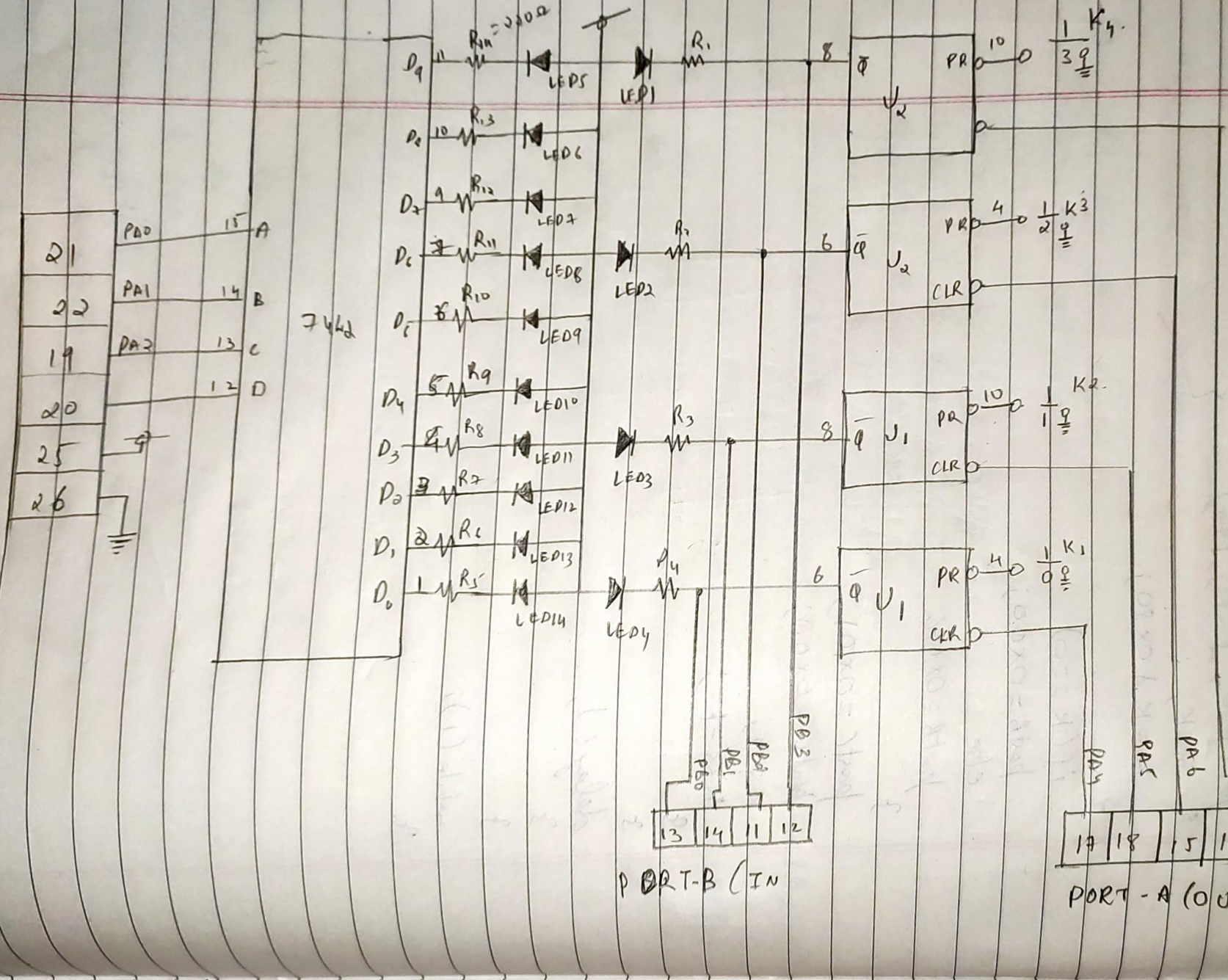
Name :- Tushar. A. Paz

USN :- 1BM19CS174

Program (5)

(5) Elevator interface



PAGE :
DATE : / /

Name : TOSHAN A PAI

USN : 1BM19CS174

Ans

```
#include<stdio.h>
#include<reg51.h>

unsigned char xdataCommandWord _at_ 0xe803;
unsigned char xdataPortA _at_ 0xe800;
unsigned char xdataPortB _at_ 0xe801;

unsigned char xdataPresentFloor, RequestedFloor, Step=0xf0;
unsigned long xdataCount, i;

Delay()
{  for(Count=0; Count<=4500; Count++)
     { }
}

Reset()
{  Step= Step & 0x0f;
   PortA = Step;
   Step = Step | 0xf0;
   PortA = Step;
}

GoUp()
{
  Switch(Requested floor)
  {  case 0x0d: while(Step < 0xf3)
                 {  Step++;
                    PortA = Step;
                    Delay();
                 }
                 Reset();
                 break;
```

Sulekha

Name :- TUSHAR A POL
USN :- 1BM19CS174

```
case 0x0b: while (step < 0xf6)
           { step++;
             PortA = step;
             Delay();
           }
           Reset();
           break;

case 0x07: while (step < 0xf9)
           { step++;
             PortA = step;
             Delay();
           }
           Reset();
           break;
}
}

GoDown()
{
  switch (RequestedFloor)
  {
    case 0x0d: while (step > 0xf3)
               { step--;
                 PortA = step;
                 Delay();
               }
               Reset();
               break;
```

DATE : / /

Name : TOSHAR A. PAI
USN : 1BM19CS174

```
case 0x0b: while (step > 0xf6)
        { step--;
          PortA = step;
          Delay();
        }
        Reset();
        break.

case 0x0e: while (Step > 0xf0)
        { Step--;
          portA = Step;
          Delay(); }
          Reset();
          break;
} }

void main()
{ CommandWord = 0x82;
  PortA = 0xf0;
  PresentFloor = 0x0e;
while (1) {
  RequestedFloor = PortB;
  Requested_Floor = RequestedFloor & 0x0f;

if (RequestedFloor != 0x0f && RequstedFloor != PresentFloor) {
    if (RequestedFloor < PresentFloor)
            GoUP();
    else
    GoDown();
    PresentFloor = RequestedFloor; }
  RequestedFloor = PortB;
}
```