**LED:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

PPIC\_C EQU 1FH

PPIC EQU 1DH

PPIB EQU 1BH

PPIA EQU 19H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

L1: MOV AL,00000101B

OUT PPIB,AL

CALL DELAY

MOV AL,00000000B

OUT PPIB,AL

CALL DELAY

JMP L1

DELAY: MOV CX,1111111111111111B

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**LED 10 bar:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

PPIC\_C EQU 1FH

PPIC EQU 1DH

PPIB EQU 1BH

PPIA EQU 19H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

mov bh,00001010B

L1: MOV AL,00000001B

OUT PPIB,AL

CALL DELAY

MOV AL,00000000B

OUT PPIB,AL

CALL DELAY

dec bh

cmp bh,00000000B

je end

JMP L1

DELAY: MOV CX,1111111111111111B

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

end:

CODE ENDS

END

**7 SEGMENT:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

PPIC\_C EQU 1FH

PPIC EQU 1DH

PPIB EQU 1BH

PPIA EQU 19H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

L1: MOV AL,01000000B

OUT PPIA,AL

CALL DELAY

MOV AL,11111001B

OUT PPIA,AL

CALL DELAY

JMP L1

DELAY: MOV CX,1111111111111111B

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**Dot col GREEN:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

;

PPIC\_C EQU 1EH ; control register

PPIC EQU 1CH

PPIB EQU 1AH

PPIA EQU 18H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

MOV AL,11111111B

OUT PPIC,AL

MOV AL,11111111B

OUT PPIB,AL

L1: MOV AL,11111110B

L2: OUT PPIA,AL

CALL TIMER

ROL AL,1

JC L2

JMP L1

TIMER: MOV CX,0FFFFH

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**Dot col GREEN(majher4 ta jolbe sudhu upore niche 2 ta kore 4 ta row jolbe na) :**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

;

PPIC\_C EQU 1EH ; control register

PPIC EQU 1CH

PPIB EQU 1AH

PPIA EQU 18H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

MOV AL,00111100B

OUT PPIC,AL

MOV AL,11111111B

OUT PPIB,AL

L1: MOV AL,11111110B

L2: OUT PPIA,AL

CALL TIMER

ROL AL,1

JC L2

JMP L1

TIMER: MOV CX,0FFFFH

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**Dot row RED:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE;

PPIC\_C EQU 1EH

PPIC EQU 1CH

PPIB EQU 1AH

PPIA EQU 18H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

MOV AL,00000000B

OUT PPIB,AL

MOV AL,11111111B

OUT PPIA,AL

L1: MOV AL,00000001B

L2: OUT PPIC,AL

CALL TIMER

ROL AL,1

JNC L2

JMP L1

TIMER: MOV CX,0FFFFH

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**Dot row half RED-half GREEN(4 ta red,4 ta green):**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE;

PPIC\_C EQU 1EH

PPIC EQU 1CH

PPIB EQU 1AH

PPIA EQU 18H

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

MOV AL,11110000B

OUT PPIB,AL

MOV AL,00001111B

OUT PPIA,AL

L1: MOV AL,00000001B

L2: OUT PPIC,AL

CALL TIMER

ROL AL,1

JNC L2

JMP L1

TIMER: MOV CX,0FFFFH

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

CODE ENDS

END

**Dot A:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

;

PPIC\_C EQU 1EH ; control register

PPIC EQU 1CH ; c port

PPIB EQU 1AH

PPIA EQU 18H

;

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

;

MOV AL,11111111B

OUT PPIA,AL

;

L1: MOV SI,OFFSET FONT

;

MOV AH,11111110B

;

L2: MOV AL,BYTE PTR CS:[SI]

OUT PPIC,AL

MOV AL,AH

OUT PPIB,AL

CALL TIMER

INC SI

CLC

ROL AH,1

JC L2

JMP L1

TIMER: MOV CX,300

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

;

FONT:

DB 00000000B

DB 11111100B

DB 00010010B

DB 00010001B

DB 00010001B

DB 00010010B

DB 11111100B

DB 00000000B

CODE ENDS

END

**Dot H:**

CODE SEGMENT

ASSUME CS:CODE,DS:CODE,ES:CODE,SS:CODE

;

PPIC\_C EQU 1EH ; control register

PPIC EQU 1CH ; c port

PPIB EQU 1AH

PPIA EQU 18H

;

ORG 1000H

MOV AL,10000000B

OUT PPIC\_C,AL

;

MOV AL,11111111B

OUT PPIA,AL

;

L1: MOV SI,OFFSET FONT

;

MOV AH,11111110B

;

L2: MOV AL,BYTE PTR CS:[SI]

OUT PPIC,AL

MOV AL,AH

OUT PPIB,AL

CALL TIMER

INC SI

CLC

ROL AH,1

JC L2

JMP L1

TIMER: MOV CX,300

TIMER1: NOP

NOP

NOP

NOP

LOOP TIMER1

RET

;

FONT:

DB 00000000B

DB 11111111B

DB 00011000B

DB 00011000B

DB 00011000B

DB 00011000B

DB 11111111B

DB 00000000B

CODE ENDS

END