

Program - 4

Display message BANGALORE in rolling fashion on a 7-segment display interface for a suitable period of time.

```
#include <stdio.h>
#include <reg51.h>
char xdata commW _at_ 0xe803;
char xdata portB _at_ 0xe801;
char xdata portC _at_ 0xe802;
char port[20] = {0xff, 0xff, 0xff, 0xff,
0x83, 0x83, 0xc8, 0x82, 0x88,
0xc7, 0xc0, 0xaf, 0x86, 0xc0};
```

```
delay()
{
    long u;
    for (u=0; u<4000; u++);
}
```

```
void main()
{
    int i, b, j, m;
    unsigned char k;
    commW = 0x80;
    do
    {
        i=0;
        for (d=0; d<1; d++)
        {
            for (b=13; b>0; b--)
            {
                delay();
                k = port[i++];
```

```
for (j=0; j<8; j++)
```

```
    m = k;
```

```
    K = K ^ 0x80;
```

```
    {
```

```
        if (K == 00)
```

```
            port B = 0x00;
```

```
        else
```

```
            port B = 0x01;
```

```
        }
```

```
        port C = 0x01;
```

```
        port C = 0x00;
```

```
        K = m;
```

```
        K <<= 1;
```

```
    }
```

```
    }
```

```
    delay();
```

```
    }
```

```
    }
```

```
    while (1);
```

```
    }
```