1. What exactly is []?

It is a way of creating list in python

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 will be the value

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

d will be the value

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

['a', 'b'] will be the value

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')?

Value will be 1

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

[3.14, 'cat', 11, 'cat', True,99] will be the values in list.

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

[3.14, 11, 'cat', True] will be the updated list.

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

The operator for list concatenation is + and replication is \*

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

append() method adds a value to the end of the list.

insert() method takes two arguments index and value and allows us to add value to a specific index in a list.

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

remove() and pop() are the methods.

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

Both list values and string values can be accessed through index.

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

tuples are immutable and lists are mutable.

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

Print(t) if the tuple name is t we can get 42 as a value.

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

L=tuple([2,3,4,5]) – will convert list to tuple

L=list((2,3,4,5)) – will convert tuple to list

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

Variables contain references to the list.

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

copy.copy() creates a shallow copy of an object which references to the original object which means any change in the original object will be reflected in the shallow copy.

Copy.deepcopy() creates and object then copies all the values from the original object into it in this case any change in the original copy will not be reflected here.