1. Which of the following algorithm is not in place algorithm?
   A. Bubble sort
   B. Merge sort
   C. Insertion sort
   D. Quick sort

Answer: B

2. Which of the following algorithm follows “Divide and Conquer”?
   A. Insertion sort
   B. Merge sort
   C. Quick sort
   D. Both B and C
   E. None of the above

Answer: D

3. Time complexity of binary search algorithm is
   A. O(n)
   B. $O(n^2)$
   C. O(log n)
   D. O(n log n)

Answer: C

4. Which of the following algorithm will work in less amount of space?
   A. Merge sort
   B. Quick sort
   C. Both
   D. Only A

Answer: B

5. If element is found at last position of array in linear search the what will be the time complexity?
   A. O(1)
   B. O(n log n)
   C. O(n)
   D. $O(n^2)$

Answer: C

6. When worst case situation will occur in quick sort?
   A. Array is not sorted and pivot = left/right
   B. Array is not sorted and pivot = mid
   C. Array is sorted and pivot = left/right
   D. Array is sorted and pivot = mid

Answer: C

7. What will be status of array (55, 44, 22, 66, 11, 33) after three passes in insertion sort?
   A. 44, 55, 22, 66, 11, 33
   B. 22, 44, 55, 66, 11, 33

C. 44, 22, 55, 66, 11, 33
D. None of the above

Answer: B

8. Which of the following sorting algorithm will work efficiently on pre-sorted array?
    a. Selection sort
    b. Bubble sort
    c. Insertion sort
    d. All of the above

Answer: c

9. For an array of n elements in ascending order, in how much time we can search a particular element?
    a. O(1)
    b. O(n)
    c. O(log n)
    d. None of the above

Answer: c

10. Addition and deletion of elements in array is not efficient?
    a. False
    b. True

Answer: b