# 4 Lecture - CS502

## Important Mcqs

1. **Which of the following is not a sorting algorithm?**
   a) Merge sort
   b) Bubble sort
   c) Hash sort
   d) Quick sort
   Solution: c) Hash sort

   **Which sorting algorithm has the worst-case time complexity of O(n^2)?**
   a) Quick sort
   b) Merge sort
   c) Bubble sort
   d) Radix sort
   Solution: c) Bubble sort

   **Which of the following sorting algorithms is a stable sort?**
   a) Heap sort
   b) Insertion sort
   c) Quick sort
   d) Selection sort
   Solution: b) Insertion sort

   **Which sorting algorithm is used by the C++ STL sort() function?**
   a) Quick sort
   b) Merge sort
   c) Heap sort
   d) Bubble sort
   Solution: a) Quick sort

   **Which sorting algorithm is often used for sorting linked lists?**
   a) Quick sort
   b) Merge sort
   c) Bubble sort
   d) Selection sort
   Solution: b) Merge sort

   **Which of the following sorting algorithms has a worst-case time complexity of O(n log n)?**
   a) Quick sort
   b) Bubble sort
   c) Insertion sort
   d) Selection sort
   Solution: a) Quick sort

   **Which sorting algorithm works by repeatedly finding the minimum element from the**

**unsorted part of the array and putting it at the beginning?**
a) Merge sort
b) Quick sort
c) Selection sort
d) Bubble sort
Solution: c) Selection sort

**Which of the following is a disadvantage of using quick sort?**
a) Worst-case time complexity is O(n^2)
b) It is not a comparison-based sorting algorithm
c) It requires extra space for the temporary array
d) It is not an in-place sorting algorithm
Solution: a) Worst-case time complexity is O(n^2)

**Which sorting algorithm can be used for sorting strings in lexicographic order?**
a) Bubble sort
b) Quick sort
c) Insertion sort
d) Radix sort
Solution: d) Radix sort

**Which sorting algorithm is based on the divide-and-conquer strategy?**
a) Bubble sort
b) Selection sort
c) Merge sort
d) Quick sort
Solution: c) Merge sort