1. What exactly is []?

**Ans: A list is a built-in data type in python which a used to store a collection of data.**

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 because python only returns the index of first ‘cat’.**

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

**Ans: 99 is added at the end of the list. [3.14, 'cat', 11, 'cat', True, 99]**

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

**Ans: 1st ‘cat’ is removed from the list [3.14, 11, 'cat', True]**

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

**Ans: + is the list concatenation operator and \* is the list replication operator.**

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

**Ans: append() adds an item to the end of the list whereas insert() adds the item to any specified position.**

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 sequences and python assigns internal index for each element starting from 0.**

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

**Ans: Tuples are immutable, and lists are mutable.**

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: To convert a list to tuple, we use tuple() function and to convert tuple to list, we use list() function.**

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

**Ans: Variables that contain list values actually contains pointers to each item in the list.**

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

**Ans: copy.copy() creates a new object and inserts references to the original items into it whereas copy.deepcopy() creates a new object and inserts references to a copy of each item in original object.**