

## **Name of The Laboratory: Python Programming**

### **Course Objectives:**

To be able to introduce core programming basics and program design with functions using Python programming language.

To understand a range of Object-Oriented Programming, as well as in-depth data and information processing techniques.

To understand the high-performance programs designed to strengthen the practical expertise.

### **List of Programs:**

1. Write a program to demonstrate different number data types in Python.
2. Write a program to perform different Arithmetic Operations on numbers in Python.
3. Write a program to create, concatenate and print a string and accessing sub-string from a given string.
4. Write a python script to print the current date in the following format “Sun May 29 02:26:23 IST 2017”
5. Write a program to create, append, and remove lists in python.
6. Write a program to demonstrate working with tuples in python.
7. Write a program to demonstrate working with dictionaries in python.
8. Write a python program to find largest of three numbers.
9. Write a Python program to convert temperatures to and from Celsius, Fahrenheit. [ Formula:  $c/5 = f-32/9$ ]
10. Write a Python program to construct the following pattern, using a nested for loop

```
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* * * *  
  
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* *  
  
*
```

11) Write a Python script that prints prime numbers less than 20. widget with uname passwd submit reset

12) Write a python program to find factorial of a number using Recursion

13) Write a program that accepts the lengths of three sides of a triangle as inputs. The program output should indicate whether or not the triangle is a right triangle (Recall from the Pythagorean Theorem that in a right triangle, the square of one side equals the sum of the squares of the other two sides).

14) Write a python program to define a module to find Fibonacci Numbers and import the module to another program. name gender phone number checkd

1. ~~Write a python program~~ to define a module to find Fibonacci Numbers and import the module to another program.  
15) Write a python program to define a module and import a specific function in that module to another program.

16) Write a script named **copyfile.py**. This script should prompt the user for the names of two text files. The contents of the first file should be input and written to the second file.

17) Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order.

18) Write a Python class to convert an integer to a roman numeral.

- 19) Write a Python class to implement  $\text{pow}(x, n)$
- 20) Write a Python class to reverse a string word by word.

