Experiment No: 3

Title: 8051 – Parallel port interacting of LEDs

Class: T.E. **Year:** **Semester: Five**

Roll No.: **Name:**

Date of performance: **Date of Submission:**

Signature:

AIM: Parallel port interacting of LEDs - Different programs (flashing, Alternate Blinking) on port 2

1. WAP to blink all LED'S
2. WAP to blink ALTERNATE LED'S

S/W AND H/W TOOLS: Keil IDE, 8051 kit, Flash Magic

THEORY:

Microcontroller 8051 has four ports available to which we can interface LEDs, 7-segment display, relay, motor etc. LEDs are connected to port 2 in the kit of 8051. Also 7-segment display is interfaced with port 0.

Seven Segment Display	
Device Pins	**8051 Pins**
A	P0.2
B	P0.7
C	P0.4
D	P0.5
E	P0.6
F	P0.1
G	P0.0
DP	P0.3

Table 2.1: I/O Pins associated with segments of 7-Segment Display

ALGORITHMS

1) WAP to flash LEDs on port 2

i. Send the data 00H to Port 2
ii. Call Delay subroutine
iii. Send the data FFH to Port 2
iv. Call Delay subroutine
v. Repeat steps from (i) to (iv) to toggle LEDs continuously

2) WAP to flash alternate LEDs on port 2

i. Send the data AAH to Port 2
ii. Call Delay subroutine
iii. Send the data 55H to Port 2
iv. Call Delay subroutine
v. Repeat steps from (i) to (iv) to toggle LEDs continuously

INTERFACING DIAGRAM:

PROGRAMS

(1-2 with output wherever possible)

CONCLUSIONS: