

## **11. Recursive Functions**

*CO3: Implement modular applications using Functions and pointers.*

1. Write a program which inputs n and r and computes  $nC_r$  by calling the function which returns the factorial of its argument. The function computes the factorial by using recursive method.

$$nC_r = n! / (r! (n-r)!)$$

2. Write a recursive function to find the  $n^{\text{th}}$  Fibonacci number and using that function display the first n terms of the Fibonacci series.

0 1 1 2 3 5 8 13...

3. Write a C Program to find the sum of first 'n' natural numbers using Recursion.
4. Write a C program to reverse an integer using recursion.
5. Write a C program to find HCF of a given numbers using recursion.
6. Write a C program to depict Towers of Hanoi problem.