

## ***Assignment 2***

**1-Write Embedded C code to control a led using a push button. ( 6 points)**

***Requirements:***

- The Led 1 & 2 is connected to pin 0 & 1 in PORTA.
- The switch 1 , 2 , 3 is connected to pin 0 & 1 & 2 in PORTB.
- If switch 1 is pressed just turn on the first led1 only , if switch 2 is pressed just turn on led2 only , if switch 3 is pressed turn on the 2 leds .
- In case no switches are pressed both leds are off.

**2- Write Embedded c code to control a 7-segment using two push buttons. ( 8 points)**

***Requirements:***

- The two switches are connected to pin 0 & 1 in PORTA.
- If the switch1 is pressed just increase the number appeared in the 7 segment display, and if the number reach the maximum number (9) do nothing.
- If the switch2 is pressed just decrease the number appeared in the 7 segment display, and if the number reach the minimum number (0) do nothing.

**3- Write Embedded c code to control 2 multiplexed seven segments using two push buttons.**

**, the first one use to count up , and the second one use to count down , when you start your program , number 50 is displayed. ( 10 points)**

***Requirements:***

- If the switch1 is pressed just increase the value appearing in the two multiplexed 7 segment displays.

**EX :- 50 becomes 51 and so on ..**

- If the switch 2 is pressed just decrease the number appearing in the two multiplexed 7 segment displays.

**EX :- 50 becomes 49 and so on ..**

**4- implement the DIO driver ( 6 points)**