

CS23336-Introduction to Python Programming

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State Finished


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Time taken 14 mins 53 secs

Question 1

Complete

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Question text

Which sorting algorithm would be preferred for its divide-and-conquer approach?


Question 1 Answer

- ☐ a. Linear Search
- ☐ b. Bubble Sort
- ☐ c. Binary Search
- ☒ d. Merge Sort

Question 2

Complete

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Question text

What is sorting in the context of computer science?


Question 2 Answer

- ☐ a. Searching for data in a list
- ☐ b. Inserting data into a list
- ☒ c. Arranging data in a particular format
- ☐ d. Deleting data from a list

Question 3

Complete

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Question text


What is a significant characteristic of Bubble Sort?

Question 3 Answer

- ☐ a.
It uses the heap data structure
- ☐ b.
It divides the list into sublists
- ☒ c.
It bubbles up the largest element in each pass
- ☐ d.
It recursively sorts subproblems

Question 4

Complete
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Question text


Which sorting algorithm is described as making multiple passes through a list, comparing elements, and swapping adjacent items that are out of order?

Question 4 Answer

- ☐ a.
Quick Sort
- ☒ b.
Bubble Sort
- ☐ c.
Insertion Sort
- ☐ d.
Merge Sort

Question 5

Complete
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Question text


Why is it advantageous to sort data before performing duplicate analysis?

Question 5 Answer

- ☐ a.
It has no effect on the analysis process
- ☒ b.
It allows for quicker identification of duplicates
- ☐ c.
It makes the analysis slower
- ☐ d.
It complicates the analysis process

Question 6

Complete
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Question text


Which of the following best describes the term "sorting" in computer science?

Question 6 Answer

- ☒ a. Arranging data in a specific order
- ☐ b. Merging two datasets
- ☐ c. Finding a specific element in a list
- ☐ d. Removing duplicates from a list

Question 7

Complete
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Question text


_____ is putting an element in the appropriate place in a sorted list yields a larger sorted order list.

Question 7 Answer

- ☐ a. Selection
- ☒ b. Insertion
- ☐ c. Distribution
- ☐ d. Extraction

Question 8

Complete
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Question text


What is a key disadvantage of Bubble Sort compared to more advanced algorithms like Merge Sort?

Question 8 Answer

- ☐ a. Bubble Sort is difficult to implement
- ☐ b. Bubble Sort does not guarantee sorted order
- ☒ c. Bubble Sort is less efficient for large lists
- ☐ d. Bubble Sort cannot handle duplicate elements

Question 9

Complete
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Question text


Which algorithm is efficient for analyzing the frequency distribution of items in a list?

Question 9 Answer

- ☐ a. Bubble Sort
- ☒ b. Linear Search
- ☐ c. Merge Sort
- ☐ d. Quick Sort

Question 10

Complete
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Question text


Which sorting algorithm is based on repeatedly dividing the list into halves?

Question 10 Answer

- ☐ a. Quick Sort
- ☒ b. Merge Sort
- ☐ c. Bubble Sort
- ☐ d. Insertion Sort

Question 11

Complete
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Question text

What is mean by stable sorting algorithm?

Question 11 Answer

- ☐ a. A sorting algorithm is stable if it preserves the order of non-duplicate keys
- ☒ b. A sorting algorithm is stable if it preserves the order of duplicate keys
- ☐ c. A sorting algorithm is stable if it preserves the order of all keys
- ☐ d.


d.

A sorting algorithm is stable if it doesn't preserve the order of duplicate keys

Question 12

Complete

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Question text

Which sorting algorithm involves comparing elements and swapping adjacent items that are out of order?


Question 12 Answer

- ☐ a. Binary Search
- ☐ b. Linear Search
- ☒ c. Bubble Sort
- ☐ d. Merge Sort

Question 13

Complete

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Question text

What is Bubble Sort known for?


Question 13 Answer

- ☐ a. Using the divide-and-conquer approach
- ☒ b. Bubbling up the largest element to its correct position with each pass
- ☐ c. Being the most efficient sorting algorithm
- ☐ d. Sorting data in a non-sequential manner

Question 14

Complete

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Question text

Two-way merge sort algorithm is used to sort the following elements in ascending order.

200,470,150,80,90,40,400,300,120,70

What is the order of these elements after second pass of the merge sort algorithm?

Question 14 Answer

- ☐ a. 200,470,80,150,40,90,300,400,70,120
- ☒ b.

80,150,200,470,40,90,300,400,70,120



c.

40,70,80,90,120,150,200,300,400,470



d.

40,80,90,150,200,300,400,470,70,120

Question 15

Complete

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Question text

What is one advantage of sorting a list before performing a search operation?

Question 15 Answer



a.

It has no effect on the search operation



b.

It allows for faster searching



c.

It makes the search operation slower



d.

It increases the number of comparisons needed

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