1. What exactly is []?

**Ans: This is notation of list. The square bracket is used to declare the 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 : We can assign the value by list[index\_number] = value**

**spam = [2, 4, 6, 8, 10]**

**spam[2] = "Hello"**

**print(spam)**

**O/P = [2, 4, 'Hello', 8, 10]**

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 : First the above list is having syntax error in both cat value. I have corrected it and further processed .**

**The index of cat is 1**

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

**Ans : It will be add the value 99 into next index of last index the output will be**

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

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

**Ans : it will remove the first cat value index from the list the sample output is**

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

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

**Ans : for concatenation we can use + symbol , for replication we can use \***

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

**Ans : The append() function will append values at the end of a list, insert() function can add anywhere in the list.**

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

**Ans: one is del and another one is remove() function**

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

**Ans : A list is a sequential collection of Python data values, where each value is identified by an index. ... Lists are similar to strings, which are ordered collections of characters, except that the elements of a list can have any type and for any one list, the items can be of different types.**

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

**Ans : List uses [] bracket, we can update and delete the values of list because it is mutable , tuple uses () bracket , we cannot update the value because it is immutable**

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 : We can use list() and tuple() methods, list(tuple()) and tuple(list())**

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

**Ans : may be it will contain address of values**

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

**Ans : copy.copy() function will copy values and copy.deepcopy() will deepcopy the values**