

EE 2920

Dr. Johnson

Homework 4

1 – Evaluate each of the following IN SEQUENCE.

30pts

Initially: P3DIR = 0x55;

P3DIR |= 0x33;

P3DIR =

P3DIR &= 0xCE;

P3DIR =

P3DIR &= ~0x44;

P3DIR =

P3DIR = (1<<5) | (1<<4) | (1<<1);

P3DIR =

P3DIR &= ~((1<<6) | (1<<3));

P3DIR =

2 – Identify the direction(I/O) and value (1,0, use X if unknown) for each the following pins 2,3,4,5,6 given the code below: 30pts

```
P3DIR |= 0xA9;  
P3DIR &= ~0x05;  
P4DIR &= ~0x5A;  
P6DIR = 0xC3;
```

```
P3OUT |= 0x99;  
P4OUT = 0x77;  
P6OUT |= 0xEE;
```

```
P3REN &= ~0x04;  
P4REN |= 0x0F;
```

Pin 2

Pin 3

Pin 4

Pin 5

Pin 6

3 – Write a snippet of code to toggle pin 4 using bit-banding:

40pts

hint: determine the required bit-band address and then use a pointer to change the value

~ 7 lines of code