

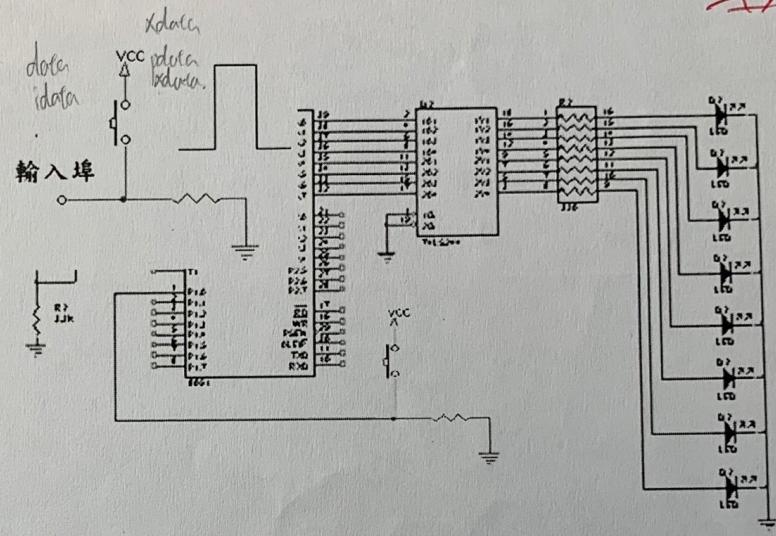
54 3415

can be called by computer when interrupt generate.

[B] Name: 游舜竹 ID: 610902011 interrupt no argument, no return value.

- (5%) (Yes or No) The interrupt function has no arguments and has no return value. *Y*
- (5%) (Yes or No) The interrupt function cannot be called by the microcomputer when an interrupt request is generated. *N*   
 *當產生中斷時自動，不需手叫 請中斷時自動執行*
- (5%) (Yes or No) The interrupt function can be called directly in the program by writing a function call. *N*   
 *automatically not possible, 不能用其它程式叫。*
- (5%) (Yes or No) After calling \_crol\_(c,n) function, the most significant bit will become the least significant bit. *Y*   
 *data*
- (15%) Fill out the blank.

```
#include "BIO.H"
sbit Bn1=P1^0;
void main()
{
    P0=0x11;
    while(1)
    {
        while(Bn1==1);
        delay1ms(20);
        if(P1^0==1)
        {
            P0=RR(P0);
            while(Bn1==0);
            delay1ms(20);
        }
    }
}
```



- (10%) In REG51.H, fill out (a) and (b).

*sfr* (a) PSW=0xD0; *sfr*, 存8bit的register.   
 *sfr16* (b) DPTR=0x82; *sfr16*, 存取16bit的register.

- (25%) Fill out (c), (d), (e), (f) and (g).

char SWIN=~P1;

- (1) To calculate the number of switches turned off. (e.g., count)

for(int i=0;i<8;i++)

```
{
    if((c))
    {
        count++;
        SWIN=SWIN>>1;
    }
}
```

*If (SWIN & 0x01) == 0.*

*10001010*  
*0x8 10010100 = 0x84*  
*01101011 -> (6b)*  
*+ 11111111 = 0xFF*

-25  
+5

- (2) To detect whether the switches connected to P1.2, P1.4 and P1.7 are on.

if((SWIN & (d))==(e)) *(d) 0x94 (e) 0x94*

- (3) To detect whether the switches connected to P1.1, P1.3 and P1.7 are on.

if((SWIN | (f))==(g))

*XXXXXX*  
*10001010*  
*1XXXXX*  
*11111111*

*(f) 0xFF (g) 0xFF*

*0000*  
*00000010*  
*00000100*  
*00000111*

*10001010*  
*94*  
*11001100*

1992



