1. What exactly is []?

Ans: [] denotes an empty list, which contains no values. In practical situation, we create an empty list for appending during the course of program to achieve final result.

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.)

Ans: Through list index. The index starts from 0 from left.

spam[2]=”hello”

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)]?

Ans:

‘3’\*2 will produce 33

33/11=3

spam[3]=d

Therefore the value of the expression will be ‘d’

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

Ans: ‘d’

1. 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.

Probably the list values are wrong.

**Assuming the value: bacon=[3.14, 'cat', 11, 'cat', True] instead.**

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

Ans: 1

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

Ans: appearance will be like: **[3.14, 'cat', 11, 'cat', True, 99]**

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

Ans: The look of the list after executing of the above statement :

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

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

Ans:

List concatenation operator is +

Example:-

list1=[‘a’,’b’,’c’]

list2=[‘d’,’e’,’f’]

list3=list1+list2 # this will concatenate list1 and list2 and will produce [‘a’,’b’,’c’,’d’,’e’,’f’]

List replication operator is \*

Example:-

list1=[‘a’,’b’,’c’]

list2=[‘d’,’e’,’f’]

list3=list1+list2 # this will concatenate list1 and list2 and will produce [‘a’,’b’,’c’,’d’,’e’,’f’]

list1 = [1, 2, 3, 4]

list2 = list1 \* 3

This will replicate the contents of list1 three times and will store the result in list2 as

[1, 2, 3, 4, 1, 2, 3, 4, 1, 2, 3, 4]

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

Ans:

append() adds the element at the end of the list

insert() adds the element at any place of the list depending on the passing index with the calling function

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

Ans:

We can remove item from list through remove() and pop()

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

Ans:

They both store their data in sequence.

Indexing and slicing can be done on both

Both can be used in for loops

Both can be used with “in” or “not in” operator

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

Ans:

The key difference is values stored in the tuple can not be changed(immutable) but values stored in the list can be changed (mutable)

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

tuple\_1= (42,)

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

**List value of tuple**-

The tuple variable should be passed to list()

list\_val\_of\_tuple=list(tuple\_variable)

**Tuple value of List-**

The list variable should be passed to tuple()

tuple\_val\_of\_list=tuple(list\_variable)

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

Ans:

They contain reference to the list

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

Ans:

copy.copy(): this does shallow copy

copy.deepcopy(): this does deep copy, only this will duplicate the list inside any list.