1. **What exactly is []?**

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] = '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)]?**

spam[int(33/11)] = spam[3] = d

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

Spam[-1]= d

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

['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')?**

bacon.index('cat') =1

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

It will add 99 to the end of the list

New list = [3.14, 'cat', 11, 'cat', True, 99]

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

Removes the first occurrence of ‘cat’

New list= [3.14, 11, 'cat', True, 99]

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

Concatenation operator is +

A =[1,2]

B = [3,4]

A+B = [1,2,3,4]

List replication operator is \*

A = [5,6]

C = A\*2

C =[5,6,5,6]

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

append()- adds the newly inserted item at the end of the list

For example--append(30)—adds 30 to the end of the list

insert(index, element)- adds the item at a specific location as specified

insert(2, 30)- adds 30 at 3rd location

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

remove()- removes the first matching value from the list

pop(index)- removes the element at specified index

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

Both lists and strings are ordered collection/ sequences. We can access the characters (for strings) and elements(for lists) using indexing in similar manner.

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

Lists are mutable and tuples are immutable(cannot be changed or reassigned)

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

T = (42,)

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

Convert list into tuple using tuple() function 🡺tuple(list)

Convert tuple into list using list() function🡺list(tuple)

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

Variables contain the references to those elements of lists

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

Copy.copy()🡪shallow copy creates new object and adds reference to the objects found in original object.

Copy.deepcopy()🡪Deep copy creates new object and recursively creates copies of the objects found in original object