



# CS23336-Introduction to Python Programming

**Started on** Monday, 4 November 2024, 1:54 PM

**State** Finished

**Completed on** Monday, 4 November 2024, 2:04 PM

**Time taken** 10 mins 23 secs

## Question 1

Complete

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### Question text

In \_\_\_\_\_ checks the elements of a list, one at a time, without skipping any element.

Question 1 Answer

☐

a.

Binary search

☐

b.

Linear search

☒

c.

Both (1) & (3)

☐

d.

Hash search

## Question 2

Complete

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### Question text

What type of search would be most appropriate for finding an element in a list that is frequently updated?

Question 2 Answer

☐

a.

Linear search

☒

b.

Hash search

☐

c.

Interpolation search

☐


d.

Binary search

### Question 3

Complete

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#### Question text

Which of the following is a conventional searching technique?


Question 3 Answer

- ☒ a. Linear search
- ☐ b. Hashing
- ☐ c. Binary search
- ☐ d. Dynamic search

### Question 4

Complete

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#### Question text

In which situation is linear search more efficient than binary search?


Question 4 Answer

- ☐ a. When the list is large and unsorted
- ☒ b. When the list is small and unsorted
- ☐ c. When the list is small and sorted
- ☐ d. When the list is large and sorted

### Question 5

Complete

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#### Question text

In binary search, how is the middle element determined?


Question 5 Answer

- ☐ a. By comparing each element sequentially
- ☐ b. By starting from the first element
- ☐ c. By using a hash function
- ☒ d. By dividing the list length by two

## Question 6

Complete

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### Question text

What is the time complexity of binary search in the worst case?

Question 6 Answer

☒

a.

$O(\log n)$

☐

b.

$O(1)$

☐

c.

$O(n)$

☐


d.

$O(n \log n)$

## Question 7

Complete

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### Question text

What is the advantage of binary search over linear search?

Question 7 Answer

☒

a.

Binary search has a lower time complexity on large, sorted lists

☐

b.

Binary search can find multiple instances of the target element

☐

c.

Binary search does not require dividing the list

☐


d.

Binary search works on unsorted lists

## Question 8

Complete

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### Question text

Given an array  $arr = \{45, 77, 89, 90, 94, 99, 100\}$  and  $key = 99$ ; what are the mid values(corresponding array elements) in the first and second levels of recursion?

Question 8 Answer

☒

a.

90 and 99

☐

b.

89 and 99

☐

c.

90 and 94

☐


d.

89 and 94

## Question 9

Complete

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### Question text

In the context of searching, what is a successful search?

Question 9 Answer

☐

a.

When the list is sorted

☐

b.

When the list contains duplicate elements

☒

c.

When the element is found in the list

☐


d.

When the search algorithm finishes

## Question 10

Complete

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### Question text

Which of the following statements about linear search is true?

Question 10 Answer

☐

a.

Linear search is more efficient than binary search on large lists.

☐

b.

Linear search divides the list into halves.

☒

c.

Linear search can be applied to both sorted and unsorted lists.

☐


d.

Linear search requires the list to be sorted.

## Question 11

Complete

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### Question text

What is searching in the context of computer science?

Question 11 Answer

☐

a.

Sorting elements in a list


☐

b.

Inserting elements into a list

- ☒ c.  
Determining whether an element is present in a list
- ☐ d.  
Deleting elements from a list

## Question 12

Complete  
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### Question text

In which type of search is the list divided into smaller sublists during the search process?

Question 12 Answer

- ☒ a.  
Binary search
- ☐ b.  
Sequential search
- ☐ c.  
Linear search
- ☐ d.  
Hash search

## Question 13

Complete  
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☐  Flag question


### Question text

In binary search, if the target element is less than the middle element, where does the search continue?

Question 13 Answer

- ☐ a.  
In the right sublist
- ☐ b.  
In the entire list
- ☒ c.  
In the left sublist
- ☐ d.  
At the beginning of the list

## Question 14

Complete  
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### Question text


Given an array  $arr = \{45, 77, 89, 90, 94, 99, 100\}$  and  $key = 100$ ; What are the mid values(corresponding array elements) generated in the first and second iterations?

Question 14 Answer

- ☐ a.  
90 and 100

- ☐ b.  
89 and 94
- ☒ c.  
90 and 99
- ☐ d.  
94 and 99

## Question 15

Complete  
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### Question text

\_\_\_\_\_ sort is the simplest sorting algorithm that works by repeatedly swapping the adjacent elements in case they are unordered in n-1 passes.

Question 15 Answer

- ☒ a.  
Bubble
- ☐ b.  
Selection
- ☐ c.  
Complexity
- ☐ d.  
Insertion

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