2 Lecture - CS301

Important Mcqs

1. **Which data structure is used to implement a list?**
   a) Array
   b) Stack
   c) Queue
   d) Tree
   Answer: a) Array

2. **Which of the following is a disadvantage of array-based lists?**
   a) Efficient random access to elements
   b) Dynamic resizing of the list
   c) Inefficient insertion and deletion operations
   d) No need to allocate memory in advance
   Answer: c) Inefficient insertion and deletion operations

3. **Which of the following is a disadvantage of linked-list based lists?**
   a) Efficient random access to elements
   b) Dynamic resizing of the list
   c) Inefficient insertion and deletion operations
   d) No need to allocate memory in advance
   Answer: a) Efficient random access to elements

4. **Which of the following is true for an empty list?**
   a) It has no elements
   b) It has one element
   c) It has multiple elements
   d) None of the above
   Answer: a) It has no elements

5. **Which operation adds an element at the end of an array-based list?**
   a) push()
   b) pop()
   c) insert()
   d) append()
   Answer: d) append()

6. **Which operation adds an element at the beginning of a linked-list based list?**
   a) push()
   b) pop()
   c) insert()
   d) append()
   Answer: a) push()

7. **Which operation removes the last element from an array-based list?**
   a) push()

b) pop()
c) insert()
d) append()
Answer: b) pop()

8. **Which operation removes the first element from a linked-list based list?**
   a) push()
   b) pop()
   c) insert()
   d) append()
   Answer: b) pop()

9. **Which of the following is a common application of lists?**
   a) Implementing a queue
   b) Implementing a hash table
   c) Implementing a binary search tree
   d) Implementing a heap
   Answer: a) Implementing a queue

10. **Which of the following is not a type of list?**
    a) Singly linked list
    b) Doubly linked list
    c) Circular linked list
    d) Heap linked list
    Answer: d) Heap linked list