Date: 23/02/2021

|  |  |
| --- | --- |
| Student’s name | Anuj Shah |
| Roll Number | 18104B0014 |
| Name of Professor | Prof.Mohit Gujar |

|  |  |
| --- | --- |
| Experiment number | 4 |
| Experiment title | Write assembly language program if the switch is pressed LED should blink in clockwise and if switch is not pressed LED should blink in anti-Clockwise |
| Hardware requirement | 8051 Development kit |
| Software requirement | Keil software |

|  |  |
| --- | --- |
| Aim | Blinking LED’s clockwise and anti-clockwise by checking the status of switch of 8051 Microcontroller. |
| Theory | The complete interfacing of eight LED’s to 8051 using port 0 |
| Algorithm / Flowchart | 1. make the P2.0 as input pin 2. load 01h into P0 3. use JB to check the status of P2.0 4. if P2.0 is set use RL to blink LED in clockwise direction 5. load accumulator value in P0 6. wait for some time 7. if P2.0 is clear use RR to blink LED in Anti-clockwise 8. load accumulator value in P0 9. wait for some time |
| Program | ORG 0000H  SETB P2.0  MOV A,#01H  AGAIN: MOV P0,A  ACALL DELAY  JB P2.0, CLOCK  RR A  SJMP AGAIN  CLOCK : RL A  SJMP AGAIN  DELAY: MOV R0,0FFH  L2:MOV R1,0FFH  L1: DJNZ R1,L1  DJNZ R2,L2  RET  END |
| Results / Output | When switch is pressed  C:\Users\admin\Documents\MCA\MCA EXPERIMENTS\EXP4ONSWITCH.PNG  When switch is not pressed  C:\Users\admin\Documents\MCA\MCA EXPERIMENTS\EXP4OFF.PNG |
| Conclusion | Thus program written for blinking LED’s clockwise and anti-clockwise depending on status of P2.0 is executed successfully. |

|  |  |
| --- | --- |
| Faculty Sign | Grade received |