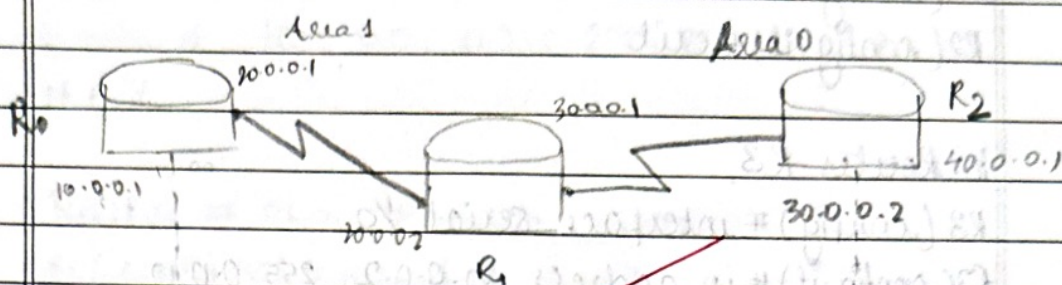


How to configure : OSPF Routing & connect Areas.



P0 [] 10.0.0.10
10.0.0.1

P1 [] 40.0.0.10
40.0.0.1

PROCEDURE :

R1(config)# interface fastethernet 2/0

R1(config-if)# ip address 10.0.0.1 255.0.0.0

R1(config-if)# no shutdown

R1(config-if)# exit

R1(config)# interface serial 4/0

R1(config-if)# ip address 20.0.0.1 255.0.0.0

R1(config-if)# encapsulation ppp

R1(config-if)# clock rate 64000

R1(config-if)# no shutdown

R1(config-if)# exit

In router 2.

R2(config)# interface serial 0/0

R2(config-if)# ip address 20.0.0.2 255.0.0.0

R2(config-if)# encapsulation ppp

R2(config-if)# no shutdown

R2(config-if)# exit

R2(config)# interface serial 1/1

R2(config-if)# ip address 30.0.0.1 255.0.0.0

R2(config-if)# encapsulation ppp

R2(config-if) # clock rate 64000

R2(config-if) # shutdown

R2(config-if) # exit

In Router R3,

R3(config) # interface serial 0

R3(config-if) # ip address 30.0.0.2 255.0.0.0

R3(config-if) # encapsulation ppp

R3(config-if) # no shutdown

R3(config-if) # exit

~~R3(config) # interface fastethernet 2/0~~

~~R3(config-if) # ip address 40.0.0.1 255.0.0.0~~

~~R3(config-if) # no shutdown~~

~~R3(config-if) # exit~~

3.

In router 1

R1(config) # router ospf 1

R1(config-^{router}router) # router-id 1.1.1.1

R1() # network 10.0.0.0 0.255.255.255 area

R1() # network 20.0.0.0 0.255.255.255 area

R1() # exit

In Router 2

R2(config) # router ospf 1

R2(config-~~router~~) # router-id 2.2.2.2

R2() # network 20.0.0.0 0.255.255.255 area

R2() # network 30.0.0.0 0.255.255.255 area

R2() # exit

In Router R3

router ospf 1


```
# router-id 3.3.3
```

```
# network 30.0.0.0 0.255.255.255 area 0
```

```
# network 40.0.0.0 0.255.255.255 area 2
```

```
# exit
```

```
Router # show IP route
```

```
R1 (config-if) # interface loopback 0
```

```
R1 (config-if) # ip address 172.16.1.252 255.255.0.0
```

```
R1 (config-if) # no shutdown
```

```
R2 (config-if) # interface loopback 0
```

```
R2 (config-if) # ip address 172.16.1.253 255.255.0.0
```

```
R2 (config-if) # no shutdown
```

```
R3 (config-if) # interface loopback 0
```

```
# ip address 172.16.1.254 255.255.0.0
```

```
# no shutdown
```

```
R3 # show ip route
```

```
In Router R1
```

```
R1 (config) # router ospf 1
```

```
R1 (config-router) # area 1 virtual-link 2.2.2.2
```

```
R2 (config-router) # area 1 virtual-link 1.1.1.1
```

```
R2 (config-router) # exit
```

```
R3 # show ip route
```

⇒ OBSERVATION :

Ping 40.0.0.10 : 56 bytes

64 bytes from 40.0.0.10: seq 1 TTL=61 time=143.753 ms

A bytes from 40.0.0.10 : seq 2 TTL=61 time=64.723 ms

P bytes from 40.0.0.10 : seq 3 TTL=61 time=66.522 ms

A bytes from 40.0.0.10 : seq 4 TTL=61 time=60.924 ms

P bytes from 40.0.0.10 : seq 5 TTL=61 time=96.129 ms