1. What exactly is []?

**Ans: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: 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:**

**It will append 99 at last element of list.**

**[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 cat element from index position and rearrange indexes of list.**

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

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

**Ans:**

**When we want concatenate different list in series (one after another) we use list concatenation.**

**We use +, += for concatenation.**

**When we want to replicate same list as many times as we want we user replication.\*,\*= operator for replication.**

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

**Ans:**

**With help of append () method we can add element in list at last position of list.it will take one argument element.**

**With help of insert () we can add new element at last as well as at any index inside list. Insert () method will take two argument. First argument is index position, second argument is element which you want to insert. Element can be insert till last element of list not more than last index of list.**

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

**Ans:**

**pop(),remove()**

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

**Ans.**

**List and string are sequence type data type. Both support indexing. Indexing in string work on character of string and indexing in list work on elements. Both can be traverse with help of for loop. Both support slicing .Both support IN operator.**

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

**Ans:**

**Lists are mutable and tuples are immutable**.

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

**Ans:**

**A=(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 get list value from tuple by using list() function and tuple vale from list by using tuple().**

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

**Ans:**

**They may contains string,tuple,set,dictionary,integer.**

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

**Ans:**

**Copy.copy() :it will creates new and independent object and made reference to child object if found in originale object.**

**Copy.deepcopy():it will create new and independent object and also made copies of child object also.**

**So if we use copy.copy() for any obect,it will create new copy of parent ,so any change in parent object it does not reflect on copy object but if we have child object ,and we made any change in this original child object then that changes also reflect in copy object because copy function only create a new copy of original object but take references for all child object. copy.deepcopy() function create copies for both parent object and all child object.so if there is any change in parent and child it will not reflect on deepcopy object.**