

5a

Interface 8051 with D/A converter and generate triangular wave of given frequency on oscilloscope.

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

```
sbit cs=P3^3;
```

```
sbit wr1=P3^4;
```

```
sbit xfer=P3^5;
```

```
void main()
```

```
{
```

```
    P1 = 0x00;
```

```
    while(1)
```

```
    {
```

```
        cs=0;
```

```
        wr1=1;
```

```
        xfer=1;
```

```
        do
```

```
        {
```

```
            P1+=0x05;
```

```
        }
```

```
        while(P1<=0xff);
```

```
        do
```

```
        {
```

```
P1-=0x05;  
  
}  
  
while(P1>=0x05);  
  
wr1=0;  
  
xfer=0;  
  
}  
  
}
```

Output:

