ECE 375 PRELAB 8

Lab Time: Friday 2-4

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QUESTIONS

1. In this lab, you will be utilizing Timer/Counter1, which can make use of several 16 bit timer registers. The datasheet describes a particular manner in which these registers must be manipulated. To illustrate the process, write a snippet of assembly code that configures OCR1A with a value of 0x3FA5. For the sake of simplicity, you may assume that no interrupts are triggered during your code's operation.

   Assume clock frequency is 16Mhz and no prescale:

```
LDI     r16, 0b00001001
OUT     TCCR1B, r16         ; activate CTC mode, no prescale
LDI     r16, high(0x3FA5)
OUT     OCRA1H, r16         ; write high byte first
LDI     r16, low(0x3FA5)
OUT     OCRA1L, r16         ; write low byte second
```

REFERENCE

ATmega128 Datasheet (Complete)