1. What exactly is []?

Ans: This denotes a list which is empty.

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: spam[2] = ‘hello’ ---- if we want to replace the third value and insert hello

spam.insert[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: '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.

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: [.14, 'cat’, 11, 'cat', True, 99]

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

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

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

Ans: + operator is used to concatenate lists. And \* symbol is used to replicate lists.

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

Ans: Append method will insert the provided data/input/object in the end of the list. While Insert method will insert the data/input/object to the specified index/location in the list.

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

Ans: i. List.remove(name of index in string) or List.remove (list[index value]) method- Here we use remove method to eliminate the unrequired element in the list.

ii. List.pop(index value) - Pop method is used to remove the data by just passing index value of the element which needs to be eliminated.

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

Ans: Lists contain elements in a particular sequence in which it was defined. And String is also set of characters in a particular order.

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

Ans: i) Tuples are a fixed set of values they cannot be changed. While lists can be modified/manipulated.

ii) Tuples occupy less space and hence they are comparatively faster .

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

Ans: t1 = (42)

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

Ans: i) In order to convert list values into tuple—

New\_tup = tuple(List)

ii) In order to convert tuple values into list—

List = list(New\_tup)

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

Ans: The variables contain value location/reference.

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

Ans: copy.copy() aka shallow copy refers to the location of the value instead of creating a new one.

copy.deepcopy() creates replica of the value which needs to be copied.