2006-2 CENG 336
Homework 1 Question-2

Assigned: 12/03/2007 – Due: 18/03/2007 23:55

Q2- Suppose that there is a number (say M) at 1BCh and there are 21 numbers in B0h ~ C4h memory interval. Write a program which has the following features:

- The program adds the numbers in the given interval which are greater than M and stores the result to 44h (MSB) and 45h (LSB) (Note that the result is a 16-bit number).
- The program adds the numbers in the given interval which are less than M and stores the result to 144h (MSB) and 145h (LSB) (Note that the result is a 16-bit number).

You may assume that the results do not exceed 16 bits.

Sample run:

Before	After
1BCh : 22h	1BCh : 22h
0B0h : 16h	0B0h : 16h
0B1h : 44h	0B1h : 44h
0B2h : 7h	0B2h : 7h
0B3h : 1Ch	0B3h : 1Ch
0B4h : 25h	0B4h : 25h
0B5h : 22h	0B5h : 22h
0B6h : 30h	0B6h : 30h
0B7h : 14h	0B7h : 14h
0B8h : 16h	0B8h : 16h
0B9h : 3Bh	0B9h : 3Bh
0BAh : 1Ah	0BAh : 1Ah
0BBh : 73h	0BBh : 73h
0BCh : 11h	0BCh : 11h
0BDh : Bh	0BDh : Bh
0BEh : 51h	0BEh : 51h
0BFh : 14h	0BFh : 14h
0C0h : 6h	0C0h : 6h
0C1h : 1Fh	0C1h : 1Fh
0C2h : Fh	0C2h : Fh
0C3h : 34h	0C3h : 34h
0C4h : 22h	0C4h : 22h
044h : xx	044h : 1h
045h : xx	045h : CCh
144h : xx	144h : 0h
145H : xx	145H : E1h

Coding Rules:

- You will **certainly** use PIC assembler language. Any other languages will NOT be accepted.
- You will write your program for PIC16F877. Therefore you have to include its .inc file.

Hand In Instructions:

- You will submit a single file, "lab1.asm".

- DO NOT tar or zip the file!
- Make sure you have included your name and ID in a comment at the top of your handin file.
- You will submit your "lab1.asm" file using "http://cow.ceng.metu.edu.tr".
- No late submission is allowed.
- For any clarification please follow the newsgroup.

Evaluation:
- Your programs will be compiled and simulated using MPLAB.
- If we get any compilation error, you will **not** be able to object your score.

Good luck!