1. What exactly is []?

**Ans1.** The empty list value, which is a list value that contains no items. This is similar to how '' is the empty string value.

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.)

**Ans2**. 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)]?

**Ans3**. ‘d’

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

**Ans4.** The indexes are count from the end. [‘d’]

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

**Ans5**. [‘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')?

**Ans6.** 1

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

**Ans7.** [3.14, 'cat,' 11, 'cat,' True,99]

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

**Ans8.** [3.14, ' 11, 'cat,' True]

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

**Ans9.** The operator for list concatenation is +, while the operator for replication is \*

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

**Ans10**. While append() will add values only to the end of a list, insert() can add them anywhere in the list.

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

**Ans11**. The del statement and the remove() list method are two ways to remove values from a list.

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

**Ans12**.Both lists and strings can be passed to len(), have indexes and slices, be used in for loops, be concatenated or replicated, and be used with the in and not in operators.

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

**Ans13**. The tuple’s are immutable and the list is mutable.

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

**Ans14.** (42,)

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

**Ans15.** The tuple() and list() functions, respectively

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

**Ans16**. They contain references to list values.

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

**Ans17.** A shallow copy is a copy of an object that stores the reference of the original elements. It creates the new collection object and then occupying it with reference to the child objects found in the original. A deep copy is a process where we create a new object and add copy elements recursively. We will use the deepcopy() method which present in copy module.