1. What exactly is []?

Ans. The empty list value, which is a list value that contains no items. This is similar to how '' is the empty string value.

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. spam.insert(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. spam[int(int('3' \* 2) / 11)]

spam[int(int(‘33’)/11)]

spam[int(33/11)]

spam[3]=d {because spam=['a', 'b', 'c', 'd']}

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

Ans.spam[-1]=d

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

Ans. spam[:2]=[‘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. 1

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

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

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

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

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

Ans. The operator for list concatenation is +, while the operator for replication is \*. (This is the same as for strings.

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

Ans. While append() will add values only to the end of a list, insert() can add them anywhere in the list.

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

Ans. list.pop() and list.remove()

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

Ans. Both strings and lists have lengths: a string's length is the number of characters in the string; a list's length is the number of items in the list. Each character in a string as well as each item in a list has a position, also called an index.

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

Ans.

| SR.NO. | LIST | TUPLE |
| --- | --- | --- |
| 1 | Lists are mutable | Tuples are immutable |
| 2 | The implication of iterations is Time-consuming | The implication of iterations is comparatively Faster |
| 3 | The list is better for performing operations, such as insertion and deletion. | Tuple data type is appropriate for accessing the elements |
| 4 | Lists consume more memory | Tuple consumes less memory as compared to the list |
| 5 | Lists have several built-in methods | Tuple does not have many built-in methods. |
| 6 | The unexpected changes and errors are more likely to occur | In tuple, it is hard to take place. |

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

Ans. (42,) (The trailing comma is mandatory.)

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

Ans. The tuple() and list() functions, respectively

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

Ans. Variables will contain references to list values rather than list values themselves. But for strings and integer values, variables simply contain the string or integer value.

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

Ans. .copy() create reference to original object. If you change copied object - you change the original object. .deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.