**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

**SEMESTER-ODD**

**UNIT: 3 ASSIGNMENT 3.1**

**Subject Name:** Problem Solving Using Python

**Topic:** Function and Modules

**Name of Faculty:……………………………… Submission Date:…………..**

1. Explain various types of arguments passed in a function.
2. Explain scope rules of local, global and non-local variables.
3. Write a Python function to find the greatest of three numbers.
4. Write a Python function to reverse a string.
5. Write a Python function to check whether a number is in a given range.
6. Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.
7. Write a Python program to solve the Fibonacci sequence using recursion.
8. Write a Python program to find  the greatest common divisor (gcd) of two integers.
9. What is lambda function? Write a lambda function to compute area of a triangle.
10. Write any five built-in modules and mention two functions from each of these modules.
11. Illustrate the use of *dir()* function with the help of suitable code.