Python Programming Laboratory (CSL48)

USN:	**Week #: 03**
Semester: **Section:**	**Date:**

Instructions:

- **Implement the following programs using python language.**

Programs:

1. Write a python program to create a tuple with random number find the Maximum and Minimum K elements in Tuple.
   Input : test_t = (3, 7, 1, 18, 9), k = 2
   Output : (3, 1, 9, 18)
   Input : test_t = (3, 7, 1), k=1
   Output : (1, 3)

2. Given a list of strings, write a Python program to create a list of tuples having first element as the string and second element as the length of the string. Output the list of tuples sorted based on the length of the string.

3. Initialize a dictionary of capitals in the form
   capitals={'Karnataka':'Bangalore','Maharashtra':'Mumbai','Tamilnadu':'Chennai'}
   Execute the following and observe the output:
   a) capitals.keys()
   b) capitals.values()
   c) capitals.items()
   d) capitals.get('Karnataka')
   e) print(capitals)
   f) other_capitals={'Gujarat':'Ahmedabad',}
   g) capitals.update(other_capitals)
   h) print(capitals)
   i) print(other_capitals)

4. Write a python program to initialize a dictionary of usernames and passwords associated with it.
   passwd={'rahul': 'genius', 'kumar': 'smart', 'ankita': 'intelligent'}
   Define the following functions:
   a) To print all the items in the dictionary.
   b) To print all the keys in the dictionary.
   c) To print all the values in the dictionary.
   d) To get the passwords of users. For example, passwd['rahul']= genius
   e) Change the password of a particular user. For example, passwd['ankita']='brilliant'

5. Create a dictionary for words and their meanings. Write functions to add a new entry (word:meaning), search for a particular word and retrieve meaning, given meaning

find words with same meaning, remove an entry, display all words sorted alphabetically. [Program must be menu driven].

6. Write a function char_freq() that takes a string and builds a frequency listing of the characters contained in it. Represent the frequency listing as a python dictionary.

7. a) Write a Python program to generate random even integers in a specific numerical range using the random module
b) Write a Python program to get a single random element from a specified string using the random module.
c) Write a Python program to generate a series of unique random numbers without any duplicates using the random module.
d) Write a Python program to generate random even integers in a specific numerical range using the random module.

	EVALUATION		
Program	**Remarks**	**Marks**	**Faculty Signature**
Program - 1			
Program – 2			
Program – 3			
Program – 4			
Program – 5			
Program – 6			
Program – 7			