1. What exactly is []?

**Ans : [] represents the list the data 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.)

**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’**

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

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

**Ans : [3.14, 11, 'cat', True, 99]**

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

**Ans : + is concatenation and \* is list replication operators.**

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

**Ans: append() is for adding elements at last of list, insert() can be used to add elements at any position in the list.**

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

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

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

**Ans : Lists and strings are similar both are ordered collection of elements, in string we have characters as it’s elements and List can contain any type of element.**

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

**Ans : There are couple of difference between tuple and list.**

1. **List is mutable and tuples are immutable**
2. **List takes more memory to store and tuples takes less memory**
3. **List have more built in methods whereas tuples have less methods**

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

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

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

**Ans : We can convert tuples into list with list(tuple) function and tuples into list with tuple(list).**

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

**Ans : list class**

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

**Ans : copy.copy() creates the pointer the same memory location and copy.deepcopy() creates another copy of the value and store into another memory location.**