

## BME 393L: Prelab 6

### Question-1

**Register:** TCCR0A

**Address:** 0x44

**Role:** This register controls the compare match output mode of the Output compare pins (OC0x). It also partly controls the counting sequence of the counter, the source for maximum (TOP) counter value, and what type of waveform generation to be used.

**Register:** TCNT0

**Address:** 0x46

**Role:** This register allows for Read and Write operations to the Timer/Counter unit 8-bit counter

### Question-2

**Table 1:** Pulse frequency and Interrupt interval frequencies from a 16 MHz clock

$A_1A_0$	Divider Value	Pulse Frequency	(8-bit Counter) Interrupt intervals	(16-bit Counter) Interrupt intervals
00	1	16 MHz	62.5 kHz	244.140625 Hz
01	8	2 MHz	7.8125 kHz	30.51757813 Hz
10	16	1 MHz	3.90625 kHz	15.25878906 Hz
11	64	250 kHz	976.5625 Hz	3.814697266 Hz