1. What exactly is []?

Sol – Its empty list value, that contains no items.

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.)

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

Sol - Spam[2] = “hello”

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

Sol – spam[3] = ‘d’

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

Sol – spam[-1] = spam[3] = ‘d’

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

Sol – spam = [‘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')?

Sol – 1

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

Sol- bacon = [3.14, 'cat,' 11, 'cat,' True, 99]

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

Sol - [3.14, 'cat,' 'cat,' True, 99]

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

Sol - Operator for list concatenation is +

Operator for list replication operators is \*

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

Sol - append() - adds value atthe end of the list

insert() - can add value anywhere

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

Sol – remove() and delete()

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

Sol - Both are sequences having ordered collection of characters

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

Sol- List is mutable, tuple is immutable

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

Sol - By putting a trailing comma after 42

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

Sol – tuple() and list() function are used for it

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

Sol – Reference to list value.

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

Sol - copy.copy() - does shallow copy of list

copy.deepcopy() - does deep copy of list, used to copy any list inside the list