

DEPARTMENT OF COMPUTER APPLICATIONS
20MCA131 PROGRAMMING LAB
LAB CYCLE 4

[Using Python Functions]

1. Write a program using functions to calculate the simple interest. Suppose the customer is a senior citizen. He is being offered a 12 percent rate of interest, for all other customers, the rate of interest is 10 percent.
2. Write a program using functions and return statements to check whether a number is even or odd.
3. Write a function called compare which takes two strings S1 and S2 and an integer n as arguments. The function should return True if the first n characters of both the strings are the same else the function should return False.
4. Write a program to print the Fibonacci series using recursion.
5. Write a program to add variable length integer arguments passed to the function. [Also demo the use of docstrings]
6. Write lambda functions to find the area of square, rectangle and triangle.
7. Write a program to display powers of 2 using anonymous function.[Hint use map and lambda function)
8. Write a program to sum the series $1/1! + 4/2! + 27/3! + \dots + \text{nth term}$. [Hint Use a function to find the factorial of a number].