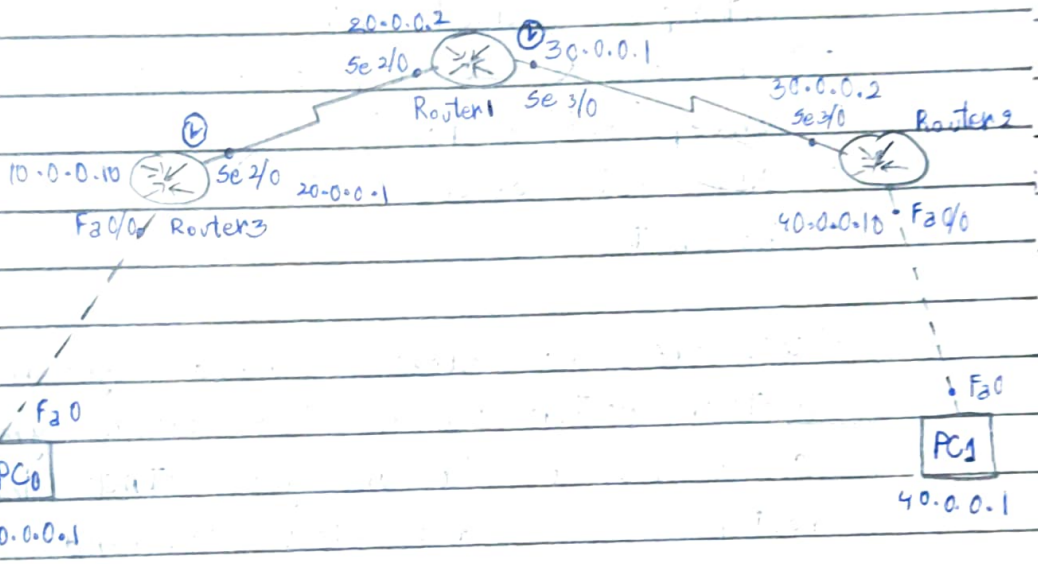
Lab-5

Aim: Configuring RIP Routing Protocol in Routers

Topology:



Procedure:

1) Place 3 Generic-routers, 2 Generic-PC's and place notes to indicate respective IP addresses.
2) Use copper cross over cable to connect PC's with routers and serial DCE to connect router's
3) Set IP address, gateway and subnet mask as 10.0.0.1, 10.0.0.10, 255.0.0.0 for PC0 and 40.0.0.1, 40.0.0.10 and 255.0.0.0 for PC1

4) For Interfaceing : PC0 and router3 and serial 2/0 of router3 use the following commands

→ enable
→ config-t
→ interface fastethernet 0/0
→ no shut
→ exit
→ interface serial 2/0
→ ip address 20.0.0.1 255.0.0.0
→ encapsulation ppp
→ clock rate 64000
→ no shut

5) Use the same above commands for interfacing another router which has clock symbol in one cable near to it and for other interfaces of routers use same above commands but don't use "clock rate 64000" command

6) Once all lights turn green you have set RIP protocal by using following commands

→ Router RIP
→ network 10.0.0.0
→ network 20.0.0.0
→ exit

7) Repeat above commands for all all routers with network address they known.

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Observation

Learning Outcome :

→ Instead of using static IP routing for all routers by using RIP protocal routing becomes easy when large number of routers are present

Result : ping 40.0.0.10

pinging 40.0.0.10 with 32 bytes of data :

Reply from 40.0.0.10 : bytes = 32 time = 14ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 14ms TTL = 125
Reply from 40.0.0.1 : bytes = 32 time = 12ms TTL = 125

Ping statistics for 40.0.0.1 :

Packets : Sent = 4, Received = 4, Lost = 0 (0% Loss)
Approximate round trip times in milli-seconds :
Minimum = 2ms, Maximum = 14ms, Average = 10ms