## **Assignment 4**

- **Ques 1:** Calculate the n<sup>th</sup> element of a Fibonacci sequence using:
  - a. Iteration.
  - b. Recursion.
- **Ques 2:** Calculate the factorial of a number using:
  - a. Iteration.
  - b. Recursion.
- Ques 3: Implement Tower of Hanoi using Recursion.
- Ques 4: Write a program for calculating the length of a string using Recursion.

Hint: https://www.geeksforgeeks.org/program-for-length-of-a-string-using-recursion/

**Ques 5:** Write a program to print all possible strings of length k that can be formed from a set of n characters.

Hint: https://www.geeksforgeeks.org/print-all-combinations-of-given-length/

Ques 6: Write a program to check if a number is Palindrome or not, using Recursion.

Hint: https://www.geeksforgeeks.org/check-if-a-number-is-palindrome/