1. What exactly is []?

[] is a list: A mutable collection of values, usually (but not necessarily) of the same type.

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.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)]?

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?

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

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

[3.14, 11, 'cat', True]

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

The operator for list concatenation is +, while the operator for replication is \*. (This is the same as for strings.)

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

append() adds a new value in the end of the list while insert() adds a new value at the specified index position.

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

**pop** : will remove item from specified index position, list.pop(index position)

**remove**: will remove specified value from the list, list.remove(value)

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

Strings and list are both sequence types, so called because they behave like a sequence - an ordered collection of objects.

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

tuples are immutable objects while the lists are mutable. This means that tuples cannot be changed while the lists can be modified. Tuples are more memory efficient than the lists. Lists have more built-in methods.

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

(42,)

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

tuple(list) will give list value's tuple form

list(tuple) will give tuple value's list form

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

Variable is a reserved memory location to store values. Variables that contain list, store list in memory location.

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

A 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.