LAB 07
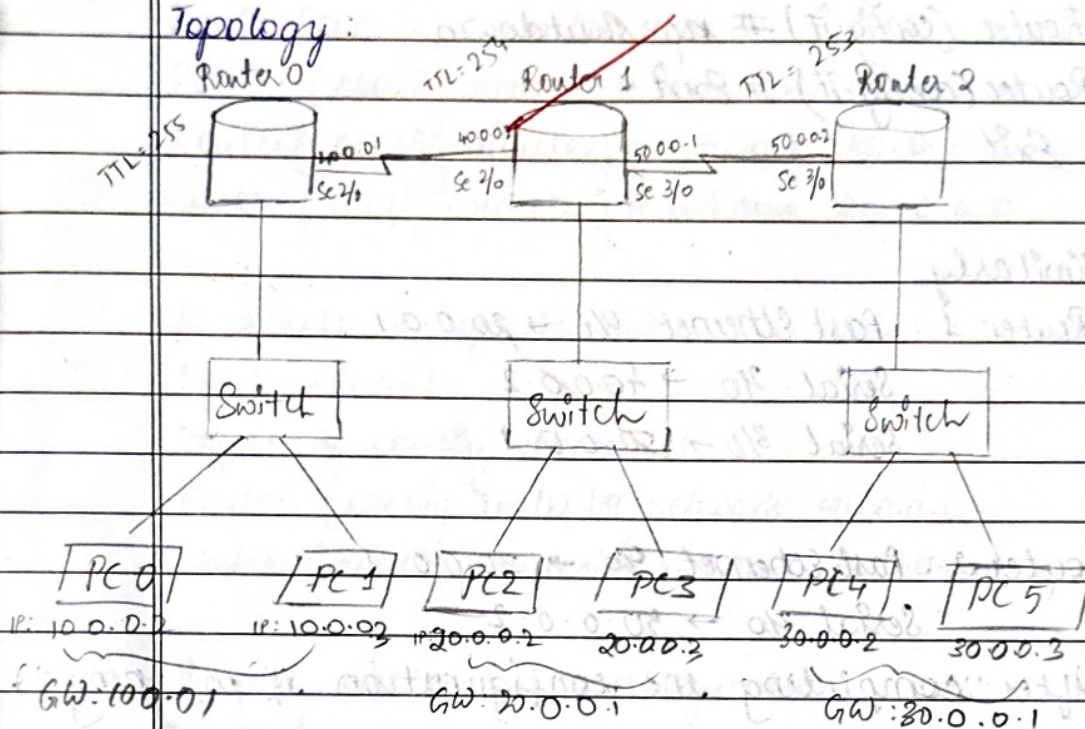
Objective : Configure routing information protocol in routers

Topology :

Procedure :

- Select 3 routers, 3 switches, 6 end devices. Connect 2 end devices to a switch and the switch to a router. Connect the 3 routers.

- Configure the router and the end devices.

Routers

Go to CLI

type Router 0 :

  Router > Enable

  Router # Config Terminal

  Router (config) # interface fast Ethernet %

  Router (config-if) # ip address 10.0.0.1 255.0.0.0

  Router (config-if) # no shutdown

  Router (config-if) # Exit

Exit

Router (config) # interface Serial 2/0

Router (config-it) # ip address 40.0.0.1 255.0.0.0

Router (config-it) # no shutdown

Router (config-if) # Exit

   Exit

Similarly

Router 1 : Fast Ethernet 0/0 → 20.0.0.1

               Serial 2/0 → 40.0.0.2

               Serial 3/0 → 50.0.0.1

Router 2 : Fast Ethernet 9/0 → 20.0.0.1

               Serial 2/0 → 50.0.0.2

After completing the configuration if we ping

PC 0

PC7 ping 20.0.0.2

pinging 20.0.0.2 with 32 bytes of data.
   Reply from 10.0.0.1 : Destination host unreachable
   Reply from 10.0.0.1 :

Now to resolve this

In router 0 go to CLI

Router > enable

Router # config terminal

Router (config) # router rip

Router (config-router) # network 10.0.0.0

Router (config-router) # network 40.0.0.0

In router 1 go to CLI
Router r enable
Router # config Terminal
Router (config) # router rip
Router (config-router) # network 40.0.0.0
Router (config-router) # network 50.0.0.0
Router (config-router) # network 20.0.0.0

In router 2 go to CLI.
Router > Enable
Router # config terminal
Router (config-router)# network 50.0.0.0
Router (config-router) # network 30.0.0.0

Pinging after this configuration
In Router 0 → command prompt
PC> ping 30.0.0.2
 Reply from 30.0.0.2 bytes = 32 time = 2ms ←TTL=12
 Reply from 30.0.0.2 bytes = 32 time = 2ms TTL = 126
 Reply from 30.0.0.2 bytes = 32 time = 2ms TTL = 126
 Reply from 30.0.0.2 bytes=32 time = 2ms TTL = 126
ping statistics for 30.0.0.2
Packets : sent = 4 , Recieved = 4 , Lost = 0 (00% Loss)

Observation :
The IP address is set for all the end devices
We try to ping devices accross the router