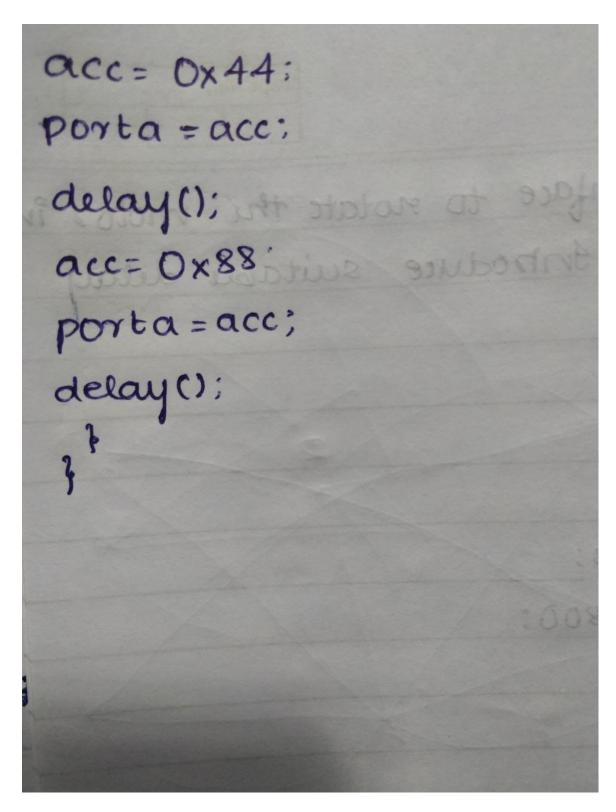
INTERFACING PROGRAMS USING 8051:

11. Drive a steper motor interface to rotate the motor in Anti clockwise by N steps .Introduce suitable delay between successive steps .

```
LAB- 11
O Drive a stepper motor interface to notate the motor in
  Anti clockwise by N steps. Introduce suitable delay
  between successive steps.
  #include < stdio.h>
  #include < reg 51.h>
  chan xdata post-at-0xe803;
  chan xdata porta_at_0xe800;
  charidataacc-at_0x30;
  delay ()
  int j:
  for(j=0;j<800;j++)
  53
  void main()
  POST = Ox80;
  while (1)
  acc = Ox11;
  porta = acc;
  delay();
  acc = 0x22;
  porta = acc;
  delay ():
```



12. Drive a Stepper Motor interface to rotate the motor in clockwise by N steps.

Introduce suitable delay between successive steps

Page No.:

	LAB-IR.
Ī	Drive a stepper Motor interjace to restate the mot
	in clockwise by N steps. Introduce suitable dele
	between successive steps.
	#include <stdio.h></stdio.h>
	#include < reg 51. h)
	charxdata port-at-0xe803;
	charxdata porta-at-0xe800;
	charidataacc_at_0x30;
	delay ()
1	1
	int j;
	tom (j=0;j<800;j++)
	\$ }
	}
	void main()
	1
4	POHE = 0x80;
4	while (1)
	1
	acc = 0x88;
	porta = acc;
	delay();
	acc = 0x44;
	ponta = acc;
	delay();
	acc = 0x22;

Posta = acc; delay(); acc = 0x11 porta = acc; delay();

13. Display messages FIRE and HELP alternately with flickering effects on a 7-segment display interface for a suitable period of time. Ensure a flashing rate that makes it easy to read both the messages

```
LAB 13
Display message FIRE and HELP alternatively with
feickering effects on a 7 segment display interface
for a suitable period of time. Ensure a flashing
nate that make it easy to read both the messages.
# Porlude < stdio.h>
# include < reg 51. h>
charxdata CommW-at-0xe803;
Charadata port B-at-0xe801;
chanxdataportc-at-0xe802;
char port[a0] = { 0x8e, 0xf9, 0x66, 0xff, 0xff,
0xff, 0xff, 0x89, 0x86, 0xc7, 0x8c3,1;
delay ()
for (u=0; u<8000; u++);
void maine)
int d,b,j,m;
unsigned char k;
COMMW = 0x80;
do
i=0;
ton (d=0;d<3;d++)
```

```
tox (b=0; b<4:b++)
   MG = por motto 913H box 3913 UDA
   t[i++]; unique trumpo F 10 NO 212
  ton (j=0;j<8;j++)
 main it can to sund both the manding
  K= K & 0x80;
 if ( == 00)
 bost B = 0x00;
 else
 PortB = 0x01; 38x0, 89x0, 98x0}
 port C = 0x01:
 post C = 0x00:
 K << = 1:
delay();
while (1):
```

14. Display messages BANGALORE in rolling fasion on a 7-segment display interface for a suitable period of time.

LAB 14	Page No.:		
Display menages BANGALDRE in ?	rolling fashion		
on a 7-segment dispray interface	e fox a mitable		
period of time,	1-2-110-11109		
#include < stdio. h>			
# include c reg 51. h>	A COV		
chanxdata commw - at - 0xe803;	.0.40		
chan x datapost B-at - 0xe801;	(00 + 113)		
	00/0 91007		
char port(207 = f 0xft, 0xft, 0xff, 0xff, 0x83, 0x88,			
Oxce, Ox82, Ox88, Oxca, Oxco, Ox			
delay ()	- Advid		
1	:00x0+33 cog		
Long u;	porte occo		
ton (u=0; u< 4000; u++);	JAY 3		
1	K -1:</td		
void main()	1		
7	1		
int d, b, j, m;	i delay 0;		
unsigned chark;			
CommW = 0x80;			
do	(D) styles		
\$			
i=0;			
tox(d=0;d<1;d++)			
1			

```
for (b=13; b>0; b--)
delay();
K: port[i++];
 ton (1=0;j<8;j++)
  m= k;
   K= K& 0x80;
 if ( == 00)
 postB = 0x00;
bost B = 0x01;
POTEC = 0x01;
portc = 0x00;
  K=m;
 K < < = 1:
delay();
while (1);
```

15. Program to demo the elevator interface

```
Lab 15
Program to demo the elevator interface.
                   THE WALL CHE YOUR
#include < stdio h>
# include < neg 51.h>
unsigned chan xdatacommandword-at-0xe803;
unsigned char xdataPortA-at-0xe800;
unsigned chan xdata port B-at-0 xe801;
unsigned char xdata Prisint Floor, Requested Floor,
Step = 0xfo;
unsigned long xdatacount,i,
Delay ()
for (count = 0; Count <= 4500; Count ++);
Reset()
Step = step & Dx Of;
PortA = Step;
step = step 1 0xfo;
Port A = Step;
3
```

```
Goup ()
switch (Requested Floor)

case 0x0d: while (step < 0x +3)
     Step++;
      Port A = Step:
      Delay ();
      Reset ();
    bruak;
case 0x06: while (step < 0x16)
    step + +;
    Port A = step;
   Delay ();
   Ruset();
    bruak;
case 0x07: while (step<0xf9)
    step++;
    Port A = step:
    Delay();
    Reset ();
    break;
```

	Tayo No.
GoDown ()	The state of the s
3	envised bio
switch (Requested Floor)	1
DX882	- brots brown
case 0x0d: while (step > 0xf 3)	-0340 A100
+	Bus out was a B
step;	101000
Posit A = Step;	(1) Nuleu
Delay ();	Requisited Floor -
Requisited Floor & CX (F)	Required Floor
Reset();	confinence and last
	it (Figuesia d'Asso.
can 0x0b: while (step>0xf6)	:09000
5	2635
step;	(Carriologia
Port A = step; callonand	PHUNKINGEROOD :
Delay();	1
13109	Faymore Clock
Reset();	3
break;	1
case 0x0e: while (step>0xf0)	
Step ;	
Port A = Step;	
Pelay():	
,	Linear Cont

```
Reset ();
    break;
void main()
Commandword = 0x82;
 Port A = 0x +0;
 Pousent Floor = 0 x De;
 while (1) }
  Requested floor = Port B;
  Requested Floor = Requested Floor & Oxof;
  if ( Requested Floor != 0 x of & & Requested Floor != Pours AT
   it ( Requested FLOOM < Present Floor)
         GOUPU;
    else
        GoDown();
     Prisent Floor = Requested Floor;
    Requisted Floor = Port B;
```