



- ③ 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.

Soln:-

```
#include <stdio.h>
#include <reg51.h>
char xdata CommW_at 0xe803;
char xdata portB_at 0xe801;
char xdata portC_at 0xe802;
char port[20] = {0x8e, 0xf9, 0xde, 0x86, 0xff, 0xff, 0xff, 0x89, 0x86, 0xc7, 0x8c};
delay()
{
    long u;
    for(u=0; u<8000; u++);
}
void main()
{
    int d, b, j, m;
    unsigned char k;
    CommW = 0x80;
    do
    {
        i=0;
        for(d=0; d<3; d++)
        {
```

```
for (b=0; b<4; b++)
```

```
{
```

```
    k = port[i++];
```

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

```
    {
```

```
        m = k;
```

```
        k = k & 0x80;
```

```
        {
```

```
            if (k == 00)
```

```
                portB = 0x00;
```

```
            else
```

```
                portB = 0x01;
```

```
        }
```

```
        portC = 0x01;
```

```
        portC = 0x00;
```

```
        k = m;
```

```
        k <<= 1;
```

```
    }
```

```
}
```

```
    delay();
```

```
}
```

```
}
```

```
while (1);
```

```
}
```

— X — X — X — X —