**Lab 02: Recursion**

1. Write a recursive function to calculate the factorial of a given number.
2. Write a recursive function to print the first N natural numbers.
3. Write a recursive function to compute the sum of digits of a number.
4. Write a recursive function to find the greatest common divisor (GCD) of two numbers.
5. Write a recursive function to reverse a string.
6. Write a recursive function to check whether a number is palindrome.
7. Write a recursive function to compute the nth Fibonacci number.
8. Write a recursive function to find the power of a number ( ).
9. Write a recursive function to print the sum of the first N even numbers.
10. Write a recursive function to count the number of digits in a given integer.
11. Write a recursive function to solve the Tower of Hanoi problem with N disks.
12. Write a recursive function to check if an array is sorted in ascending order.
13. Write a recursive function to find the maximum element in an array.
14. Write a recursive function to print all permutations of a string.
15. Write a recursive function to compute the binomial coefficient (nCr).
16. Write a recursive function to solve the subset sum problem.
17. Write a recursive function to generate all subsets of a given set (Power Set).
18. Write a recursive function to implement merge sort.