1. What exactly is []?

Sol: these are square brackets that are used for the declaration of the lists.

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.)

Sol: 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)]?

Sol: ‘d’

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

Sol: ‘d’

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

Sol: ['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: [3.14, 'cat', 11, 'cat', True, 99] 99 added a the last of list.

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

Sol: [3.14, 11, 'cat', True, 99] it can remove the first cat element.

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

Sol: list concatenation operators : +, extend()

List replication operators: \*,+

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

Sol: append() adds an item to the end of a list, whereas . insert() inserts and item in a specified position in the list.

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

Sol: remove(), pop()

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

Sol: 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?

Sol: tuples are immutable where as lists are mutable.

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

Sol: (42,)

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

Sol: tuple(list), list(tuple)

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

Sol: Variables will contain references to list values rather than list values themselves.

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

Sol: copy.copy() create reference to original object. If you change copied object - you change the original object. copy.deepcopy() creates new object and does real copying of original object to new one.