1. What exactly is []?

This is a list with No value i.e empty list

1. 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.)

spam=[2,4,6,8,10]  
spam[2]="hello"  
print(spam)

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

1. What is the value of spam[int(int('3' \* 2) / 11)]?

spam=['a', 'b', 'c', 'd']  
x=spam[int(int('3' \* 2) / 11)]  
x=spam[3]  
print(x)

answer is d

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

Answer is d

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

Arswer is ['a', 'b']

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.

1. What is the value of bacon.index('cat')?

1

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

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

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

[3.14, 11, 'cat', True]

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

**Concatenation** means joining two or more lists. In concatenation we use +(add) operator .

Replication means adding same content with in the list. In replication weuse \*(multiply) operator.

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

Both method is used add items in a list. The difference lies in the position where they add the items. In case of **append()** data automatically add itself in last position where as in **insert()** method we have the option to specify the position where we want to add items.

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

Methods -- Remove() , pop()

Keyword -- del

1. Describe how list values and string values are identical?

->Both are Iterable.

-> The similarity between Lists and Strings in Python is that both are sequences. The differences between them are that firstly, Lists are mutable but Strings are immutable. Secondly, elements of a list can be of different types whereas a String only contains characters that are all of String type.

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

Both are some what same the only difference is that **lists are Changeable** **while tuples are unchangeable**.

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

A=(42,)

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

## **->Using list() and tuple() methods**

-> Convert the tuple into a list to be able to change it and again converting list into tuple:

x = ("apple", "banana", "cherry")  
y = list(x)  
y[1] = "kiwi"  
x = tuple(y)  
  
print(x)

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

Variables will contain **references to list values** rather than list values themselves. But for strings and integer values, variables simply contain the string or integer value.

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

**copy()** create reference to original object. If you change copied object - you change the original object. . deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.