list?

- a) reverse()
- b) rotate()
- c) shuffle()
- d) sort()

**Answer: a) reverse()**

10. Which of the following is a type of circular linked list?

- a) Circular doubly linked list
- b) Circular binary linked list
- c) Circular balanced linked list
- d) Circular heap linked list

**Answer: a) Circular doubly linked list**