1. What exactly is []?

Ans- This is an 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=[2,4,6,8,10]

spam[2]='hello'

print(spam)

[2, 4, 'hello', 8, 10] # This is value of updated list

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- [3.14, 'cat', 11, 'cat', True, 99] here append method will add 99 to the end of the list.

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

Ans- [3.14, 11, 'cat', True, 99] here remove method removes the first occurrence of element in the list

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

Ans- list concatenation operator is + and the replication operator is \*

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

Ans- append() method will add items only to the end of a list while insert() method can add itme anywhere in the list.

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

Ans- Use remove method and del statementto remove values from a list

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

Ans- List and string both have indexes, slice , both can be used in for loops , both can be concatenated or replicated and used many functions in both

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

Ans- Tuples are Immutable but can be Indexed and slicing values can not be added, removed, or changed.

Lists are Mutable,can be Indexed and slicing values can be added, removed, or changed.

tuples are represented using parentheses ()

lists use the square brackets []

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

Ans- tup\_val =(42,) comma is mandatory otherwise python interpreter will considered it as a int

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

Ans- The list() tuple() are used to convert a list to tuple and tuple to list

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

Ans- Variables that "contain" list values are references to list values

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

Ans- The copy.copy() function will do a shallow copy of a list, while the copy.deepcopy() function will do a deep copy of a list.

That is, only copy.deepcopy() will duplicate any lists inside the list.