RAMAIAH
Institute of Technology

Ramaiah Institute of Technology
(Autonomous Institute, Affiliated to VTU)
Department of Computer Science & Engineering

Python Programming Laboratory (CSL48)

USN: **Week #: 02**

Semester: **Section:** **Date:**

Instructions:

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

Programs:

1. Create a function sum() and a function multiply() that takes a list of numbers and displays the sum of all the numbers if sum() is called and displays multiplication of all the numbers if the multiply() is called. For example, sum([1, 2, 3, 4]) should return 10, and multiply([1, 2, 3, 4]) should return 24.

2. Create a displayMinMax() function that takes an Array and displays the maximum and minimum number from the array. Create a displaySecondMax() to display the second largest number from the array without sorting.

3. Write a python function linearSearch() to read an array and search for the key element. Display the appropriate messages. Use the recursive function.

4. Write a python function binarySearch() to read a sorted array and search for the key element. Display the appropriate messages.

5. Create a displayFibonacci() function that displays the Fibonacci series between 0 to 100.

6. Create a findQuadraticRoots() function that finds the roots of a quadratic equation. Display appropriate messages.

7. Write a python program to create a list with all the subject names of the 4th semester and perform the following operations.
   - Display the list using for loop.
   - Display 2nd and 5th element of the list.
   - Display first 4 elements of the list using the range of indexes.
   - Display last 4 elements of the list using the range of negative indexes.
   - Display if "Python Programming Lab" is available in the List or not.
   - Demonstrate the working of append() and insert() function.
   - Demonstrate the working of remove() and pop() function.

- Demonstrate the working of extend() function by adding subject codes.
- Display the list in ascending and descending order.

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