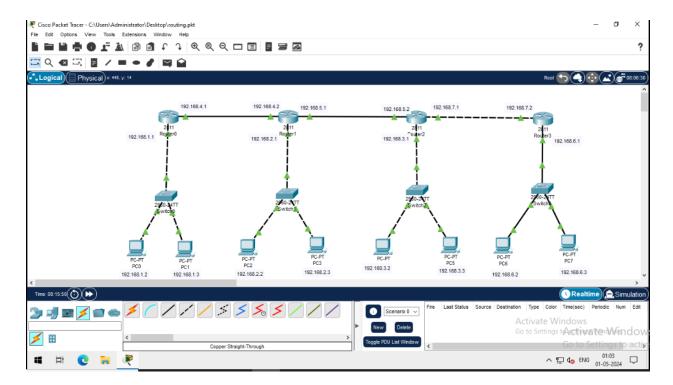
# **OSPF ROUTING**



Give ip address to all pc's and ports of routers according to the above figure .

### **Ospf in Router 1**

```
Router>
Router>en
Enter configuration commands, one per line. End with CNTL/2.
Router(config) #router ospf 17
Router(config-router) #network 192.168.1.0 0.0.0.255

    Incomplete command.

Router(config-router) #network 192.168.1.0 0.0.0.255 area 0
Router(config-router) #network 192.168.4.0 0.0.0.255 area 0
Router(config-router) fexit
Router (config) fexit
Router#
%SYS-5-CONFIG I: Configured from console by console
Router#sh ip rou
Router#sh ip route
Router#sh ip route
Codes: L = local, C = connected, S = static, 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
* - candidate default, U - per-user static route, o - ODR
          P - periodic downloaded static route
Gateway of last resort is not set
       192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
            192.168.1.0/24 is directly connected, FastEthernet0/0
192.168.1.1/32 is directly connected, FastEthernet0/0
       192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
192.168.4.0/24 is directly connected, FastEthernet0/1
192.168.4.1/32 is directly connected, FastEthernet0/1
```

#### In router 2,

```
Router(config) #router ospf 17
Router(config-router) #network 192.168.4.0 0.0.0.255 area 0
Router(config-router) #network 192.168.4.0 0.0.0.255 area 0
00:19:24: %OSPF-5-ADJCHG: Process 17, Nbr 192.168.4.1 on Ethernet1/0
Router(config-router) #network 192.168.2.0 0.0.0.255 area 0
Router(config-router) #network 192.168.5.0 0.0.0.255 area 0
Router (config-router) #exit
Router(config) #exit
Router:
SYS-5-CONFIG_I: Configured from console by console
Router#sh ip route br
Router#sh ip route br
Router#sh ip route
Router#sh ip route

Codes: L - local, C - connected, S - static, 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
      192.168.1.0/24 [110/11] via 192.168.4.1, 00:00:50, Ethernet1/0
      192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
          192.168.2.0/24 is directly connected, FastEthernet0/0
          192.168.2.1/32 is directly connected, FastEthernet0/0
      192.168.4.0/24 is variably subnetted, 2 subnets, 2 masks
          192.168.4.0/24 is directly connected, Ethernet1/0
          192.168.4.2/32 is directly connected, Ethernet1/0
      192.168.5.0/24 is variably subnetted, 2 subnets, 2 masks
          192.168.5.0/24 is directly connected, FastEthernet0/1
          192.168.5.1/32 is directly connected, FastEthernet0/1
Router#
```

# Router 3,

```
Router(config-if) #
Router(config-if) #exit
Router(config-if) #exit
Router(config-f) #router ospf 17
Router(config-router) #network 192.168.3.0 0.0.0.255 area 0
Router(config-router) #network 192.168.5.0 0.0.0.255 area 0
Router(config-router) #network 192.168.7.0 0.0.0.255 area 0
Router(config-router) #network 192.168.7.0 0.0.0.255 area 0
Router(config-router) #exit
Router(config-fouter) #exit
Router#
%SYS-5-CONFIG_I: Configured from console by console
```

# Router 4,

```
Router#conf ter
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#router ospf 17
Router(config-router)#netw
Router(config-router)#network 192.168.6.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#network 192.168.7.0 0.0.0.255 area 0
Router(config-router)#exit
Router#
```

```
₱ PC0

                                                                                                                                ×
        Physical Config Desktop Programming Attributes
         Command Prompt
                                                                                                                                         Х
        Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.6.3
4.1
        Pinging 192.168.6.3 with 32 bytes of data:
        Request timed out.
        Reply from 192.168.6.3: bytes=32 time=10ms TTL=124
Reply from 192.168.6.3: bytes=32 time<1ms TTL=124
Reply from 192.168.6.3: bytes=32 time=2ms TTL=124
        Ping statistics for 192.168.6.3:
        Packets: Sent = 4, Received = 3, Lost = 1 (25% loss), Approximate round trip times in milli-seconds:
              Minimum = 0ms, Maximum = 10ms, Average = 4ms
        C:\>ping 192.168.3.3
        Pinging 192.168.3.3 with 32 bytes of data:
        Request timed out.
        Reply from 192.168.3.3: bytes=32 time=10ms TTL=125
Reply from 192.168.3.3: bytes=32 time<1ms TTL=125
Reply from 192.168.3.3: bytes=32 time<1ms TTL=125
        Ding statistics for 192.168.3.3:
         Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
              Minimum = 0ms, Maximum = 10ms, Average = 3ms
        C:\>
                                                                                                                                                     Type
                                                                                                                                                   tiva
  Тор
```

Done!!!