Due Date: 16-09-2024 (11:59 pm)   100 points

1. Write a program in assembly language to subtract two 16 bit numbers without using the subtraction instruction. Note: the numbers have to be fetched from the memory.

    (**10 points**).

2. Write an assembly language program to find an average of 15 numbers stored at consecutive locations in memory.(**15 points**)

3. Write an assembly language program to find an LCM of two numbers stored at consecutive locations in memory.(**15 points**)

4. Write an assembly language program to calculate multiplication of two numbers without using MUL commands. (**20 points**).

5. Write an assembly language program to find a given number in the list of 10 numbers (assuming the numbers are sorted). If found store 1 in output, else store 2 in output.The given number has been loaded from X location in memory, the output has to be stored at the next location and if found store the number of iterations and the index of the element at the next at the next consecutive locations, if found. (**20 points**).

6. Write an assembly language program to find a character in a string.(**20 points**)

    For further practice

- Write an assembly language program for calculating the factorial of a number.

- Write an assembly language program to find an GCD of two numbers stored at consecutive locations in memory.

- Write an assembly language program to calculate division of two numbers without using DIV commands.

- Write an assembly language program to sort a given list of n numbers using Bubble Sort.

- Write an assembly language program to find a substring in a string.