**C10 – Interrupt**

3.1 Timer Interrupts

Implementing a blink program where the LED toggles every 400ms. Using timer one I will set the pre-scaler to 265 since this gives us a maximum time period of 1447.2ms. Using compare mode I will set the compare at 18,750 since this will give an exact period of 400ms.

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3.2 ADC Interrupts

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| Indicated frequency = 208,333Hz  208.333 x 2 = 416,666 ADC Samples per Second (x2 since pin in toggled).  ADC Source Clock pre-scaler = 2  ADC Source Clock Frequency = 6MHz  6,000,000 / 416,666 = 14.4 clock cycles ≈ 13 clock cycles (data sheet) |
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3.3 External Interrupts

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| Incrementing | Decrementing |