1. What exactly is []?

**Ans: 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.)

**Ans: spam.insert(2,'hello') or 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’**

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

**Ans: ‘d’**

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

**Ans: [‘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')?

**Ans: 1**

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

**Ans: 99 would be appended at the last of the list bacon: [3.14, 'cat', 11, 'cat', True, 99].**

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

**Ans: It would remove the first ‘cat’ from the list bacon: [3.14, 11, 'cat', True].**

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

**Ans: List concatenation operator: +**

**List replication operator: \***

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

**Ans: append(a) method insert a value to the end of the list. While insert(n,a) method inserts the a value to the nth index of the list pushing the other elements of the list by one index position from nth index.**

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

**Ans: pop() method and remove() method.**

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

**Ans: Lists are similar to strings, which are ordered collections of characters. They both are iterable, indexed. They have common slicing methods and other functions are very similar.**

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

**The key difference between the tuples and lists is that while 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: (42,)**

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

**Ans: By using tuple() and list() method.**

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

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

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

**Ans: copy.copy() does a shallow copy of ‘copy’ which means if you make changes to ‘copy’, then those changes will also will be reflected in the copy. This is because both ‘copy’ and copy.copy() are referencing to the same location.**

**While copy.deepcopy() does a deep copy, meaning it will create a copy of ‘copy’ in a new location. So, when any changes are made, it does not affect the other.**