**1. What exactly is []?**

**Solution:-** It is empty list value which contains no elements.

**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.)**

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

**Solution:-** By using indexing operation,

Spam[2] = ‘hello’

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

**Solution:-** After evaluating the value of above expression is spam[3] = ‘d’

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

**Solution:-** spam[-1] = ‘d’

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

**Solution:-** spam[:2] = [‘a’, ’b’]

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

**6. What is the value of bacon.index(‘cat’)?**

**Solution:-** bacon.index(‘cat’) = 1

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

**Solution:-** bacon.append(99) gives following list value:

[ 3.14 , ‘cat’, 11, ‘cat’, True, 99 ]

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

**Solution:-** bacon.remove(‘cat’) gives following list value:

[ 3.14, 11, ‘cat’, True ]

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

**Solution:-** list concatenation operator is +

and list replication operator is \*

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

**Solution:-** append() method add data at the end of the list Whereas,

With the help of insert() method we can add data at whichever index we want.

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

**Solution:-** pop() and remove()

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

**Solution:-** Both list and string perform indexing & slicing operations. Both can be concatenated or replicated , also both can be passed to len()

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

**Solution:-** Tuples & lists have two main differences :

lists are mutable whereas, tuples are immutable and

lists are written in square bracket [ ] whereas, tuples are written in parentheses ( )

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

**Solution:-** ( 45,)

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

**Solution:-** for list values using tuple( ) function and

For tuple values using list( ) function

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

**contain?**

**Solution:-** They contain references to list values

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

**Solution:-** The copy.copy() function will do shallow copy of data means if we change copied object it will end up in changing original object Whereas,

the copy.deepcopy() function will do deep copy of data here, if we change deep copied object it will not affect original object.