1. What exactly is []?

***Ans****: [] denotes the empty list value. This list does not contain any items.*

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”*

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****: the output value of above statement will be: “d”.*

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

***Ans****: the output value of above statement will be: “d”.*

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

***Ans:*** *the output value of above statement will be: [“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**: *the output value of above statement will be: 1*

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

**Ans:** *the output value of above statement will be: ValueError: 99 is not in list*

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

**Ans**: *the output value of above statement will be: [3.14, 11, “cat”, True]*

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

***Ans:*** *+ is used as list concatenation operator and \* is use as list replication operators.*

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

***Ans****: append() adds the item at the ending of list and insert() put the item in well defined position in the list.*

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

***Ans****: items can be removed by pop() and remove() methods*

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

***Ans****: 1. Both list and string values are sequences i.e., ordered collection of elements.*

*2. both have lengths.*

*3. and also both have the position in index form.*

1. What is the difference between tuples and lists?

***Ans*** *1. Lists have dynamic characteristics whereas tuples have static characteristics, so mean list can be modified easily but tuples cannot be modified.*

*2. list is denoted in square brackets i.e. [] and tuples are denoted in curly bracket i.e. {}*

*3. list are mutable, and tuples are immutable.*

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

***Ans:*** *it can be done by giving the comma after 42. So, it will look like (42,)*

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

***Ans****: we have inbuilt function to get list value’s tuple form i.e tuple(list)*

*And also to get tuple values in list form I,e list(tuple)*

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

***Ans***: *Variable will contain references to list values. i.e ID numbers that python uses internally.*

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

***Ans****:* *the copy() returns a shallow copy of the list and deepcopy() of the list.*

*A shallow copy creates a new compound object and then references the objects contained in the original within it, which means it constructs a new collection object and then populates it with references to the child objects found in the original.*

*The changes made to a copy of an object do reflect in the original object.*

*And in another hand, deep copy creates a new compound object before inserting copies of the items found in the original into it in a recursive manner. It means first constructing a new collection object and then recursively populating it with copies of the child objects found in the original*

*So the changes made to a copy of the object do not reflect in the original object.*