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)**