

# KARPAGAM COLLEGE OF ENGINEERING

## ADVANCED PYTHON PROGRAMMING

### LAB EXERCISE ON DECORATORS

- 1). Write a python program and create function calcPrime() to print prime numbers between 100 to 1000 and those numbers shouldn't have remainder 3 when divided by 5. Use decorator function to initialize string "printing prime numbers between 100 to 1000..." upon calcPrime function call is made.
- 2). Write a python program to calculate factorial, fibonacci of a number. define fact(x), fibo(y) functions to calculate factorial and fibonacci. Use decorator function to check x,y are positive numbers, if it is negative raise exception.
- 3). Solve Ex.2 using class decorators.
- 4). Develop a bank application for "State Bank of India" with deposit(damount), withdrawal(wamount), display functions. create global variable balance. Deposit function will add damount to balance. withdraw function will subtract wamount from balance. display function will display final balance. Function call of above mentioned functions should display below extra statements.

**STATE BANK OF INDIA**  
**Governed by Govt. of India.**  
**Affiliated to Reserve Bank of India**

Create function decorator with arguments to solve this problem.

- 5). Solve Ex.4 using class decorators.
- 6). Write a Python program to make a chain of function decorators (bold, italic, underline etc.).

Example:

```
def make_bold(fn):  
    def wrapped():  
        return "<b>" + fn() + "</b>"  
    return wrapped  
def make_italic ...  
def make_underline ...
```

Define a function displaytext() to print text in a <b><i><u>TEXT</u></i></b> format using chained decorator functions.