**Digital Electronics Laboratory**

**Assignment Number: 08**

**PROBLEM STATEMENT:**

Write an assembly language program (ALP) to implement addition and subtraction of 8-bit numbers (Using user input, macro and procedure)

**OBJECTIVES:**

1.To understand assembly language programming.

2. To study instruction set of 8086.

**PLATFORM USED:** [64-bit Open source Linux or its derivatives.

Editor – gedit, a GNU editor

Assembler – NASM (Netwide Assembler)

LINKER – LD, a GNU linker]

<https://www.mycompiler.io/new/asm-x86_64>

**THEORY:**

Assembly Language Program Basic Structure

System Calls to read, write and Exit

Describe the instructions used (e.g. MOV, ADD, SUB…)

Write an example of addition and subtraction of 2 numbers.

**CONCLUSION:**

**FAQ:**

1. Explain assembler directives. List the assembler directives in your program.
2. Explain why 30H/37H is added to convert the digit to ASCII?
3. Define Macro and Procedure.

**Attach Code and Output**