

1.

Derive a stepper motor Interface to rotate the motor in Anti-clockwise direction by N steps

```
#include <stdio.h>
#include <reg51.h>
char xdata port_at_0x803;
char xdata porta_at_0xe800;
char idata acc_at_0x30;
delay()
{
    int j;
    for(j=0; j<800; j++)
    {
        }
    }
}

void main()
{
    port = 0x80;           configure all ports
                           in 8255 as
                           output Port

    while(1)
    {
        acc = 0x11;
        porta = acc;
        delay();
    }
}
```

STUDENT'S NAME		TOTAL MARKS OBTAINED
CLASS	SUBJECT	
ROLL NO.	DATE	

```
acc = 0x22;  
porta = acc;  
delay();
```

```
acc = 0x44;  
porta = acc;  
delay();
```

```
acc = 0x88;  
porta = acc;  
delay();
```

6

6

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Design the stepper motor to rotate the motor in clockwise direction

```
#include <stdio.h>
#include <reg51.h>
char xdata port at 0Xe803;
char xdata porta at 0Xe800;
char idata acc = at 0Xe30;
void delay
{
    for(int i=0; i<800; i++)
    {
        }
    }
void main()
{
    port = 0Xe800;
    while(1)
    {
        acc = 0X88;
        porta = acc;
        delay();

        acc = 0X44;
        porta = acc;
        delay();

        acc = 0X22;
        porta = acc;
        delay();

        acc = 0X11;
        porta = acc;
        delay();
    }
}
```