Hashemite University
Faculty of Engineering and Technology
Computer Engineering Department

Microprocessor lab Assignment 2
Experiment 2

Q1. Suppose we want to implement the function ***Result = (Z or Y xor (X&Z)).*** Suppose that X, Y&Z at locations 700:50, 51, 52 respectively and Result at location 700:70.

Write assembly code to load the three variables with ***appropriate values as a truth table*** then complete to find the result of the equation. Use emu8086 to assemble the instructions and view the output of the memory as appear in emu8086. (Print the Screens)

Q2. Assemble the following program by writing it in .asm file and then assemble and link it, then load it into the debug and run it:

```
TITLE "MY PROGRAM"
.MODEL SMALL
.STACK 32
 .DATA
        MULT1 EQU 20H
        MULT2 DW 6
.CODE
        MOV AX,@DATA
        MOV DS, AX
        MOV AX, 00
        MOV BX, MULT1
        MOV CX, MULTT2
MULT: ADD AX, BX
        DEC CX, 1
        JNZ MULTX
        MOV DX, AX
        MOV CL, 4C00H
        INT 21H
END
```

- How many errors are reported by assembly process?
- View the source listing file. Find the errors in the source listing. List the cause and correction for each error.
- After correct the error.
    - Assemble, link and run the program.
    - Use the debugger to run your program.
    - What are the values of the AX, BX, CX&DX registers?
    - Change the line

      MULT1 EQU 20H

      BY***: MULT1 EQU 20***

      And run the program again. What are you notice?
    - Can you explain what the program does?

You have to submit a hard copy from the report and send the .asm files for the two questions to the e-mail: Eng.Ezya@gmail.com