1. What exactly is []?

Ans: -

A list is created by placing elements inside square brackets [], separated by commas.

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 = [2,4,6,8,10]

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, 11, ‘cat’, True, 99]

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

Ans: -

The list concatenation operator is an operation where the elements of one list are added at the end of another list. The operator for the list concatenation is ‘+’.

The list replication operators is an operation where the elements of one list is replicated at the end of same list. The operator for the list replication is ‘\*’.

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

Ans: -

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

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

Ans: -

‘Remove()’ it remove the very first given element matching from the list.

‘Pop()’ it remove an element from the list based on the index given.

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

Ans: -

The similarity between lists and strings is that both are sequences. The difference between them is that firstly, lists are mutable but strings are immutable. Secondly, elements of a list can be of different types whereas a string only contains characters that are all of string type.

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

Ans: -

The difference between the tuples and lists is that while the tuples are immutable objects the lists are mutable. It means that tuples cannot be changed while the lists can be modified.

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

Ans: - Tuples are written using parentheses.

Tuple = (42)

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

Ans: -

List value’s tuple form List = [1,2,3,4,5,6]

tuple(list) -----🡪 (1,2,3,4,5,6)

tuple value’s list form tuple = (12,True,"dsdfsd")

list(tuple) ---🡪 [12, True, ‘dsdfsd’]

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

Ans: -

They contain references to list values rather than this list values themselves.

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

Ans:-

A shallow copy (copy.copy()) constructs a new compound object and then inserts references into it to the objects found in the original. A deep copy (copy.deepcopy()) constructs a new compound object and then, recursively, inserts copies into it of the objects found in the original.