2025

C 3

C

1.

1

2

2.

1

2

3.

1

2

4.

1 RC RL RC RL

2

5.

7.

1

2

8.

1

TTL

CMOS

2

9.

1

2

74LS138 74LS47/48

10.

1

2 74LS160

C

1. C

   1

   2 C

   3 C

   4 C

2.

   1

   2

   3

3.

   1

   2 C

   3

4.

   1

   2

   3 if

   4

   5 switch

5.

   1

   2

   3

   4 break continue

6.

1

2

3

7.

1

2

3

4

5

6

8.

1

2

3

4

9.

1

2

3

4

10.

1

2

3

4

1.

1

2

3

4

5　　OSI　TCP/IP

2.

1

2

3

4

5

3.

1

2

3

4　　ARP

5

6　　CSMA/CD

7

4.

1

2　　NAT　ICMP

3 RIP OSPF

4

5 IP IP IPv4 IPv6

6 IP

7 ping traceroute

8

5.

1

2

3 UDP TCP

4 TCP

6.

1

2 WWW

3 FTP

4

5 DHCP

6

300 100 C

100 100

150

	30	120
	15	45
	30	60
	3	45
	3	30

1. NPN 1.2V 1.9V 1.3V

A. B.

C. D.

B

2. C

A.'\t' B."A"

C.65 D.A

A

3. TCP

1. TTL

2. C main( )

3. TCP/IP TCP

1. R_1=30Ω R_2=60Ω R_1 R_2
_____Ω R_1 R_2 _____Ω
90 20

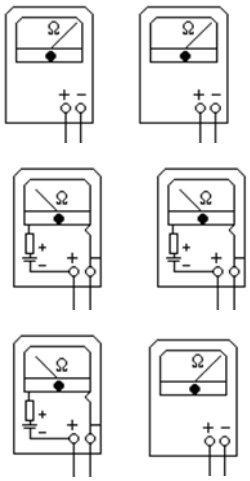
2. int a=1 b=2 c=3 ++a||++b ++a
b _____
2

3. _____

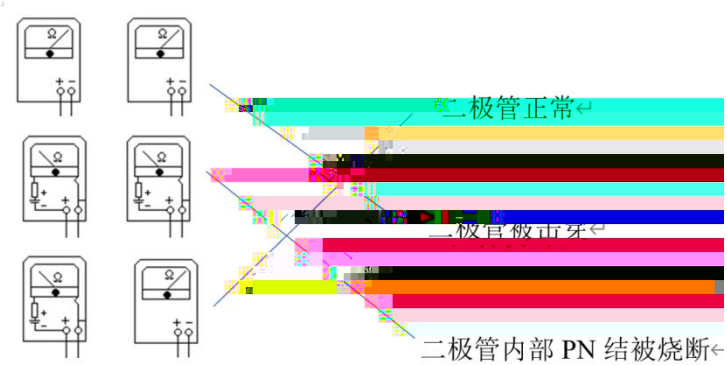
1.
1 _____
_____

2
_____
_____

3



PN



2.

get_max 3 4

```
#include <stdio.h>
int main( )
{  1  ;
int a[3][4]={{1,5,3,4},{9,11,7,6},{-10,10,-5,2}}   max;
```

```
    max=   2   ;
    printf    "max=%d\n", max    ;
return 0;
}
int get_max(int a[][4])
{
int *p,*end;
int max = a[0][0];
end = a[0]+12;
        for (p=a[0]; p < end;   3   )
            if (   4   )
                    max = *p;
          return   5   ;
}
```

1 int get_max(int a[][4])

2 get_max(a)

3 p++

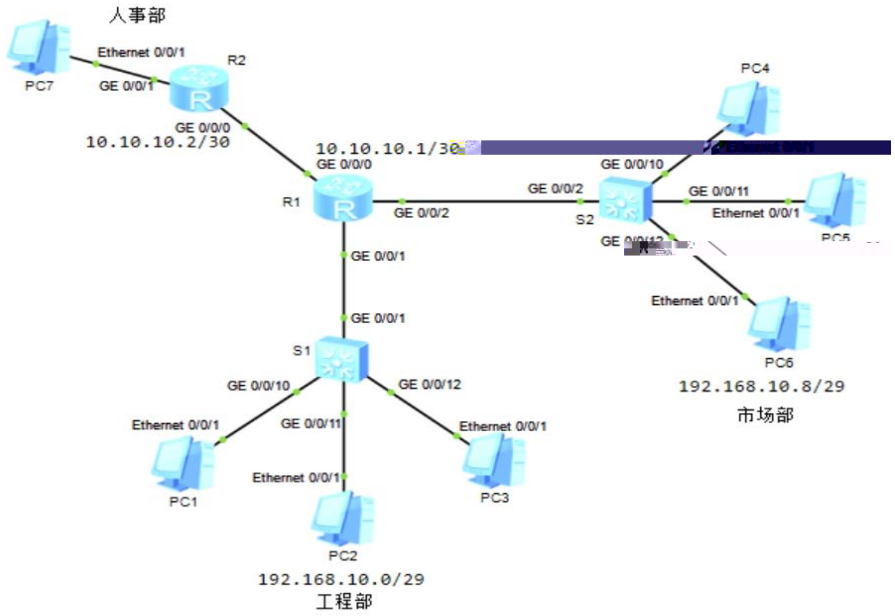
4 max<*p

5 max

3.

1 PC IP

2 IP



		IP		
PC1	Ethernet0/0/1			
PC2	Ethernet0/0/1			
PC3	Ethernet0/0/1			
PC4	Ethernet0/0/1			
PC5	Ethernet0/0/1			
PC6	Ethernet0/0/1			
R1	GE0/0/1			
R1	GE0/0/2			

		IP		
PC1	Ethernet0/0/1	192.168.10.1	255.255.255.248	192.168.10.6
PC2	Ethernet0/0/1	192.168.10.2	255.255.255.248	192.168.10.6
PC3	Ethernet0/0/1	192.168.10.3	255.255.255.248	192.168.10.6

PC4	Ethernet0/0/1	192.168.10.9	255.255.255.248	192.168.10.14
PC5	Ethernet0/0/1	192.168.10.10	255.255.255.248	192.168.10.14
PC6	Ethernet0/0/1	192.168.10.11	255.255.255.248	192.168.10.14
R1	GE0/0/1	192.168.10.6	255.255.255.248	
R1	GE0/0/2	192.168.10.14	255.255.255.248	

R1 0.0.0.0 0.0.0.0 10.10.10.2

R2 0.0.0.0 0.0.0.0 10.10.10.1

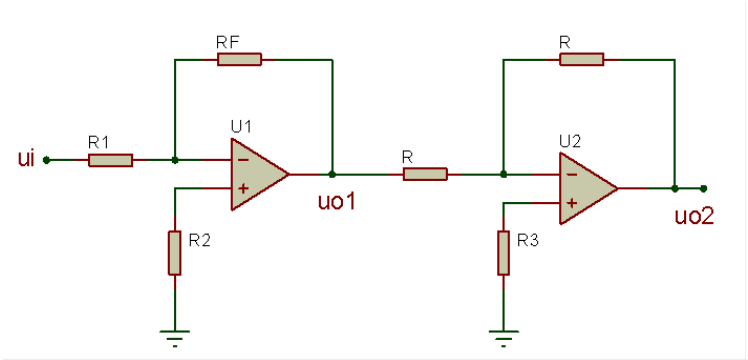
（ ）

1. U1 U2

+15V -15V

1 RF=100K R1=10K ui=0.5V uo1 uo2

2 R=10K R2 R3



1 1 Av1=-RF/R1=-10

uo1=ui*Av1=0.5*(-10)=-5V;

2 Av2=-R/R=-1

uo2=uo1*Av2=-5*(-1)=5V;

2 R2=RF//R1=100K//10K≈10K;

R3= R//R=10K//10K=5K;

2. C n n≤1000

1+2+3+…+n

```
#include <stdio.h>
main()
{
  int n=0,sum=0;
  printf("                0~1000            :");
  scanf("%d",&n);
  if(n>0 && n<=1000)
  {
      for(i=1;i<=n;i++)
           {
             sum=sum+i;
           }
        printf("sum=%d",sum);
  }
  else
  {
      printf("              :");
  }
}
```

3.

172.16.1.128/25

· 50 IP

· 60 IP

172.16.1.129-172.16.1.190

255.255.255.192

172.16.1.128

172.16.1.191

172.16.1.193-172.16.1.254

255.255.255.192

172.16.1.192

172.16.1.255