LED ASSIGNMENT

1-Write an ecp to shift the led from left to right one by one @500ms.

ANS:

```
#include<reg51.h>
void delay_1ms(int);
#define LEDS P1
void main()
{
   unsigned char pos=8;
   while(1)
   {
   while(pos>=0)
      {
         LEDS=(1<<--pos)^0x0f;
      delay_1ms(500);

   if(pos==0)
         pos=8;
      }
   }
}

void delay_1ms(int x)
{
   unsigned char i;
   for(;x>0;x--)
   {
      for(i=250;i>0;i--);
      for(i=347;i>0;i--);
   }
}
```

2-Write an ecp to display binary equalent of integer 0 to 255 on 8 leds.

ANS:

```
#include<reg51.h>
void delay_1ms(int);
#define LEDS P1
void main()
{
   unsigned char pos=0;
   while(pos<256)
      {
```

```
        LEDS=(pos++)^0x0f;
        delay_1ms(1000);
      }
   While(1);
   }

void delay_1ms(int x)
{
   unsigned char i;
   for(;x>0;x--)
   {
      for(i=250;i>0;i--);
      for(i=347;i>0;i--);
   }
}
```

SWITCH ASSIGNMENT

1-Write an ALP to control active low LED using active low switch.

ANS:

```
AL_LED BIT P1.0
AL_SW BIT P2.0
CSEG AT 0
MAIN:
JNB AL_SW,LABEL
SETB AL_LED
SJMP LAST
LABEL:
CLR AL_LED
LAST:
JMP MAIN
END
```

2-Write an ECP to control 3 LEDs using 3 switches(NOTE: use 3 AL_LEDS and 3 AL_switches & when switch1 is activated ,only led1 is on and rest of them off)

ANS:

```
#include<reg51.h>
sbit AL_LED1=P1^0;
sbit AL_LED2=P1^1;
sbit AL_LED3=P1^2;
sbit AL_SW1=P2^0;
sbit AL_SW2=P2^1;
sbit AL_SW3=P2^2;
void main()
```

```
{

   while(1)
   {
         AL_LED1=1;
         AL_LED2=1;
         AL_LED3=1;
      if(AL_SW1==0)
         AL_LED1=0;
      if(AL_SW2==0)
         AL_LED2=0;
      if(AL_SW3==0)
         AL_LED3=0;
      }
}
```