**State your assumptions and show all of your reasoning and all computations. All work must be done on this sheet.**

1. **Port 6 is set to B3 (hex) (10110011) (and all bits have been designated as outputs)**

(8 pts) Write a command to clear BIT 1

P6->OUT &= 0b11111101

(6 pts) What is the new value of Port 6? (Answer can be in binary or Hex)

10110001

1. **Port 4 is set to 0x2B (and all bits have been designated as outputs)**

(8 pts) Write a command to toggle bit 3

P4->OUT ^= BIT3

(6 pts) What is the new value of Port 4? (Answer can be in binary or Hex)

00100011

1. **The following INPUT port pins have been wired accordingly:**

P2.0 -------------RESISTOR -------🡪 GROUND

P2.1 -------------RESISTOR -------🡪 3.3V

P2.2--------------RESISTOR -------🡪 GROUND

P2.3--------------RESISTOR--------🡪 3.3V

(10 pts) What value will be returned to “PRESSED” with the following statement?

**PRESSED = P2IN & 0x08 Answer: 0b00001000**

1. (6 pts) Which command should be executed last when setting up the Systick interrupt:
   1. SysTick -> CTRL = 0x00000007;
   2. \_\_WDT\_A\_holdTimer();
   3. \_\_enable\_irq() ;
   4. Systick\_enableInterrupt();
2. (6 pts) What kind of hardware filter can be used to control switch bounce?
   1. BAND PASS
   2. HIGH PASS
   3. LOW PASS
   4. Can only be done in software