BCA – IV SEMESTER

ADVANCED PYTHON PROGRAMMING LAB

Hours per week: 2 Credits: 2

1. Write a program **add.py** that takes 2 numbers as command line arguments and prints its sum.
2. Write function to compute **gcd, lcm** of two numbers.
3. To write a python program Binary Search.
4. Write a program to implement Selection Sort.
5. Write a program to implement Insertion Sort.
6. Write a function cumulative sum to compute cumulative sum of a list of numbers.
7. Write a program to perform addition of two square matrices.
8. Write a program to double a given number and add two numbers using lambda() function.
9. Write a python program which accepts the radius of a circle from user and computes the area(use math module).
10. Write a program to find sum of two numbers using class and methods.
11. Using a **numpy** module create an array and check the following:
    a)Type of array b)Dimensions of array 3c)Shape of array d)Type of elements in array
12. Write a python program to concatenate the **dataframes** with two different objects.
13. Write a python program to define a module and import a specific function in that module to another program.
14. Write a python program to illustrate the concept of polymorphism in python.
15. Write a python code to set background color and pic and draw a square and fill the color using **turtle** module.

Course Outcome

- ✓ To build the basic concepts of python programming like functions, modules(L3)
- ✓ To build searching, sorting, and merging algorithms(L3)
- ✓ To build the concepts data frames(L3)
- ✓ To build concepts of packages(L3)
- ✓ To build concepts of OOPS(L3)