

ECE 336 MICROPROCESSORS + LAB PRACTICAL QUESTIONS

(Week 7)

In this laboratory class, you will use pic programmer and test cards. First, try to write the programs that are explained below, and test your programs by using test cards.

1) Write a program to transfer value 55H serially (one bit at a time) via pin RB1 (bit_1 of PORTB). Put one high at the start and put one low end of the data via pin RB2 . Send the LSB first. Put 1 second delay between each issue. After writing the program, upload the program to PIC16F84A and test your program on the test card.

2) First, set PORTA as input and PORTB is output. Write a program that controls RA2 button, counts the number of pressing this button and shows that number on LEDs. For instance, when we press the button five times, this number will be shown on LEDs in binary format. Upload your program to the microchip and test it on test card.

3) First, set PORTA as input and PORTB is output. Write a program that controls RA2 button. When RA2 button is pressed 3 times, all LEDs of PORTB will flash 5 times and then will wait for another signal from RA2. Use 1 second delay between each flash of LEDs, i.e all LEDs will be turned on for 1 second and turned off for 1 second. It will do this period of issues five times. Upload your program to the microchip and test it on test card.

**** During your LAB work show every step that you complete to the LAB assistant. Get a copy of assembly files you write during the LAB hour via a flash disk for future reference.**