Objective: Configure routing information protocol in routers

TTL = 254 IP: 20.0.0.1
30.0.0.1
Se 3/0
40.0.0.2
Se2/6   fa/0/0
TTL = 253
30.0.0.1
se3/0   Router Q
so   switch
60.2
fo/0   P

TTL = 255 40.0.0.0.1
Se2/0
10.0.0.1
Router O
fo/0

fo0/1
Switch1
B1/1   fa2/1

fo0/1
Switch 2

fa0/1
Fo1/1   fa 2/1

fa 1/1   fa 2/1
SwitchD

IP: 20-0.0.2 IP 20.0.0.3
DG = 20.0.0.1 DG 20.0.0.1

PC0   PC 1
IP: 10.0.0.2   IP:10.0.0.3
DG: 10.0.0.1   DG: 10.0.0.1

IP: 30.0.0.2   IP:30.0.0.3
DG: 30.0.0.1   DG = 30.0.0.1
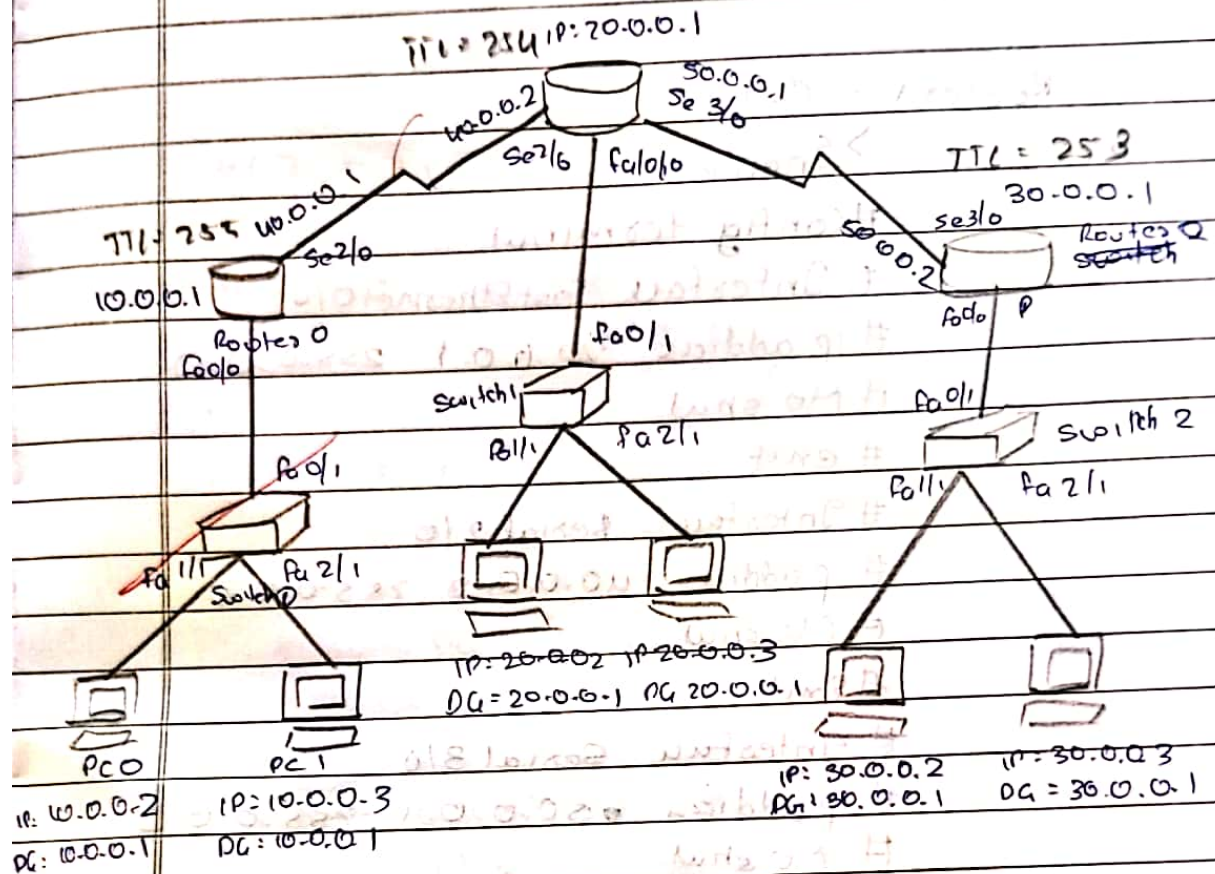
Procedure

Step 1: Place 3 routers, 3 switches and 6 PC's and connect them as shown above

Step 2: Configure the routers

Router-O Router → CLI

> enable

config terminal

interface fast Ethernet 0/0

ip address 10.0.0.1 255.0.0.0

No shw

exit

interface Serial 2/0
ip address 40.0.0.1   255.0.0.0
No shut
exit

Router 1 : CLI :-
> Enable
Config terminal
Interface Fost Ethernet 0/0
ip address 20.0.0.1   255.0.0.0
No shut
exit
Interface Serial 2/0
ip address 40.0.0.2 255.0.0.0
No shut
Exit
Interface Serial 3/0
ip address 50.0.0.1 255.0.0.0
No shut
Exit

Router 2 : CLI :-
> Enable
config terminal
Interface Fost Ethernet 0/0
ip address 30.0.0.1   255.0.0.0
No shut
Ext
interface Serial 3/0
ip address 50.0.0.2 255.0.0.0
No shut
Exit.

Step 3: Configure PCO with
    IP: 10.0.0.2
    D.G: 10.0.0.1
PC1 --> IP: 10.0.0.3
      DG: 10.0.0.1

PC2 --> IP: 20.0.0.2
      DG= 20.0.0.1
PC3 --> IP: 20.0.0.3
      DG= 20.0.0.1

PC4 --> IP = 30.0.0.2
      DG: 30.0.0.1
PC5 --> IP = 30.0.0.3
      DG: 30.0.0.1

Step 4:
   Router 0 --> CLI
     > Enable
     # config terminal
     # router rip
     # network 10.0.0.0
     # network 40.0.0.0
     # exit

   Router 1 --> CLI
     > Enable
     # config terminal
     # router rip
     # network 20.0.0.0
     # network 40.0.0.0
     # network 50.0.0.0
     # exit

Router2: CLI

> Enable
Config terminal
Router rip
Network   30.0.0.0
network   50.0.0.0
exit

Observation
① All connections successful
② ping 30.0.0.2

pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2 : bytes = 32 time=11ms TTL=12
Reply from 30.0.0.2: bytes=32 time:8ms TTL=12
Reply from 30.0.0.2: bytes =32 time = 2ms JTL=125
Reply from 30.0.0.2: bytes= 32 time = 6ms JTL=125

Ping statistics for for 30.0.0.2:
    Packets: Sent=4, Recieved=4, lost=0 (0% loss)

    After completing the configuration if we ping
    PCO

    PC> ping 30.0.0.2
         pinging 30.0.0.2 with 32 bytes of dat
         Reply from .10.0.0.1: Destnation lost
                                 unreachable
         Reply from w.0.0.1: Destnatio lost unreachable
         Reply from 10.0.0.1 Destnation lost unreachable
         Reply from 10.0.01: Destination lost unreachable