1. What exactly is []?

Ans: [] means empty list value in Python, 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.)

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

Ans: spam[2] = ‘hello’ ( as the index starts from 0 the third value in the list is at index 2)

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

Ans: spam[3]= ‘d’ (Note that '3' \* 2 is the string '33', which is passed to int() before being divided by 11 and then comes out to be 3 if done (33/11=3). Expressions can be used wherever values are used.)

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

Ans: ‘d’ (Negative index starts from end)

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

Ans: [‘a’,’b’] (if no value is written as in from where to start it is considered as to start from 0 and the last index is not considered its always till n-1 index)

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: List concatenation is + and list replication is \*. This is the same as for strings.

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

Ans: append() add the value at the end of the list. Insert() add the values anywhere in the list.

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

Ans: The del statement and the remove() list method are two ways to remove values from a list.

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

Ans: Identical between list values and string values are :

* Both lists and strings can be passed to len()
* Both have indexes and slices and used in for loops, be concatenated and replicated.
* Both can be used in ‘in’ and ‘not in’ operators.

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

Ans: Difference between list and tuples are :

* Lists are mutable (they can have values added, removed, or changed) whereas Tuples are immutable (they cannot be changed at all).
* List are written in [] and tuples are written in ().

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

Ans: (42,) (the trailing comma is mandatory in it)

1. 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 – tuple() function

tuple value's list form – list() function.

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

Ans: Variable can also contain the reference to the list values if it does not contain list themselves.

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

Ans: The copy.copy() function will do a shallow copy of a list, while the copy.deepcopy() function will do a deep copy of a list. That is, only copy.deepcopy() will duplicate any lists inside the list.