EXPERIMENT - 10

AIM:- TO TAKE INPUT FROM KEYPAD AND DISPLAY THE CORRESPONDING HEX DIGIT ON SEVEN SEGMENT DISPLAY.

CODE:-

```
ORG 0000H
MOV R0,#40H
MOV @R0,#3FH
INC R0
MOV @R0,#06H
INC R0
MOV @R0,#5BH
INC R0
MOV @R0,#4FH
INC R0
MOV @R0,#66H
INC R0
MOV @R0,#6DH
INC R0
MOV @R0,#7DH
INC R0
MOV @R0,#07H
INC R0
MOV @R0,#7FH
INC R0
MOV @R0,#67H
INC R0
MOV @R0,#5FH
INC R0
MOV @R0,#7CH
```

```
INC R0
MOV @R0,#39H
INC R0
MOV @R0,#5EH
INC R0
MOV @R0,#79H
INC R0
MOV @R0,#71H

START:
MOV P0,#00H
MOV P2,#0FFH
MOV P3,#00H
ACALL ROW0
ACALL ROW1
ACALL ROW2
ACALL ROW3

ROW0: MOV R0,#3FH
        MOV P0,#0FEH
        MOV A,P2
        CJNE A,#0FFH,CONT1
        RET
        CONT1: RRC A
                INC R0
                JNC DISPLAY
                JMP CONT1

ROW1: MOV R0,#43H
        MOV P0,#0FDH
        MOV A,P2
```

```asm
            CJNE A,#0FFH,CONT2
            RET
            CONT2: RRC A
                   INC R0
                   JNC DISPLAY
                   JMP CONT2


ROW2: MOV R0,#47H
      MOV P0,#0FBH
      MOV A,P2
      CJNE A,#0FFH,CONT3
      RET
      CONT3: RRC A
             INC R0
             JNC DISPLAY
             JMP CONT3


ROW3: MOV R0,#4BH
      MOV P0,#0F7H
      MOV A,P2
      CJNE A,#0FFH,CONT4
      RET
      CONT4: RRC A
             INC R0
             JNC DISPLAY
             JMP CONT4


DISPLAY:    MOV A,@R0
            MOV P3,A
            ACALL DELAY
            JMP E
```

DELAY:MOV R4,#10
LABEL3:MOV R3,#200
LABEL2:MOV R2,#250
LABEL1:DJNZ R2,LABEL1
DJNZ R3,LABEL2
DJNZ R4,LABEL3
RET
E: NOP
END

OUTPUT:-

```
        START

STORE THE LOOK
TABLE IN MEMORY
FROM 40H

CHECK FOR THE KEY
WHICH IS PRESSED

DISPLAY THE HEX
DIGIT
CORRESPONDING
TO THE KEY

CALL 1 SECOND
DELAY

        END
```