**Assignment-2**

1. What is []?

**Answer:**

**[]- is an empty list**.

2. How would you assign the value 'hello' as the third value in a list stored in a variable named spam? (Assume spam contains [2, 4, 6, 8, 10].)

**Answer:**

**spam.insert(2,’hello’)**

**So spam will be spam=[2,4,6,8,10,’hello’]**

For the following three questions, let’s say spam contains the list ['a', 'b', 'c', 'd'].

3. What does spam[int(int('3' \* 2) // 11)] evaluate to?

**Answer:**

**‘d’**

4. What does spam[-1] evaluate to?

**Answer:**

**‘d’**

5. What does spam[:2] evaluate to?

**Answer:**

**[‘a’,’b’]**

For the following three questions, let’s say bacon contains the list [3.14, 'cat', 11, 'cat', True].

6. What does bacon.index('cat') evaluate to?

**Answer:**

**1**

7. What does bacon.append(99) make the list value in bacon look like?

**Answer:**

**bacon=[3.14, 'cat', 11, 'cat', True,’99’]**

8. What does bacon.remove('cat') make the list value in bacon look like?

**Answer:**

**Bacon=[3.14, 11, 'cat', True,’99’]**

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

**Answer:**

**List concatenation: +=**

**List replication: \*=**

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

**Answer:**

**The difference between append and list is that append adds the element at the end of the list while insert function can add the element to the desired location.**

11. What are two ways to remove values from a list?

**Answer:** **By using pop() and remove()**

12. Name a few ways that list values are similar to string values.

**Answer:**

**If the list is empty then we can say that list values and empty string values are similar**

13. What is the difference between lists and tuples?

**Answer:**

**Lists are mutable and tuples are immutable.**

**We use [] to represent elements in list while we use () for representing elements in tuple**

14. How do you type the tuple value that has just the integer value 42 in it?

**Ans:** **(42)**

15. How can you get the tuple form of a list value? How can you get the list form of a tuple value?

**Answer:** **We can get tuple form of list by using tuple(list\_name) function**

**And we can get list from tuple by using list(tuple\_name) function.**

16. Variables that “contain” list values don’t actually contain lists directly. What do they contain instead?

Answer:

**They contain references to list**

17. What is the difference between copy.copy() and copy.deepcopy() ?