

**# MCQ's DAY-02:**

Q. Which of the following sorting algorithm is an efficient for smaller input size array?

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. Quick Sort

**Answer: C**

Q. Which of the following sorting algorithm is an efficient for larger input size array?

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. Quick Sort

**Answer: D.**

Q. In which of following sorting algorithm elements which are at two consecutive positions gets compared?

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. Quick Sort

**Answer: B**

Q. What is the worst case time complexity of insertion sort?

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

**Answer: B**

Q. In which of the following sorting algorithm/s magnitudes of time complexities are same in all the cases ?

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. Merge Sort
- E. Both C & D
- F. Both A & D

**Answer: F**

Q. Which of the following sorting algorithm works efficiently for already sorted input sequence?

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. Both B & C
- E. None of the above

**Answer: C**

Q. \_\_\_\_\_ Sort is also referred as Sinking Sort.

- A. Selection Sort
- B. Bubble Sort
- C. Insertion Sort
- D. None of the above

**Answer: B**

Q. In which of the following algorithm divide-and-conquer strategy is not used?

- A. Binary Search
- B. Merge Sort
- C. Insertion Sort
- D. Quick Sort
- E. None of the above

**Answer: C**

Q. In Selection Sort algorithm, what will the array status after 3 iterations for given input: 30 20 60 50 10 40.

- A. 10 20 30 40 50 60
- B. 10 30 20 40 50 60
- C. 10 20 30 60 50 40
- D. 10 20 30 50 60 40

**Answer: C**

Q. In Bubble Sort algorithm, what will the array status after 3 iterations for given input: 30 20 60 50 10 40.

- A. 20 10 30 40 50 60
- B. 30 10 20 40 50 60
- C. 30 20 10 50 40 60
- D. None of the above

**Answer: A**

Q. In a selection sort max \_\_\_\_ no. of iterations are required to sort all array elements.

- A. n
- B. n+1
- C. n-1
- D. 2n

**Answer: C**

Q. Which of the following statement is false about an array data structure?

A. Array elements can be accessed by using random access which is faster access.

B. Array is static

C. Array is a linear data structure

D. Addition and deletion operations are efficient on an array data structure.

**Answer: D**

Q. What is time complexity of addition and deletion operations on an array

A.  $O(1)$

B.  $O(n)$

C.  $O(\log n)$

D. None of the above

**Answer: B**

Q. On an array data structure searching operation can be performed efficiently in \_\_\_\_\_ time.

A.  $O(1)$

B.  $O(\log n)$

C.  $O(n \log n)$

D.  $O(n^2)$

E.  $O(n)$

**Answer: B**