

2006-2 CENG 336

Homework 1 Question-1

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

Q1- Suppose that there is a number (say N) at A1h whose value is between 01h and 40h ($0 < \text{Mem}[A1H] = N < 41h$). You will add N numbers starting from memory address 120h, and store the result into memory address 1B0h (MSB) and 1B1h (LSB) (Note that the result is a 16-bit number).

$$\text{Mem}[1B0h : 1B1h] = \sum_{i=0}^{N-1} \text{Mem}[120h + i]$$

Sample runs:

Before		After	
0A1h :	3h	0A1h :	xx
120h :	16h	120h :	16h
121h :	4h	121h :	4h
122h :	50h	122h :	50h
1B0h :	xx	1B0h :	00h
1B1H :	xx	1B1H :	6Ah

Before		After	
0A1h :	5h	0A1h :	5h
120h :	16h	120h :	16h
121h :	E2h	121h :	E2h
122h :	45h	122h :	45h
123h :	82h	123h :	82h
124h :	A0h	124h :	A0h
1B0h :	xx	1B0h :	02h
1B1H :	xx	1B1H :	5Fh

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!