Assignment no : 05

Assigment Name: Write an assembly code to glow dots on Dot Matrix Display scroll bottom to top in this order C0(Orange)-C2(Green)-C4(Red).
Assembly Code:

```
g13_as5 SEGMENT
PARA PUBLIC 'CODE'

ASSUME CS:g13_as5

ORG 1000H


START:

    MOV AL,80H

    OUT 1EH,AL


C:

  C0:

    MOV AL,0FEH

    OUT 18H,AL

    MOV AL,0FEH

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L0:LOOP L0


    MOV AL,0FCH

    OUT 18H,AL

    MOV AL,0FCH

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L1:LOOP L1


    MOV AL,0F8H

    OUT 18H,AL

    MOV AL,0F8H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L2:LOOP L2


    MOV AL,0F0H

    OUT 18H,AL

    MOV AL,0F0H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L3:LOOP L3


    MOV AL,0E0H

    OUT 18H,AL

    MOV AL,0E0H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L4:LOOP L4


    MOV AL,0C0H

    OUT 18H,AL

    MOV AL,0C0H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L5:LOOP L5


    MOV AL,080H

    OUT 18H,AL

    MOV AL,080H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L6:LOOP L6


    MOV AL,00H

    OUT 18H,AL

    MOV AL,00H

    OUT 1AH,AL

    MOV AL,01H

    OUT 1CH,AL


    MOV CX,0FFFFH

    L7:LOOP L7


    MOV AL,FFH

    OUT 18H,AL

    MOV AL,FFH

    OUT 1AH,AL

    MOV AL,00H
```

```
    OUT 1CH,AL

    MOV CX,0FFFFH
L8:LOOP L8

C2:
    MOV AL,0FEH
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M0:LOOP M0

    MOV AL,0FCH
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M1:LOOP M1

    MOV AL,0F8H

    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M2:LOOP M2

    MOV AL,0F0H
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M3:LOOP M3

    MOV AL,0E0H
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH

M4:LOOP M4

    MOV AL,0C0H
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M5:LOOP M5

    MOV AL,080H
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H
    OUT 1CH,AL

    MOV CX,0FFFFH
M6:LOOP M6

    MOV AL,00H
    OUT 18H,AL
    MOV AL,0FFH
    OUT 1AH,AL
    MOV AL,04H

    OUT 1CH,AL

    MOV CX,0FFFFH
M7:LOOP M7

    MOV AL,FFH
    OUT 18H,AL
    MOV AL,FFH
    OUT 1AH,AL
    MOV AL,00H
    OUT 1CH,AL

    MOV CX,0FFFFH
M8:LOOP M8

C4:
    MOV AL,0FFH
    OUT 18H,AL
    MOV AL,0FEH
    OUT 1AH,AL
    MOV AL,010H
    OUT 1CH,AL

    MOV CX,0FFFFH
N0:LOOP N0

    MOV AL,0FFH
```

```
OUT 18H,AL
MOV AL,0FCH
OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N1:LOOP N1

MOV AL,0FFH
OUT 18H,AL
MOV AL,0F8H
OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N2:LOOP N2

MOV AL,0FFH
OUT 18H,AL

MOV AL,0F0H
OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N3:LOOP N3

MOV AL,0FFH
OUT 18H,AL
MOV AL,0E0H
OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N4:LOOP N4

MOV AL,0FFH
OUT 18H,AL
MOV AL,0C0H

OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N5:LOOP N5

MOV AL,0FFH
OUT 18H,AL
MOV AL,080H
OUT 1AH,AL
MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N6:LOOP N6

MOV AL,0FFH
OUT 18H,AL
MOV AL,000H
OUT 1AH,AL

MOV AL,010H
OUT 1CH,AL

MOV CX,0FFFFH
N7:LOOP N7

MOV AL,FFH
OUT 18H,AL
MOV AL,FFH
OUT 1AH,AL
MOV AL,00H
OUT 1CH,AL

MOV CX,0FFFFH
N8:LOOP N8
JMP C

g13_as5 ENDS
END START
```