**ROUTER 0:**

Router>enable

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet0/0

Router(config-if)#exit

Router(config)#router ospf 1

Router(config-router)#network 192.168.10.0 0.0.0.255 area 0

Router(config-router)#router-id 10.0.0.1

Router(config-router)#Reload or use "clear ip ospf process" command, for this to take effect

**Router#show ip route**

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

\* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

C 10.0.0.0/8 is directly connected, Serial2/0

R 11.0.0.0/8 [120/1] via 10.0.0.2, 00:00:19, Serial2/0

C 192.168.10.0/24 is directly connected, FastEthernet0/0

R 192.168.20.0/24 [120/1] via 10.0.0.2, 00:00:19, Serial2/0

R 192.168.30.0/24 [120/2] via 10.0.0.2, 00:00:19, Serial2/0

**Router#show ip ospf**

Routing Process "ospf 1" with ID 192.168.10.1

Supports only single TOS(TOS0) routes

Supports opaque LSA

SPF schedule delay 5 secs, Hold time between two SPFs 10 secs

Minimum LSA interval 5 secs. Minimum LSA arrival 1 secs

Number of external LSA 0. Checksum Sum 0x000000

Number of opaque AS LSA 0. Checksum Sum 0x000000

Number of DCbitless external and opaque AS LSA 0

Number of DoNotAge external and opaque AS LSA 0

Number of areas in this router is 1. 1 normal 0 stub 0 nssa

External flood list length 0

Area BACKBONE(0)

Number of interfaces in this area is 1

Area has no authentication

SPF algorithm executed 1 times

Area ranges are

Number of LSA 1. Checksum Sum 0x005d9a

Number of opaque link LSA 0. Checksum Sum 0x000000

Number of DCbitless LSA 0

Number of indication LSA 0

Number of DoNotAge LSA 0

Flood list length 0

**ROUTER 1:**

Router>enable

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet0/0

Router(config-if)#exit

Router(config)#router ospf 2

Router(config-router)#network 192.168.20.0 0.0.0.255 area 0

Router(config-router)#router-id 10.0.0.2

Router(config-router)#Reload or use "clear ip ospf process" command, for this to take effect

%SYS-5-CONFIG\_I: Configured from console by console

Router#show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

\* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

C 10.0.0.0/8 is directly connected, Serial2/0

C 11.0.0.0/8 is directly connected, Serial3/0

R 192.168.10.0/24 [120/1] via 10.0.0.1, 00:00:15, Serial2/0

C 192.168.20.0/24 is directly connected, FastEthernet0/0

R 192.168.30.0/24 [120/1] via 11.0.0.2, 00:00:17, Serial3/0

**ROUTER 2:**

Router>enable

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface FastEthernet 0/0

Router(config-if)#exit

Router(config)#router ospf 3

Router(config-router)#network 192.168.30.0 0.0.0.255 area 0

Router(config-router)#router-id 11.0.0.2

Router(config-router)#Reload or use "clear ip ospf process" command, for this to take effect

Router(config-router)#^Z

Router#

%SYS-5-CONFIG\_I: Configured from console by console

Router#show ip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

\* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

R 10.0.0.0/8 [120/1] via 11.0.0.1, 00:00:27, Serial2/0

C 11.0.0.0/8 is directly connected, Serial2/0

R 192.168.10.0/24 [120/2] via 11.0.0.1, 00:00:27, Serial2/0

R 192.168.20.0/24 [120/1] via 11.0.0.1, 00:00:27, Serial2/0

C 192.168.30.0/24 is directly connected, FastEthernet0/0