1. What exactly is []?

ANSWER:In python anything inside a square bracket is known as list.In a list we can have different types of datatypes such as integer,string ,float etc.

2. 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.)

ANSWER: 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)]?

ANSWER: ‘d’

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

ANSWER:’d’

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

ANSWER:[‘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’)?

ANSWER:1.As it will return the index of first occurrence of cat.

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

ANSWER:99 will be appeneded at the end of the list [3.14, 'cat', 11, 'cat', True, 99]

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

ANSWER:Removes first occurrence of ‘cat’ as below

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

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

ANSWER:List concatenation is appending a list with another list and forming a new list .e,g

A=[1,2,3] B=[3,4,5] C=A+B

C=[1,2,3,3,4,5]

List replication is the way to replicate one list to another or just replicating a list into another list.It is done by extend and cloning command.

A=[1,2]

B.extend(A) or B=cloning(A)

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

ANSWER: Append always add the new element at the end of a list whereas insert command will place the new element at desired index of the list.

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

ANSWER:The 2 methods are list.remove(<values>) and list.pop(index)

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

ANSWER: A list and string stores values in a sequence.Each letter ina string can be accessed by its position and similarly in list we can access each element by it index value.

E;g

A=”python”

A[0] will give letter ‘p’

A=[‘p’,’y’,’t’,’h’,’o’,’n’]

A[0] will give ‘p’

13. What’s the difference between tuples and lists?

ANSWER:Tuples is collection of different types in a pair of round brackets and once a tuple then it decomes immutable.

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

ANSWER: thistuple = (42)

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

ANSWER:

list value’s tuple form

LT\_data = [(1,2,3),('S','P','Q')]

tuple value’s list form

tp\_date=([1,2].[3,4])

16. Variables that “contains” list values are not necessarily lists themselves. Instead, what do they

contain?

ANSWER:The Variables contains reference to the list values instead of list values of themselves.

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

ANSWER: copy.copy() usually known as a Shallow copy.This command creates a copy of the reference of the list and any changes in new copied list is replicated in original list.

Copy.deepcopy() creates a new collection object and replicates each of the value present in original list in newlist.anychanges to new list doesn’t replicate in original list.