

1. What exactly is []?

Ans.) a python list

2. In a list of values stored in a variable called spam, how would you assign the value 'hello' as the third value? (Assume [2, 4, 6, 8, 10] are in spam.)

Ans.) `spam[2]='hello'`

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

3. What is the value of `spam[int(int('3' * 2) / 11)]`?

Ans.) 'd'

4. What is the value of `spam[-1]`?

Ans.) 'd'

5. What is the value of `spam[:2]`?

Ans.) 'a','b'

Let's pretend bacon has the list [3.14, 'cat', 11, 'cat', True] for the next three questions.

6. What is the value of `bacon.index('cat')`?

Ans.) 1

7. How does `bacon.append(99)` change the look of the list value in bacon?

Ans.) [3.14, 'cat', 11, 'cat', True, 99]

8. How does `bacon.remove('cat')` change the look of the list in bacon?

Ans.) [3.14, 'cat', 11, True, 99]

9. What are the list concatenation and list replication operators?

Ans.) The + operator joins the two list

The \* operator replicates the elements in the list.

10. What is difference between the list methods `append()` and `insert()`?

Ans.) The only difference between `append()` and `insert()` is that `insert()` allows us to add a specific element at a specified index of the list unlike `append()` where we can add the element only at the end of the list.

11. What are the two methods for removing items from a list?

Ans.) There are three ways in which you can Remove elements from List:

- Using the remove() method
- Using the list object's pop() method
- Using the del operator

12. Describe how list values and string values are identical.

Ans.) Both lists and strings can be passed to len(), have indexes and slices, be used in for loops, be concatenated or replicated, and be used with the in and not in operators

13. What's the difference between tuples and lists?

Ans.) Lists are mutable; they can have values added, removed, or changed. Tuples are immutable; they cannot be changed at all. Also, tuples are written using parentheses, ( and ), while lists use the square brackets, [ and ].

14. How do you type a tuple value that only contains the integer 42?

Ans.) (42)

15. How do you get a list value's tuple form? How do you get a tuple value's list form?

Ans.) lets suppose the list is l and tuple is t , then the desired outputs will be -

tuple(l) and list(t)

16. Variables that "contain" list values are not necessarily lists themselves. Instead, what do they contain?

Ans.) They contain references to list values.

17. How do you distinguish between copy.copy() and copy.deepcopy()?

Ans.)

- A shallow copy constructs a new compound object and then (to the extent possible) inserts references into it to the objects found in the original.
- A deep copy constructs a new compound object and then, recursively, inserts copies into it of the objects found in the original.
- If changes are made into a shallowcopy , they get reflected in the original list too but if the changes are made in a deepcopy then the changes are not reflected in the original list.