	Pimpri Chinchwad Education Trust's Pimpri Chinchwad College of Engineering	
Assignment No 06		

Title: Recursive Functions

Problem Statement: Write a Python program to find the gcd of given two numbers using recursive functions.

Objective: To make students familiar with the use of recursive functions in Python.

Outcome: Use of recursive functions to implement logic in programs.

Software Requirements: Windows/Linux (Ubuntu/Fedora) Operating System, Python Tool, Python IDE Anaconda/ Jupyter notebook/ Google Colab/ any similar

Theory:

Explain below points considering the description, syntax, sample code/ example etc.

- Recursive function definition
- Advantages of Recursive function
- DisAdvantages of Recursive function
- Example of Recursive function
- How to calculate GCD. Example.

Algorithm:

Step 1. Start

Step 2. Define a recursive function `gcd(a, b)`.

- If `b == 0`, return `a` (Base Case).
- Otherwise, return `gcd(b, a % b)`.

Step 3. Accept two numbers **a** and **b** from the user.

Step 4. Call the `gcd(a, b)` function and store the result.

Step 5. Display the GCD.

Step 6. End

Input & Output: Students will attach code and output print

Conclusion: Students will write interpretation of the understanding related to the implemented assignmen