DATA STRUCTURES & ALGORITHMS (BCSE2361)

Question **1**
Not yet answered
Marked out of 0.50
Flag question

1. What is an external sorting algorithm?

Select one:
- a. Algorithm that uses main memory during the sort.
- b. Algorithm that uses tape or disk during the sort .
- c. Algorithm that involves swapping.

Clear my choice

Question **2**
Not yet answered
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Flag question

10. Which of the following is incorrect with respect to binary trees?

Select one:
- a. Let T be a binary tree with N nodes. Then the number of levels is at least ceil(log (N + 1)).
- b. Let T be a binary tree with N nodes. Then the number of levels is at least floor(log (N + 1)).
- c. Let T be a binary tree with λ levels. Then T has no more than 2λ – 1 nodes.

Clear my choice

Question **3**
Not yet answered
Marked out of 0.50
Flag question

2.What is an internal sorting algorithm?

Select one:
- a. Algorithm that uses tape or disk during the sort
- b. Algorithm that uses main memory during the sort

Clear my choice

Question **4**
Not yet answered
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3. What is the worst case complexity of bubble sort?

Select one:
- a. O(n)

Quiz navigation

1 2 3 4 5 6 7 8 9
10 11 12

Finish attempt ...

Time left **0:12:02**

Question **4**
Not yet answered
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3. What is the worst case complexity of bubble sort?

Select one:
- a. O(n)
- b. O(n2)
- c. O(logn).

Clear my choice

Question **5**
Not yet answered
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Flag question

4.What is the average case complexity of bubble sort?

Select one:
- a. O(nlogn).
- b. O(logn).
- c. O(n2).

Clear my choice

Question **6**
Not yet answered
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Flag question

5. Which of the following is not an advantage of optimised bubble sort over other sorting techniques in case of sorted elements?

Select one:
- a. It is faster.
- b. Detects whether the input is already sorted.
- c. Consumes less memory.
- d. Consumes less time.

Clear my choice

Question **7**
Not yet answered
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5.What is the average case time complexity for finding the height of the binary tree?

Select one:
- a. h = O(log n).

Question 7
Not yet answered
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Flag question

5.What is the average case time complexity for finding the height of the binary tree?

Select one:
- a. h = O(log n).
- b. h = O(loglogn).
- c. h = O(nlogn).
- d. h = O(n).

Clear my choice

Question 8
Not yet answered
Marked out of 0.50
Flag question

6.The given array is arr = {1, 2, 4, 3}. Bubble sort is used to sort the array elements. How many iterations will be done to sort the array?

Select one:
- a. 1
- b. 2
- c. 0
- d. 4

Clear my choice

Question 9
Not yet answered
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6.Which of the following is not an advantage of trees?

Select one:
- a. Router algorithms
- b. Hierarchical structure
- c. Undo/Redo operations in a notepad
- d. Faster search

Clear my choice

Question 10
Not yet answered

7. What is the best case efficiency of bubble sort in the improvised version?

Select one:

Clear my choice

Question 10
Not yet answered
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Flag question

7. What is the best case efficiency of bubble sort in the improvised version?

Select one:
- a. O(nlogn)
- b. O(n)
- c. O(logn)

Clear my choice

Question 11
Not yet answered
Marked out of 0.50
Flag question

8. In a full binary tree if number of internal nodes is I, then number of nodes N are?

Select one:
- a. N = 2*I
- b. N = I – 1
- c. N = I + 1
- d. N = 2*I + 1

Clear my choice

Question 12
Not yet answered
Marked out of 0.50
Flag question

9. In a full binary tree if there are L leaves, then total number of nodes N are ?

Select one:
- a. N = 2*L – 1
- b. N = L – 1
- c. N = L + 1
- d. N = 2*L

Clear my choice

Finish attempt ...