Lab 7

1- Write a C program to generate a 1000 Hz square wave on PORTB.5 with 50% Duty cycle while at the same time transfer data from PORTC to PORTD, Using Interrupt (don't Use Polling).

| Interrupt | Vector Name |
|--------------------------------|-------------------|
| External Interrupt Request 0 | INT0_vect |
| External Interrupt Request 1 | INT1_vect |
| Pin Change Interrupt Request 0 | PCINTO_vect |
| Pin Change Interrupt Request 1 | PCINT1_vect |
| Pin Change Interrupt Request 2 | PCINT2_vect |
| Watchdog Time-out Interrupt | WDT_vect |
| Timer/Counter2 Compare Match A | TIMER2_COMPA_vect |
| Timer/Counter2 Compare Match B | TIMER2_COMPB_vect |
| Timer/Counter2 Overflow | TIMER2_OVF_vect |
| Timer/Counter1 Capture Event | TIMER1_CAPT_vect |
| Timer/Counter1 Compare Match A | TIMER1_COMPA_vect |
| Timer/Counter1 Compare Match B | TIMER1_COMPB_vect |
| Timer/Counter1 Overflow | TIMER1_OVF_vect |
| Timer/Counter0 Compare Match A | TIMERO_COMPA_vect |
| Timer/Counter0 Compare Match B | TIMERO_COMPB_vect |
| Timer/Counter0 Overflow | TIMER0_OVF_vect |
| SPI Serial Transfer Complete | SPI_STC_vect |
| USART Rx Complete | USART_RX_vect |
| USART Data Register Empty | USART_UDRE_vect |
| USART Tx Complete | USART_TX_vect |

