1. What exactly is []?

[] means an 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.)

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)]?

‘d’

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

‘d’

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

[‘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')?

1

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

bacon.append(99) appends 99 to bacon

as [3.14, 'cat,' 11, 'cat,' True, 99]

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

Removes the 1st appeared ‘cat’ from the list. As [3.14, 11, 'cat,' True, 99]

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

list concatenation operator 🡪 +

list replication operator 🡪 \*

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

append() appends the element only at the last.

insert() inserts the element where as mentioned.

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

Del

Remove()

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

List values and string values are identical by the following ways

* Used in loops
* Can find length with len()
* Replication & concatenation
* Has slices and indices
* Used with in and not operators

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

|  |  |
| --- | --- |
| **LIST** | **TUPLES** |
| Mutable | Immutable |
| Written in square brackets “[]” | Written in parenthesis “()” |
| Elements can be modified | Elements cannot be modified |

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

T = (42,)

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

**List value’s tuple form**

list = [1,2,3]

tup = tuple (list)

**Tuple value's list form**

tup = (1,2,3)

list = list (tup)

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

Variables consists of reference to list value.

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

copy.deepcopy() does deep copy (i.e.,) it duplicates any list inside the list whereas copy.copy() does shallow copy.