ELE 538 Problem Set 2 (Fall 1999)

Problems

1 Write assembly language code to modify Accumulator A so that its most significant 4 bits are inverted, its next 2 bits are cleared and its lest significant 2 bits are set.

2 Write assembly languge code to initialize the AD converter for single-channel noscan mode using the E clock and channel zero.

3 Initialize the SCI for 9 bits of data, 4800 bps rate and interrupts enabled for receive but not for transmit.

How do you determine the 9th bit upon reception?

4 Initialize the timer and write an interrupt service routine that will be invoked after 2000 clock pulses, then after 3000 clock pulses, then after 4000 clock pulses. The cycle then repeats. (i.e. interrupts should occur at times 2000, 3000, 4000, 2000, 3000, 4000, 2000, ...)