1. What exactly is []?

**Ans1**: [] represents empty list that contain no items.

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.)

**And2**: 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**: Result will be ‘d’.

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

**Ans4**: Result will be ‘d’

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

**Ans5**: Result will be [‘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**: It will append the numeric value 99 at the end of the list and the list will looks like [3.14, 'cat', 11, 'cat', True, 99]

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

**Ans8**: It will remove the first instance of element with value ‘cat’ from the list and the list will looks like [3.14, 11, 'cat', True, 99]

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**: append() list method will append or add values to the end of the list and insert() list method will insert or add values anywhere in the list.

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

**Ans11**: del keyword and two other list methods - remove() and pop() are used to remove items from a list. pop() method also stores removed item in a specified variable.

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

**Ans12**: List and string values are identical in a way that we can use them with ‘for’ loop that uses ‘in’ or ‘not in’ operator. Also, both can be concatenated, replicated, referenced through indexes and so can be sliced. We can also check the length of list and string with len() function.

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

**Ans13**: The very basic difference between tuples and lists is that tuples are immutable and lists are mutable – meaning tuples cannot be changed or modified once created / defined whereas lists can be changed by adding, modifying or removing its elements. Lists are represented by square brackets [] and tuples are represented by parentheses ().

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**: list() and tuple()

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

**Ans16**: They contain references for all the values in the list.

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

**Ans17**: When list is copied with copy.copy() method, it does a shallow copy – which means any changes made to the one will also reflect in another. On the other hand, copy.deepcopy() method will create a copy of the list which will not have any link back to the original list. So it will be a separate list altogether.