

CS23336-Introduction to Python Programming

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Time taken 7 mins 34 secs

Question 1

Complete
Marked out of 1.00
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Question text

What is Bubble Sort known for?

Question 1 Answer

☒

a.
Bubbling up the largest element to its correct position with each pass

☐

b.
Using the divide-and-conquer approach

☐

c.
Being the most efficient sorting algorithm

☐

d.
Sorting data in a non-sequential manner

Question 2

Complete
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Question text

What is the primary advantage of the divide-and-conquer approach in sorting algorithms?

Question 2 Answer

☐

a.
It avoids the need for recursion

☐

b.
It only works on small datasets

☒

c.
It allows for efficient parallel processing and sorting of data

- ☐
- d.
It simplifies the sorting process by using only one pass

Question 3

Complete
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Question text

In the context of sorting, what does the divide-and-conquer approach involve?

Question 3 Answer

- ☒
- a.
Dividing the input into parts, solving each part, and combining the solutions
- ☐
- b.
Sorting data in a single pass
- ☐
- c.
Rearranging data without sorting
- ☐
- d.
Sorting data sequentially

Question 4

Complete
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Flag question

Question text

Algorithm design technique used in merge sort algorithm is

Question 4 Answer

- ☐
- a.
Backtracking
- ☐
- b.
Greedy method
- ☒
- c.
Divide and conquer
- ☐

d.

Dynamic programming

Question 5

Complete

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Flag question

Question text

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

Question 5 Answer

☐

a.

Bubble Sort

☒

b.

Merge Sort

☐

c.

Binary Search

☐

d.

Linear Search

Question 6

Complete

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Flag question

Question text

Which Python function would you use to sort a list in-place?

Question 6 Answer

☐

a.

sort()

☐

b.

arrange()

☒

c.

sorted()

☐

d.

order()

Question 7

Complete

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Flag question

Question text

What is one of the key advantages of using the built-in sorted() function in Python?

Question 7 Answer

☐

a.
It is less efficient than custom sorting algorithms

☒

b.
It sorts data out of the box efficiently

☐

c.
It requires external libraries

☐

d.
It only works with integer arrays

Question 8

Complete
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Flag question

Question text

Which of the following is a key reason for the importance of sorting algorithms?

Question 8 Answer

☐

a.
Sorting makes it harder to search for items

☐

b.
Sorting is rarely used in programming

☐

c.
Sorting decreases the efficiency of selection operations

☒

d.
Sorting helps in finding duplicates quickly

Question 9

Complete
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Flag question

Question text

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

Question 9 Answer

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

Question 10

Complete
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Flag question

Question text

What is a significant characteristic of Bubble Sort?

Question 10 Answer

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

Question 11

Complete
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Question text

Which built-in Python function is used to sort data?

Question 11 Answer

- ☒
- a.
sorted()
- ☐
- b.
order()

- ☐
- c.
sort()
- ☐
- d.
arrange()

Question 12

Complete
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Question text

Which algorithm typically follows a divide-and-conquer structure?

Question 12 Answer

☐

a.
Linear Search

☒

b.
Merge Sort

☐

c.
Binary Search

☐

d.
Bubble Sort

Question 13

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 13 Answer

☐

a.
Extraction

☐

b.
Distribution

☒

c.

Insertion



d.

Selection

Question 14

Complete
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Question text

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

Question 14 Answer



a.

Bubble Sort



b.

Linear Search



c.

Merge Sort



d.

Quick Sort

Question 15

Complete
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Question text

The process of placing or rearranging a collection of elements into a particular order is known as

Question 15 Answer



a.

Searching



b.

Merging



c.

Rearranging

d.

Sorting

Finish review

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