1. What exactly is []?

**Answer:** [] is uses to define 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.)

**Answer:** spam.insert(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)]?

**Answer:** d

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

**Answer:** d

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

**Answer:** ['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')?

**Answer:** 1

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

**Answer:** 99 will be appended at the end of the list

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

**Answer:** ‘cat’ at index 1 will be removed

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

+ can be used as list concatenation operator

\* can be used as list replication operator

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

**Answer:**

append() is used to add an element at the end of the list.

insert() is used to add/insert an element at a specified index

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

remove(), pop()

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

List and string both are sequence data type.

List is a collection of heterogeneous data element. Whereas string is a collection of characters.

Elopements of both list and string can be accessed using index.

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

List is mutable and tuples are immutable.

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() and tuple() are two built in function can used for these purposes. list() can convert any sequence data type to list. Similarly the tuple() function can convert sequence data type to tuple.

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

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

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

A copy or shallow copy constructs a new compound object and then (to the extent possible) inserts references into it to the objects found in the original.

A deep copy constructs a new compound object and then, recursively, inserts copies into it of the objects found in the original.