**PYTHON ASSIGNMENT**

**MODULE-5**

**1. What is dictionary in Python? Explain with an example**

Dictionary is collection of key and value pairs. These key value pairs need not be in any specific order. But dictionaries mutable and indexed.

Eg:

tel\_dir = {'Mike': 123445689,'Haynes': 45678910, 'Mina':635363636}

print (tel\_dir)

**3) Write a Python program to sum all the items in a list.**

def sum\_list(items):

sum\_numbers = 0

for x in items:

sum\_numbers += x

return sum\_numbers

print(sum\_list([1,2,-8]))

**4. Write a Python program to create a list of empty dictionaries**

n = 5

l = [{} for \_ in range(n)]

print(l)

**5. Write a Python program to access dictionary keys element by index.**

num = {'physics': 80, 'math': 90, 'chemistry': 86}

print(list(num)[0])

**6. Write a Python program to iterate over dictionaries using for loops**

d = {'Red': 1, 'Green': 2, 'Blue': 3}

for color\_key, value in d.items():

print(color\_key, 'corresponds to ', d[color\_key])

**7. Write a Python program to sum all the items in a dictionary.**

def returnSum(myDict):

sum = 0

for i in myDict:

sum = sum + myDict[i]

return sum

dict = {'a': 100, 'b':200, 'c':300}

print("Sum :", returnSum(dict))

**8. Write a Python script to concatenate following dictionaries to create a new one. Sample Dictionary :**

**a. dic1={1:10, 2:20}**

**b. dic2={3:30, 4:40}**

**c. dic3={5:50,6:60}**

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

dic4 = {}

for d in (dic1, dic2, dic3): dic4.update(d)

print(dic4)

**9. Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}**

dic1={1:10, 2:20}

dic2={3:30, 4:40}

dic3={5:50,6:60}

dic4 = {}

for d in (dic1, dic2, dic3): dic4.update(d)

print(dic4)

**10.Write a Python program to create a tuple**

t = ()

print (t)

tup = 'python', 'tuple'

print(tup)

**11.Write a Python program to create a tuple with different data types**

tuplex = ("tuple", False, 3.2, 1)

print(tuplex)

**12.Write a Python program to convert a tuple to a string**

def convertTuple(tup):

str = ''.join(tup)

return str

tuple = ('p','y','t','h','o','n')

str = convertTuple(tuple)

print(str)

**13.Write a Python program to slice a tuple**

test\_str = "1, -5, 4, 6, 7"

print("The original string : " + str(test\_str))

res = tuple(map(int, test\_str.split(', ')))

print("Tuple after getting conversion from String : " + str(res))

**14.Write a Python program to find the length of a tuple.**

tuplex = tuple("python")

print(tuplex)

print(len(tuplex))

**15.Write a Python program to convert a tuple to a dictionary.**

tuplex = ((2, "w"),(3, "r"))

print(dict((y, x) for x, y in tuplex))

**16.Write a Python program to reverse a tuple**

def Reverse(tuples):

new\_tup = tuples[::-1]

return new\_tup

tuples = ('z','a','d','f','g','e','e','k')

print(Reverse(tuples))

**17.Write a Python program to convert a list of tuples into a dictionary**

def Convert(tup, di):

for a, b in tup:

di.setdefault(a, []).append(b)

return di

tups = [("akash", 10), ("gaurav", 12), ("anand", 14),

("suraj", 20), ("akhil", 25), ("ashish", 30)]

dictionary = {}

print (Convert(tups, dictionary))

**18.Write a Python program to convert a list to a tuple.**

listx = [5, 10, 7, 4, 15, 3]

print(listx)

tuplex = tuple(listx)

print(tuplex)