1. What exactly is []?

**Ans:** It is denote a “list” data structure.

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’

Evaluatoin:

int(‘3’\*2) = 33

int(int(‘3’\*2)/11) = 33/11 = 3

spam[int(int(‘3’\*2)/11)] = spam[3] = ‘d’

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

**Ans:** ‘d’

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

**Ans:** ‘c’

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:** 1

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

**Ans: [3.14,’cat’,11,’cat’,True]**

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:** Append method add an element at the end of the list where as in insert method, we can specify an element and index at which the element has to be inserted.

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

**Ans:** remove and pop

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

**Ans:** Both list and string values are iterable.

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

**Ans**: The tuples are immutable objects the lists are mutable. This means that tuples cannot be changed while the lists can be modified.

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

**Ans:** a = (42,)

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

**Ans: tuple(alist) , list(atuple)**

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

**Ans:** They may contain string value.

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

**Ans:** In copy.copy() creates a new object which stores the reference of the original elements. So, a shallow copy doesn't create a copy of nested objects, instead it just copies the reference of nested objects. Whereas copy.deepcopy() creates a new object with independent reference.