

ECE 375 Prelab 6

Lab Time: Friday 2 PM - 3:50 PM

Winnie Woo

TA Signature

Questions

1. List the correct sequence of AVR assembly instructions needed to store the contents of registers R25:R24 into Timer/Counter1's 16-bit register, TCNT1. (You may assume that registers R25:R24 have already been initialized to contain some 16-bit value.)

```
sts TCNTIH, r17
sts TCNTIL, r16
```

2. List the correct sequence of AVR assembly instructions needed to load the contents of Timer/Counter1's 16-bit register, TCNT1, into registers R25:R24.

```
lds r24, TCNT1L
lds r25, TCNT1H
```

3. Suppose Timer/Counter0 (an 8-bit timer) has been configured to operate in Normal mode, and with no prescaling (i.e., $\text{clkT0} = \text{clkI/O} = 8 \text{ MHz}$). The decimal value "128" has just been written into Timer/Counter0's 8-bit register, TCNT0. How long will it take for the TOV0 flag to become set? Give your answer as an amount of time, not as a number of cycles.

```
Delay_Normal = Max_value * (Pre-scale/clkio)
Delay_Normal = 16 us
```