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CS23336-Introduction to Python Programming

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Question 1

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 1 Answer

a.
It requires external libraries

b.
It only works with integer arrays

c.
It sorts data out of the box efficiently

d.
It is less efficient than custom sorting algorithms

Question 2

Complete
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Question text

Why is sorting important for selection operations?

Question 2 Answer

a.
It slows down the process

b.
It complicates the selection of items

c.
It makes it easier to select items based on their relationship to the rest of the items

d.
It makes the data unsorted

Question 3

Complete
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Flag question

Question text

How does Merge Sort achieve its efficiency?

Question 3 Answer

a.
By sorting data in a single pass

b.
By comparing elements sequentially

c.
By breaking the input into smaller parts and merging them

d.
By using the bubble-up method

Question 4

Complete
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Flag question

Question text

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

Question 4 Answer

a.
order()

b.
sort()

c.
sorted()

d.
arrange()

Question 5

Complete
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Question text

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

Question 5 Answer

a.
Binary Search

b.
Merge Sort

c.
Linear Search

d.
Bubble Sort

Question 6

Complete
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Question text

What does the Bubble Sort algorithm primarily focus on during each pass?

Question 6 Answer

a.
Sorting the entire list in one pass

b.
Bubbling up the smallest element

c.
Dividing the list into halves

d.
Bubbling up the largest element to its correct position

Question 7

Complete
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Question text

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

Question 7 Answer

a.
Sorting helps in finding duplicates quickly

b.
Sorting decreases the efficiency of selection operations

c.
Sorting makes it harder to search for items

d.
Sorting is rarely used in programming

Question 8

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 8 Answer

a.
Bubble Sort

b.
Merge Sort

c.
Insertion Sort

d.
Quick Sort

Question 9

Complete
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Question text

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

Question 9 Answer

a.
It allows for faster searching

b.
It makes the search operation slower

c.
It increases the number of comparisons needed

d.
It has no effect on the search operation

Question 10

Complete
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Question text

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

Question 10 Answer

a.

Merge sort

b.

Quick sort

c.

Heap sort

d.

Selection sort

Question 11

Complete
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Question text

Algorithm design technique used in merge sort algorithm is

Question 11 Answer

a.

Dynamic programming

b.

Backtracking

c.

Greedy method

d.

Divide and conquer

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.
Linear Search

b.
Bubble Sort

c.
Binary Search

d.
Merge Sort

Question 13

Complete
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Question text

Very slow way of sorting is_____

Question 13 Answer

a.

Quick sort

b.

Insertion sort

c.

Bubble sort

d.

Heap sort

Question 14

Complete
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Question text

_____ explain how an algorithm will perform when the input grows larger.

Question 14 Answer

a.

Sorting

b.

Merging

c.

Searching

d.

Complexity

Question 15

Complete
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Question text

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

Question 15 Answer

a.
They are compared element by element

b.
They are combined to form a single sorted list

c.
They are split again into smaller sublists

d.
They are discarded

Finish review