1. What exactly is []?

[] is list which has no element. It 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=[2,4,6,8,10]

spam[2]=”hello”

Let's pretend the spam includes the list ['a', 'b', 'c', 'd'] for the next three queries.

spam=['a', 'b', 'c', 'd']

1. What is the value of spam[int(int('3' \* 2) / 11)]?

‘d’

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

‘d’

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

spam[:2]=[‘a’,’b’]

Let's pretend bacon has the list [3.14, 'cat,' 11, 'cat,' True] for the next three questions.

bacon=[3.14,’cat’,11,’cat’,True]

6. What is the value of bacon.index('cat')?

1

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

Value 99 will be added in the last index in the list bacon.

bacon.append(99)

bacon=[3.14,’cat’,11,’cat’,True,99]

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

It will remove the ‘cat’ element which come first in the list index.

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

‘+’ operator is used for list concatenation while ‘\*’ operator is used for list replication.

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

append() will add the new element inside the list in the last index or position. insert() helps to add and modify element in any position mention by the user which is indicated by the index number .

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

pop(),remove()

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

We can use comparison operator(== ,!=,is) for comparing the list and string values for similarity as

listOfPlaces = ["Berlin", "Paris", "Lausanne"]

currentCity = "Lausanne"

for place in listOfPlaces:

print ("comparing %s with %s: %s" % (place, currentCity, place == currentCity))

What's the difference between tuples and lists?

List=collection of various items of different datatypes enclosed in square brackets in which the elements can be changed i.e mutable. has a variable size

tuples= collection of various item of different datatypes enclosed in small brackets in which elements cannot be changed i.e immutable. It has a fixed size.

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

tuple=(42)

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

List value tuple form

list=[10,20,30]

tuple(list)

tuple value list form

tuple=(10,20,30)

list(tuple)

Tuple=(‘a’,’b’,[1,2,3],4,5)

List=[1,2,’Sandesh’,(‘a’,#,1)]

We can use zip() ,map() to map the list together to create a list of tuples.

list1 = [10,20,30]

list2 = [50,"Python","JournalDev"]

list\_tuple = list(zip(list1, list2))

print(list\_tuple)

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

string

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

copy() create reference to original object. If you change copied object - you change the original object. .deepcopy() creates new object and does real copying of original object to new one. Changing new deepcopied object doesn't affect original object.