1. What exactly is []?

Ans: the empty list value which contain no 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]

spam.insert(2,"hello")

spam [2, 4, 'hello', 6, 8]

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:’3’ it means string value and ‘3’\*2 means 33 then before dividing it pass to int and after final evaluation answer is 3.

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

Ans: ‘d’ It counts negative index.

Eg.spam=[1,2,3,4,5,6]

Spam[-1]

o/p:6

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

Ans:[‘a’,’b’]

it counts from 0 upto 2nd(i.e 0,1) indexes.

Eg.spam=[1,2,3,4,5,67]

Spam[:2]

o/p:[1,2]

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

bacon=[3.14, 'cat', 11, 'cat', True]

bacon.index('cat')

o/p:1

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

Ans:[ 3.14, '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:List concatenation operator is +, and List replication operator is \*.

Eg. a=[1,2,'husna']

b=[3,4,'shamlik']

c=a+b

print(c)

o/p: [1, 2, 'husna', 3, 4, 'shamlik']

d=a\*2

print(d)

o/p:[1, 2, 'husna', 1, 2, 'husna']

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

Ans:append() : it adds value only to the end .eg.a=[1,2,3,45] a.append(9) => a=[1,2,345,9]

Insert():it add them anywhere in the list.

Eg. a=[1,2,3,45] a.insert(2,’husna’) =>a=[1,2,’husna’,3,45]

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

Ans:the pop() and remove() statement are two methods for removing items from list.

Eg. a=[1,2,3,45,7,8]

1)a.remove(2) 2)a.pop(4)

o/p:a:[1,3,45,7,8] o/p:a:[1,2,3,45,8]……it pop 4th index element i.e 7 and if pop() is given then it automatically takes last element of the list.

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

Ans: Both string and list can be passed to len(),have indexes and slices, be used in for loops, be concatenated, replicated and be used with in and not in operators.

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

Ans:1)lists are mutable ,they can have values added,remove,changed at all.they are written in [] square bracket.

2)Tuples are immutable ,they are written in paranteses(), they can’t be changed at all.they don’t do remove,insert operation.it only do count and index operation.

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

Ans: (42)

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

Ans:by tuple() and list() function respectively.

Eg.1)a=[1,2,3,4]…….. list value's tuple form

A=tuple(a)

o/p: a: (1,2,3,4)

2)t=(“husna”,True,89.76)

t=list(t)

o/p:t:[‘husna’,True,89.76)

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

Ans:They contain reference to list value

17. How do you distinguish between copy.copy() and copy.deepcopy()

Ans:1)copy.copy() creates reference to original object ,if you changed the copied object you changed the original object.

2)deepcopy() :it creates new object and does real copying of original object to new one .Changing new deepcopied object doesn’t affect original object.

Eg. li1 = [1, 2, [3,5], 4]

li=copy.copy(li1)

print("the element after copy ")

for i in range(len(li1)):

print(li[i],end="")

print("\r")

li2 = copy.deepcopy(li1)

print ("The original elements before deep copying")

for i in range(0,len(li1)):

print (li1[i],end=" ")

print("\r")

li2[2][0] = 7

print ("The new list of elements after deep copying ")

for i in range(0,len( li1)):

print (li2[i],end=" ")

print("\r")

o/p: the element after copy

1

2

[3, 5]

4

The original elements before deep copying

1

2

[3, 5]

4

The new list of elements after deep copying

1

2

[7, 5]

4

1

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