1.Differentiate between list,tuple and Dictionary.

List and tuple is an ordered collection of items.Dictionary is unordered collection.

List and Tuple objects are sequences. A dictionary is a hash table of key-value pairs.

List and dictionary objects are mutable i.e. it is possible to add new item or delete and item from it. Tuple is an immutable object. Addition or deletion operations are not possible on tuple object.

Each of them is a collection of comma-separated items. List items are enclosed in square brackets [], tuple items in round brackets or parentheses (), and dictionary items in curly brackets {}.

L=[‘A':20 ,’B':80 ,’C':60]

T=(1:’Apple' ,2:’Orange' , 3:’Grapes')

D={‘Rollno’:24 , ’Branch':’CSE’}

List and tuple items are indexed. Slice operator allows item of certain index to be accessed.

Items in dictionary are not indexed. Value associated with a certain key is obtained by putting in square bracket. The get() method of dictionary also returns associated value.

dict_forLoop.py

```
1 d = {'Chemistry': 1, 'Social': 2,
  'English': 3,'Maths': 4}
2 for dict_key, value in d.items():
3       print(dict_key, 'is',
  d[dict_key])
```

Sum_dict.py

```
dict= {'data1': 400,'data2':
80,'data3': 20,'data4': 90}
print("Total sum of values in the
dictionary:")
print(sum(dict.values()))
```

Concatenate.py

```
1 dic1={1:10,2:20}
2 dic2={3:30,4:40}
3 dic3={5:50,6:60}
4 dic4={}
5 for d in (dic1, dic2, dic3):
  dic4.update(d)
6 print("dic4 = ",dic4)
```

key_dict.py

```
d = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
def is_key_present(x):
  if x in d:
        print('Key is present in the dictionary')
  else:
        print('Key is not present in the dictionary')
is_key_present(5)
is_key_present(10)
```