

# Data Structure & Algorithms - Set 2

This test is intended to test your knowledge on data structure and algorithms.

**Q: Insertion sort is preferred over selection sort for which of the following?**

- ☒ Smaller number of records
- ☐ Larger number of records

**Q: On a list of length  $n$ , sequential search has running time of \_\_\_\_\_**

- ☐  $O(n)$
- ☐  $O(n^2)$
- ☐  $O(\log n)$

**Q: Retrieval from a contiguous list of length has running time of \_\_\_\_\_**

- ☐  $O(n)$
- ☐  $O(n^2)$
- ☒  $O(1)$
- ☐  $O(\log n)$

**Q: Retrieval from a linked list of length  $n$  has running time of \_\_\_\_\_**

- ☐  $O(1)$
- ☒  $O(n)$
- ☐  $O(n^2)$
- ☐  $O(\log n)$

**Q: Which of the following sort requires moving of multiple entries after key comparisons?**

- ☐ Selection sort
- ☒ Insertion sort

## Score Card

Total no. of questions:  
10

No. of questions  
attempted: 10

No. of correct answers:  
10

Overall score: 10/10

Show Score

Show Answers

**Q: Which of the following performs more number of comparisons when sorting?**

- ☒ Selection sort
  - ☐ Insertion sort
- 

**Q: Shell sort is an optimization over which of the following?**

- ☐ Insertion sort
  - ☐ Selection sort
- 

**Q: Which of the following can be termed as divide-and-conquer sorting algorithm?**

- ☐ Insertion sort
  - ☐ Selection sort
  - ☒ Quicksort
  - ☐ Shell Sort
- 

**Q: Which of the following has comparison tree of maximum height?**

- ☐ Binary Search
  - ☒ Sequential Search
- 

**Q: Which of the following sort algorithm does not have time complexity of  $O(n*n)$ ?**

- ☐ Insertion Sort
  - ☐ Selection Sort
  - ☒ Merge Sort
  - ☐ Bubble Sort
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