**Lab: Dictionaries**

**1.** Write a Python script to sort (ascending and descending) a dictionary by value.

**2.**Write a Python script to add a key to a dictionary.

Sample Dictionary : {0: 10, 1: 20}  
Expected Result : {0: 10, 1: 20, 2: 30}

**3.** Write a Python script to concatenate following dictionaries to create a new one.

**Sample Dictionary :**dic1={1:10, 2:20}  
dic2={3:30, 4:40}  
dic3={5:50,6:60}  
Expected Result : {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}

**4.** Write a Python script to check whether a given key already exists in a dictionary

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

**6.** Write a Python script to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x).  
Sample Dictionary ( n = 5) :  
Expected Output : {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}

**Tuples**

1. Write a Python program to create a tuple.
2. Write a Python program to create a tuple with different data types.
3. Write a Python program to unpack a tuple in several variables.
4. Write a Python program to add an item in a tuple.
5. Write a Python program to convert a tuple to a string.
6. Write a Python program to get the 4th element and 4th element from last of a tuple.