EE 308 – Homework 5
Due Feb. 23, 2005

1. For the homework problems which follow assume you have included the file iodp256.h in your C program. Thus, you can refer to PORTB when you want to access a byte at address 0x0001. Where I ask for "some code" just write that part of a C program which will do the task. Where I ask for "a program" write a complete program, include the #include "iodp256.h" line, the declaration of variables, the main() function, etc.

2. Write some C code which will make bits 5, 3, 1 and 0 of PORTB output and the other bits of PORTB input.

3. Write some C code which will set bits 7 and 3 of the eight-bit register at address 0x0075 while leaving the other bits unchanged.

4. Write some C code which will clear bits 6 and 4 of the eight-bit register at address 0x0076 while leaving the other bits unchanged.

5. Write a C program which makes PORTA an input, PORTB an output. Then write an infinite loop which reads PORTA, and writes an 0xAA to PORTB if Bit 4 of PORTA is high, and write an 0x33 to PORTB if Bit 4 of PORTA is low.

6. Write a C program which counts the number of negative 16-bit numbers in a table. The table (of 16-bit signed numbers) starts at address 0x8000 and ends at address 0xFFFF. Print the count to the screen, using the printf() function of D Bug-12.