1. What exactly is []?

Ans: Empty 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. spam[int(int('3' \* 2) / 11)]

= spam[int(int('33’) / 11)]

= spam[int(33 / 11)]

= spam[3]

= ‘d’

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

Ans. Spam[-1] = ‘d’

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

Ans: spam[:2] = [‘a’ , ‘b’ , ‘c’ ]

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. bacon.index('cat') = 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. Two lists can be concatenated by using ‘+’ .

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

Ans. Append() adds the element at the end of a list but insert() allow us to add any element at any desired index in the list.

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

Ans. Pop() and remove().

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

Ans. List and string objects are callable by their index.

For example:

list = [1,2,3,4]

list [2] = 3

string = ‘1234’

string[2] = ‘3’

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

Ans. Tuples are immutable but list are mutable.

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

Ans. Tuple = (42)

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

Ans. We can use ttype casting method.

For example:

list = [1,2,3,4]

tuple = tuple(list)

tuple = (1,2,3,4)

l1 = list(tuple)

l1 = [1,2,3,4]

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

Ans.

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

Ans. copy() create reference to original object. If we change copied object - we 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.