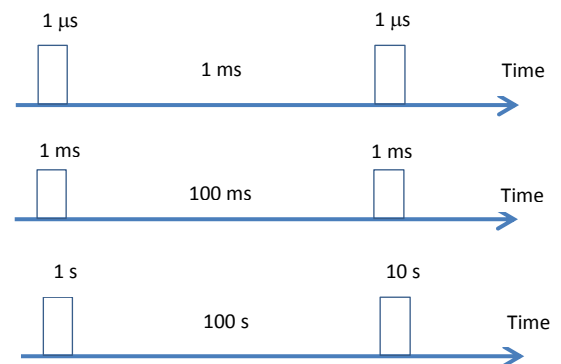# MCU Practice Sheet #2 - 2012

Part 1. Write C8051F020 C code lines to do the following tasks:

- Generation of 1Hz square wave from pin P2.3 assuming a clock frequency of 2 MHz.

- Generation of a periodic 100 kHz binary signal with duty cycle of 30% from pin P1.1 assuming a clock frequency of 20 MHz.

- Generation of the shown periodic waveforms from pin P5.4 using an internal clock of the value of your choice:

Hint: Steps to follow:
1. Compute clock period.
2. Compute the number of clock periods needed for the delay time you want.
3. Choose a timer that allows you to accommodate this number of clocks (with or without clock/12).
4. Write the steps to program the timer using the block diagram as in the lecture.
5. Code the steps into C code using masking.