1. What exactly is []?

**Ans 1 :** [] stands for empty list.

1. 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 2 :** 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.

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

Ans 3 : d

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

Ans 4: d

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

Ans 5 : [‘a’,’b’]

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

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

Ans 6 : 1

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

Ans 7 : [3.14, 'cat', 11, 'cat', True, 99]

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

Ans 8: [3.14, 11, 'cat', True]

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

Ans 9 : **List concatenation operators are**:

1. ‘+’ => lst1 + lst2
2. extend() => lst1.extend(lst2)
3. ‘\*’ operator => res = [\*lst1,\*lst2]

**List replicator operator**

1. ‘\*’ this operator is use to replicate the list multiple times

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

**And 10:** append() : This method adds the new element at the end of the list .

insert() : This method adds the element at specific position in the list.

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

**And 11:** remove() , pop()

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

**Ans 12.** Both list and string are ordered collection of characters.

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

**Ans 13 :**

|  |  |
| --- | --- |
| **Tuple** | **List** |
| Items in Tuples are present in () | Items in Tuples are present in [] |
| Tuples are immutable | List are mutable |
| It consumes less memory then list | It consumes more memory |
| Iterations are faster | Iterations are time consuming |

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

**Ans 14 :**  tuple\_value = (42,)

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

**Ans 15:** To convert list in tuple we need to use tuple() function and pass list in the function.

For eg : list\_val = [1,2,4,6]

tuple\_val = tuple(list\_val)

To convert tuple into list we need to use list() function and pass tuple in it.

For eg : tuplue\_val = (2,5,8,0)

list\_val = list(tuplue\_val)

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

**Ans 16.:** They contains reference to List value.

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

**Ans 17:**

**Deep Copy :** The deep copy is the copy of an object that is completely independent of the original object. Which means if any changes are made in the copy that will not affect the original object.

**Copy:** It create the new object which stores the reference of the original object.