

# 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**