Branch/Semester	B.Tech CSE (AI & ML) / Semester I
Subject Name:	Computer Programming
Subject Code:	01CE2101
Assignment:	Practice Questions (Function & Recursion)
Date:	27th September 2025
Faculty Name:	Prof. Abhishek Chauhan

Sr.	Question	CO	BL
1	Write a program to define and declare a simple function greet() that prints "Hello, World!".	CO3	BL1
2	Explain with a program how a function is declared and defined in C. Print the sum of two integers.	CO3	BL2
3	Write a program using a function to calculate the square of a number (call by value).	CO3	BL3
4	Demonstrate call by reference with a program that swaps two numbers using pointers.	CO3	BL3
5	Write a program that demonstrates the difference between call by value and call by reference for swapping numbers.	CO3	BL4
6	Implement a recursive function to calculate factorial of a number.	CO3	BL3
7	Write a recursive function to compute the nth Fibonacci number.	CO3	BL3
8	Analyze the performance of factorial calculation using recursion vs iteration.	CO3	BL4
9	Write a program with a recursive function to reverse a given string.	CO3	BL3
10	Write a function that accepts an array of integers and returns the maximum element.	CO3	BL3
11	Compare the advantages of using recursion over iteration with examples.	CO3	BL5
12	Write a recursive function to compute GCD (Greatest Common Divisor) of two numbers.	CO3	BL2
13	Create a program that demonstrates nested function calls (a function calling another function).	CO3	BL6
14	Design a recursive function to solve the Tower of Hanoi problem.	CO3	BL6

15	Develop a menu-driven program that allows the user to choose between iterative and recursive approaches for a problem (like factorial or Fibonacci).	CO3	BL6