C – Programming

LAB 2

1- Write a function to divide two number

2- Write a C function that take an int number and return the number of bits of this number

Example:

Input→ 8

Output→ 4

Input→ 3

Output→ 2

3- Find the maximum 0's between two immediate 1's in binary representations of given n. Return -1 if binary representation contains less than two 1's.

Example:

Input→ 47 // binary of n = 47 is 101111

Output→ 1

Input→ 8 // binary of n = 8 is 100

Output→ -1

4- Write a C function that take two numbers and multiply them without using * operation.

5- Write a C function to take 2 numbers from user and calculate sum of all numbers between them.

Input→ 2, 5

Output→/* 3+4 =*/ 7

Input→ 6, 10

Output→/* 7+8+9 =*/ 26

6- Write a C function to calculate the power of a number. The number and its power are input from user.

7- Write a C Function that swaps two values.

8- Write a C function to get Fibonacci series till the n^{th} element.

9- Write a C function print the binary representation of a binary number using recursion.
Example:
Input→ 7
Output→ 111

10- Write 4 macros as a functions to do the following tasks:

- Clear Bit
- Set Bit
- Read Bit
- Toggle Bit

Bonus:

- Rotate Right
- Rotate Left

11- Write a program using asterisk (*) to draw square, right angle triangle.