



CS23336-Introduction to Python Programming

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Time taken 8 mins 2 secs

Question 1

Complete

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Question text

What is a significant characteristic of Bubble Sort?

Question 1 Answer

☐

a.

It divides the list into sublists

☐

b.

It uses the heap data structure

☐

c.

It recursively sorts subproblems

☒

d.

It bubbles up the largest element in each pass

Question 2

Complete

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Question text

Which of the following is not an in-place sorting algorithm?

Question 2 Answer

☒

a.

Merge sort

☐

b.

Quick sort

☐

c.

Selection sort

☐


d.

Heap sort

Question 3

Complete

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Question text

What is the primary benefit of using sorting algorithms in programming?

Question 3 Answer



a.

Provides a basis for other algorithms to work efficiently



b.

Makes code execution slower



c.

Makes data harder to manage




d.

Decreases the efficiency of algorithms

Question 4

Complete

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Question text

Very slow way of sorting is _____

Question 4 Answer



a.

Bubble sort



b.

Heap sort



c.

Insertion sort




d.

Quick sort

Question 5

Complete

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Question text

In Merge Sort, what happens after the two halves of the list are sorted?

Question 5 Answer



a.

They are discarded



b.

They are combined to form a single sorted list



c.

They are compared element by element




d.

They are split again into smaller sublists

Question 6

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 6 Answer



a.

Distribution



b.

Extraction



c.

Selection




d.

Insertion

Question 7

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 7 Answer



a.

Rearranging



b.

Sorting



c.


Merging



d.

Searching

Question 8

Complete
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Question text

What is sorting in the context of computer science?

Question 8 Answer

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

Question 9

Complete
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Question text

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

Question 9 Answer

- ☐ a.
It requires external libraries
- ☐ b.
It only works with integer arrays
- ☐ c.
It is less efficient than custom sorting algorithms
- ☒ d.
It sorts data out of the box efficiently

Question 10

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 10 Answer

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

Question 11

Complete
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Question text

Which of the following best describes the process of Merge Sort?

Question 11 Answer

- ☒ a.
It divides the list into two halves, sorts each half, and then merges them
- ☐ b.
It builds a sorted array one element at a time
- ☐ c.
It repeatedly finds the minimum element and moves it to the sorted part of the list
- ☐ d.
It compares adjacent elements and swaps them if necessary

Question 12

Complete
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Question text

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

Question 12 Answer

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

Question 13

Complete
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Question text

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

Question 13 Answer

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

Question 14

Complete
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Question text

What type of problems can sorting help solve efficiently?

Question 14 Answer

- ☐
- a.
Selection
- ☒
- b.
All of the above
- ☐
- c.
Duplicates
- ☐
- d.
Searching

Question 15

Complete
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Question text

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

Question 15 Answer

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

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