1. What exactly is []?

Ans. It is a square bracket notation used for list data structure and subsetting and in Python

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'

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: 8

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

Ans: ['a', 'b', 'c', 'd']

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

Ans: It will return a list containing values 2 and 4 i.e [2, 4]

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. bacon.append(99) will append 99 as last value==🡺

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

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

Ans: It removes the first occurrence of ‘cat’ ==🡺

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

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

Ans. List concatenation is (+) sign and replication operator is (\*) asteric

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

Ans: . append () add items at the end while. insert () add the elements at specified place as per intents.

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

Ans: . remove () and .pop()

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

Ans: Both list and string have length. In list length denotes number of items/elements while in string it denotes number of character.

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

Ans: Main difference is Tuples are Immutable and list is mutable

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

Ans: 42 follwed by comma(,) e.g 42, =🡺 (42,)

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

Ans: list value's in tuple form obtained by using the keyword list followed by parenthesis e.g list()

tuple value's list obtained by using the keyword tuple followed by parenthesis e.g tuple()

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

Ans: It contains references along with the values.

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

Ans: copy.copy() creats clone of list with same reference. If we change in one list then other list will also get affected.

copy.deepcopy()- It also creats clone of the object but it assign new reference values to the clone so, in this case both parent and child object apparently looks sae but any changes in one does not affect other due to obvious reason(different reference number)