

## ECE 425 Introductions to Microprocessors Laboratory Work 1

### Objective:

- 1) Writing and compiling a PIC16F84 assembly code to get machine code.
- 2) Program your PIC16F84 chip using a PIC programmer device.

### Preparation:

### Laboratory Work:

- 1) Obtain the machine code for the following assembly code.

```
list p=16f84A
include "p16f84A.INC"

clrf PORTB;
bsf     STATUS, RP0;
clrf   TRISB;
bcf     STATUS, RP0;
bsf     PORTB, 0;

end
```

- 2) Trace your program using F7 button. Inspect the program memory map in MPLAB studio.
- 3) Edit the above code using MPLAB studio, compile it and obtain the HEX file. Open the HEX file using NOTEPAD and compare the machine code with the one you computed in part 1.
- 4) Load the machine code in part 2 into your PIC16F84A microcontroller and comment on the result.