1. What exactly is []?

**Ans: It is an empty 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:[3.14,’cat’,11,’cat’,True,99]**

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

**Ans:[3.14,11,’cat’,True,99]**

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

Ans:List concatenation is joining two or more list and making it as a single list

**Ex:L3=l1+l2+l4**

List replication is the copy of the same list

**Ex: l=c.copy()**

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

**Ans: Append will add the element at the end of the list**

**Insert will add the element at the the specified index**

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

**Ans:(i)pop (ii)remove**

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

**Ans:String is iterable and list values are also iterable and we can access the values using the slicing and the index positions**

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

**Ans:List are mutable where as tuples are immutable**

**()=tuple and []=list**

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

**Ans:t=(42)**

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

**Ans:(i) By the use of method tuple(list1)**

**(ii) By the use of method list(tuple1)**

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

**Ans:they can contain string, integer, floats, Boolean , tuples they can hold everything.**

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

**Ans:**

|  |  |
| --- | --- |
| **Deep copy copy.deepcopy** | **Shallow Copy copy.copy** |
| **In deepcopy we will be addressing the same memory location as that of the parent.** | **In shallow copy we will be creating the new memory location and we are storing the parent data in that.** |
| **If any changes done in the parent this will effect the child also** | **No changes will be done if there is change in parent** |