

1.

**in place sorting algorithm which needs the minimum number of swaps?**

- A. Insertion Sort**
- B. Quick Sort**
- C. Heap Sort**
- D. Selection Sort**

**Answer : D**

2.

**Given Array of 6 elements as below: 23 32 45 56 68 74**

**To sort this array in ascending order, which of the following will use minimum comparisons?**

- A. Selection sort**
- B. Mergesort**
- C. Insertion sort**
- D. Quicksort using the last element as pivot**

**Answer: C**

3.

**The subproblems in divide and conquer are solved \_\_\_\_\_.**

- A. Dependently**
- B. Concurrently**
- C. Independently**
- D. Parallely**

**Answer: C**

4.

Quick sort algorithm requires a maximum of \_\_\_\_ stack space.

- A.  $O(n)$
- B.  $O(n^2)$
- C.  $O(\log n)$
- D. None of these

Answer: C

5.

Which of the following is best running time to sort  $n$  integers in the range 0 to  $n^2 - 1$ ?

- A.  $O(n^2)$
- B.  $O(\log n)$
- C.  $O(n \log n)$
- D.  $O(n)$

Answer: C