**4) Write an embedded C program to display square waveform using DAC 0808.**

#include <reg51.h>

// Delay function (approx. 1 ms per unit)

void delay\_ms(unsigned long x) {

unsigned int i, j;

for(i = 0; i < x; i++) {

for(j = 0; j < 500; j++);

}

}

void main() {

while(1) {

P2 = 0x00; // Output LOW (0V)

delay\_ms(500); // Wait

P2 = 0xFF; // Output HIGH (max voltage ~5V)

delay\_ms(500); // Wait

}

}