1. What exactly is []?

**Ans:** Empty list. It is the list value with 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.)

**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:** ‘d’

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

**Ans:** ‘d’

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

**Ans:** ['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')?

**Ans:** (Note: syntax error in list. ‘cat,’ 🡪 ‘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]

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

**Ans:** List concatenation operator is **+**

List replication operator is **\***

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

**Ans:** List method append() adds value only at the end of the list. In insert() the value can be added anywhere in the list.

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

**Ans: remove()**, **pop()**, **del** statement.

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

**Ans:** Both lists and strings are iterable (can be used in for loops), can be passed to len(), have indexes and slices, can be concatenated or replicated, and be used with the **in** and **not** in operators.

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

**Ans:** Lists are mutable. The values in lists can be changed, removed and can add new values. In lists values are written inside square brackets [ ].

Tuples are immutable. The values in tuples cannot be changed. In tuples values are written inside parentheses ( ).

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

**Ans:** (42,)

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

**Ans:** tuple() converts to tuple form. list() to convert to list form.

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

**Ans:** They contain references to list values.

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.