

## MIPS Programming Lab Assignment 1

### **Attempt all questions :**

Q1. Write a program in MIPS assembly language program to convert all occurrence of lowercase letters in a user given string to upper case letters. The string may contain any ASCII character.

Q2. Write a MIPS program to convert a user given integer to a binary number. Consider both the positive and negative integers. In case of a negative integer, the output has to be in 2's complement form. Print the binary number as a string.

Q3. Write a program in MIPS to count the number of 1's in the number provided as input for Q2.

Q4. The Fibonacci Sequence is the series of numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, . . . . Any number in the series is found by adding up the two numbers before it. Write a MIPS program to perform the following: Given a positive integer  $0 \leq n \leq 20$ , store the first n numbers of the Fibonacci series in memory and print them.

Q5. Write a MIPS program to compute the factorial of a positive number ( $>1$ ). Use a subroutine call from main to compute the factorial. Use iterative method of factorial computation.