**ASSIGNMENT SUBMISSION BY HRITIK PAL**

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

**Ans.** [] is used to store entities of list and to call the entities as per their index number from string and list.

**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.)**

**Ans.** spam.insert(2, “hello”)

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

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

**Ans.** ‘d’

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

**Ans.** ‘d’

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

**Ans.** [‘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')?**

**Ans.**  1

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

**Ans.** This command will add the number 99 to the list and the list bacon will have 99 in the end of the list i.e, [3.14, 'cat', 11, 'cat', 'true', 99]

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

**Ans.** This command will remove the list entity at the index 1 from the list.

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

**Ans.** Operator for list concatenation is “+” and for list replication operation which is used is “\*”

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

**Ans.** append() will add the new value which has to be inserted in the list at the end of the list whereas insert() allow us to insert any value or string on our desired index and no specifically at the end of the list.

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

**Ans.** The two methods for removing items from a list is either using remove function or pop function. These are the only two methods through which we can remove items from the list.

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

**Ans.** List and string are identical as both are stored in sequence.

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

**Ans.** The main difference between tuples and lists is Tuples is immutable while on the other hand list is mutable.

We cannot give value or assign value or change the values in the tuple after declaring tuple. In simple words neither we can add the entities in tuple nor we can change the values in tuple. But in case of list, we can not only change the values in the list but we can also add and remove the items or entities from the list.

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

**Ans.** The tuple with only value 42 would look like(42,)

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

**Ans.** We can use data type conversion from list to tuple or tuple to list.

For example if we have to change data type list values in tuple form so:-

a=[1,2,3] *#here I assigned values to a variable in form of list*

tuple(a) *#getting values of list a in form of tuple*

and now getting tuple values in list form

b=(1,2,3) *#here I assigned values to a variable in form of tuple*

list(b) *#getting values of tuple in form of list*

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

**Ans.** They contain references to list values rather than list themselves.

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

**Ans.** copy() create reference to original object means changing in copied object , then there will be change automatically in original object. Whereas, deepcopy() will make a copy without reference to original copy means any change in the copy won’t change original copy.