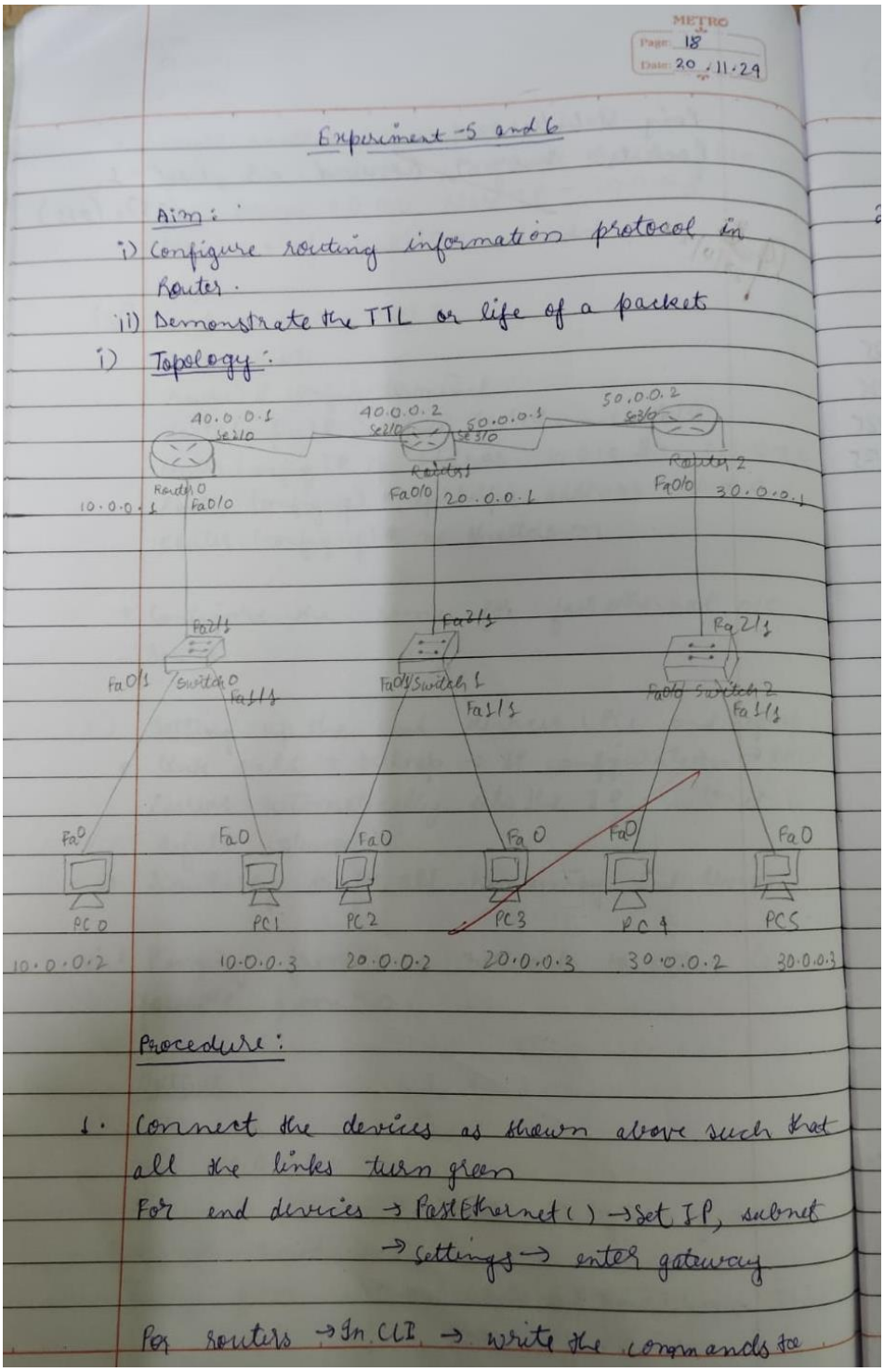
Program 6

Aim: Configure RIP routing Protocol in Routers .

Topology , Procedure and Observation:



setup all the IP addresses of the routers.

2. For routing
For each router go to CLI and enter
Ex: Router 1
Router > 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

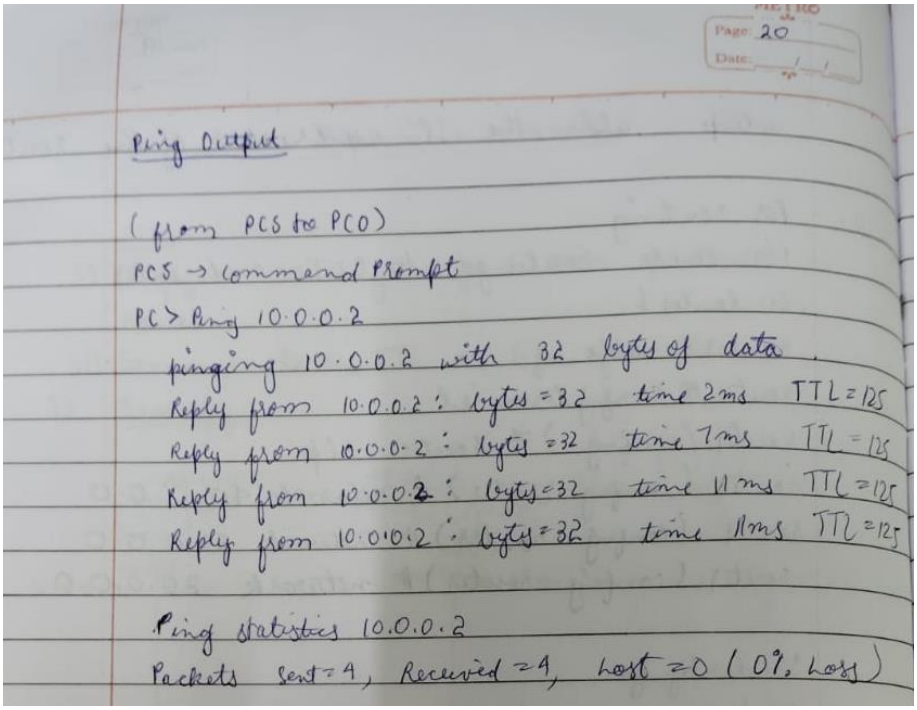
Similarly for
Router 0 → connect to network 10.0.0.0 and 40.0.0.0
Router 2 → connect to network 50.0.0.0 and 30.0.0.0

3. Once this setup is complete, we can the message from one device to any other end device.

Output:

In Router 0
router # show ip route
C 10.0.0.0/8 is directly connected, fastEthernet 0/0
R 20.0.0.0/8 [120/1] via 40.0.0.2, 00:00:15, Serial 2/0
R 30.0.0.0/8 [120/1] via 40.0.0.2, 00:00:15, Serial 2/0
C 40.0.0.0/8 is directly connected, Serial 2/0
R 50.0.0.0/8 [120/1] via 10.0.0.2, 00:00:15, Serial 2/0

Similarly the output is shown for router 1 and router 2.



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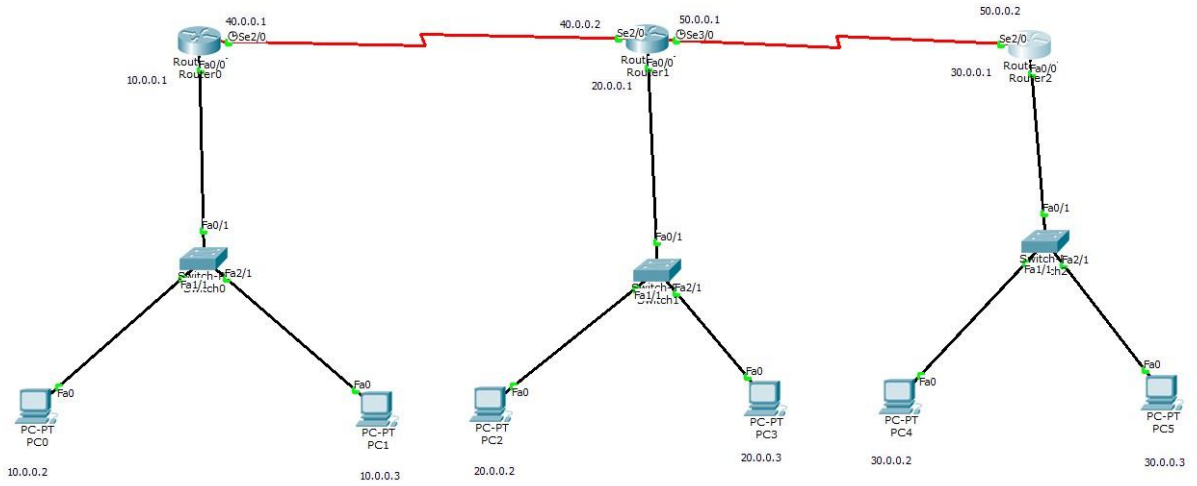
Ping Output

(from PC5 to PC0)
PC5 → Command Prompt
PC> Ping 10.0.0.2
pinging 10.0.0.2 with 32 bytes of data.
Reply from 10.0.0.2: bytes=32 time 2ms TTL=125
Reply from 10.0.0.2: bytes=32 time 7ms TTL=125
Reply from 10.0.0.2: bytes=32 time 11ms TTL=125
Reply from 10.0.0.2: bytes=32 time 11ms TTL=125

Ping statistics 10.0.0.2
Packets sent=4, Received=4, Lost=0 (0% Loss)

Screen Shots:



PC0

Physical | Config | Desktop | Custom Interface

Command Prompt

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Pinging 30.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 30.0.0.2: bytes=32 time=7ms TTL=125
Reply from 30.0.0.2: bytes=32 time=6ms TTL=125
Reply from 30.0.0.2: bytes=32 time=7ms TTL=125

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 6ms, Maximum = 7ms, Average = 6ms

PC>ping 30.0.0.2

Pinging 30.0.0.2 with 32 bytes of data:

Reply from 30.0.0.2: bytes=32 time=4ms TTL=125
Reply from 30.0.0.2: bytes=32 time=7ms TTL=125
Reply from 30.0.0.2: bytes=32 time=7ms TTL=125
Reply from 30.0.0.2: bytes=32 time=7ms TTL=125

Ping statistics for 30.0.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 7ms, Average = 6ms

PC>
```