International Islamic University Chittagong

Department of Computer Science & Engineering

CSE **1122** Computer Programming I Sessional

Lab Assignment – III

1. Write a program to display **m** to **n** using loop.
2. Write a program to find the sum and average of **n** numbers.
3. Write a program to calculate the sum of the digits of a given positive integer.
4. Write a program to find the sum and average of the following series:

   1 + 4 + 7 + - - - - - + n
5. Write a program to display the multiplication table as in the following example:

   X * 1 = Y

   ….

   X * 10 = Y

   The value of X is received from the keyboard and the value of Y is the multiplication result.
6. Write a program to display

   1

   22

   333

   ….
7. Write a program to draw the following figure:

   * * * * * - - - - -

   * * * * * - - - - -

   * * * * * - - - - -

   - - -- - - - - - -

   - -- - - - - - - -

   - -- - - - - - - -
8. Write a program that read a string from the keyboard and convert all the characters in it into opposite case.
9. Write a program that will read in a sequence of characters and write out a sequence of encoded characters in its place.

   [Hint: If a character is a letter or digit, you have to replace it with the next character in the characters set except that Z will be replaced by A, z by a and 9 by 0. Any character other than a letter or digit will be re placed by a *.]
10. Write a program to determine whether the given string is a palindrome or not.
11. Write a program to calculate the factorial of a positive integer quantity (without recursion).
12. Write a program to calculate the factorial of a positive integer quantity (using recursion).
13. Write a program to determine the value of the ***n***th Fibonacci number F_n Where $Fn = F_{n-1} + F_{n-2}$ and $F_1 = F_2 = 1$ (without recursion).
14. Write a program to determine the value of the ***n***th Fibonacci number F_n Where $Fn = F_{n-1} + F_{n-2}$ and $F_1 = F_2 = 1$ (using recursion).
15. Write a program to reverse a string using recursion.
16. Write a program to determine whether the given positive integer **N** is a prime number or not.
17. Write a program to determine the Greatest Common Divisor (GCD) of two given positive integers.
18. Write a program to determine the Least Common Multiple (LCM) of two given positive integers

Last date of submission:

Saifur Rahaman
Assistant Professor
Dept. of CSE, IIUC