Assignment - 6

1. Write a C program to check whether a number is prime, Armstrong or perfect number using recursive functions.
2. Write a C program to find all prime numbers between the given interval using recursive functions.
3. Write a C program to print all strong numbers between the given interval using recursive functions.
4. Write a C program to print all Armstrong numbers between given interval using recursive functions.
5. Write a C program to print all perfect numbers between the given interval using recursive functions.
6. Write a C program to find the power of any number using recursive functions.
7. Write a C program to find the reverse of any number using recursive functions.
8. Write a C program to find the factorial of any number using recursion.
9. Write a C program to generate nth Fibonacci term using recursion.
10. Write a C program to find values of trigonometric functions (sine, cosine, tangent, cotangent, secant, and cosecant) using user-defined library functions (Create header file, the definition file, and object file then call the function in some program file). Extension of the header file is filename.h, definition file is filename.c and object file is filename.o. The command for creating object file is "gcc -Wall -c filename.c". Make sure you must include the header file of the user-defined library function through the proper path. To compile program file in which user-defined library function is used, the command is "cc Program_fileName.c filename. o".
11. Write a C program to Implement the Tower of Hanoi problem.