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Unit 5 - Week 4: Sorting and Searching Algorithms

Quiz 4

The due date for submitting this assignment has passed. Due on 2018-03-07, 23:59 IST.
As per our records you have not submitted this assignment.

1) Which one of the following can be termed as worst case for linear search? *1 point*

- Element to be searched is present somewhere in the middle of the array.
- Element to be searched is present at 0th index of the array.
- Element to be searched is present at the last index of the array.
- Element to be searched is present at the last index of the array or Element to be searched is not present in the array.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Element to be searched is present at the last index of the array or Element to be searche is not present in the array.

2) Which of the following is correct in context of Binary Search? *1 point*

- Input data needs to be sorted in Binary Search.
- Binary Search doesn't access the data elements in a sequential order.
- In Binary Search, search is carried out in either half of the given input list.
- All of the above.

No, the answer is incorrect.
Score: 0

Accepted Answers:
All of the above.

3) In the mergesort algorithm, what is the running time of the merge operation? *1 point*

- O(log n)
- O(n)
- O(n log n)
- O(n^2)

No, the answer is incorrect.
Score: 0

Accepted Answers:
O(n)

4) Which of the following sorting algorithm uses divide and conquer? *1 point*

- Merge Sort
- Insertion Sort
- Radix Sort
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Merge Sort

5) What is the running time of Insertion Sort? *1 point*

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

No, the answer is incorrect.
Score: 0

Accepted Answers:
$O(n^2)$

6) Which among the following sorting algorithm uses auxiliary storage to sort input data elements? *1 point*

- Insertion Sort
- Counting Sort
- Radix Sort
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Counting Sort

7) the minimum number of comparisons required to find the maximum and minimum in an array of 100 elements are ____ *1 point*

- 198
- 150
- 148
- 199

No, the answer is incorrect.
Score: 0

Accepted Answers:
148

8) Let the numbers 794, 332, 561, 342, 200, 607, and 893 be sorted using radix sort. What will be the sixth number in the sequence of numbers after sorting the second digit? *1 point*

- 893
- 794
- 332
- 561

No, the answer is incorrect.
Score: 0

Accepted Answers:
893

9) Which of the following is the correct recurrence relation related to the complexity of Binary Search? *1 point*

- T(n)=T(n/2)+O(n)
- T(n)=T(n/2)+1
- T(n)=2T(n/2)+O(n)
- T(n)=2T(n/2)+1

No, the answer is incorrect.
Score: 0

Accepted Answers:
T(n)=T(n/2)+1

10) Which of the following sorting algorithms has a running time of O(nlogn)? *1 po*

- Merge Sort
- Insertion Sort
- Counting Sort
- None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
Merge Sort

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