WEEK-3

→ Connect 2 PC to router 1, 2 to router 2,
connect routers 1 & 2 with router 3.

→ set IP address of PC to 10.0.0.1 & 20.0.0.1,
30.0.0.1, 40.0.0.1.

→ set gateway 10.0.0.2, 20.0.0.2, 30.0.0.2,
40.0.0.2.

→ In router CLI,
       enable
       config terminal
       interface fast Ethernet 0/0
       ip address 10.0.0.2
       no shutdown

    → repeat for PC.2.

→ setting serial configuration,
       enable
       config t
       interface serial 2/0
       ip address 50.0.0.1
       no shut

    → repeat for Router 2.

→ In router 3 CLI,
       enable
       config t
       interface serial 2/0
       ip address 50.0.0.3
       no shut

interface serial 8/0
ip address 60.0.0.3
no shut

→ Static routing, (In route 1 CLI)

next hop
trace from source

config t
ip route 30.0.0.0 255.0.0.0 50.0.0.3
ip route 40.0.0.0 255.0.0.0 50.0.0.3
ip route 60.0.0.0 255.0.0.0 50.0.0.3
show ip route

{ done after returning
"Destination host
unreachable", when
initial "show ip route"}

(In route 2 CLI)

config t
ip route 10.0.0.0 255.0.0.0 60.0.0.3
ip route 20.0.0.0 255.0.0.0 60.0.0.3
ip route 50.0.0.0 255.0.0.0 60.0.0.3

(In route 3 CLI)

config t
ip route 10.0.0.0 255.0.0.0 50.0.0.1
ip route 20.0.0.0 255.0.0.0 50.0.0.1
ip route 30.0.0.0 255.0.0.0 60.0.0.1
ip route 40.0.0.0 255.0.0.0 60.0.0.1

→ In command prompt of the PCs, we
ping 20.0.0.1   (from 10.0.0.1)

{ping at
to get "t
lost"} ⟹ ping 30.0.0.1   (from 10.0.0.1)

record the output.

2

OUTPUT-
(cont time)

(ii) >ping 30.0.0.1

pinging 30.0.0.1 with 32 bytes of data!
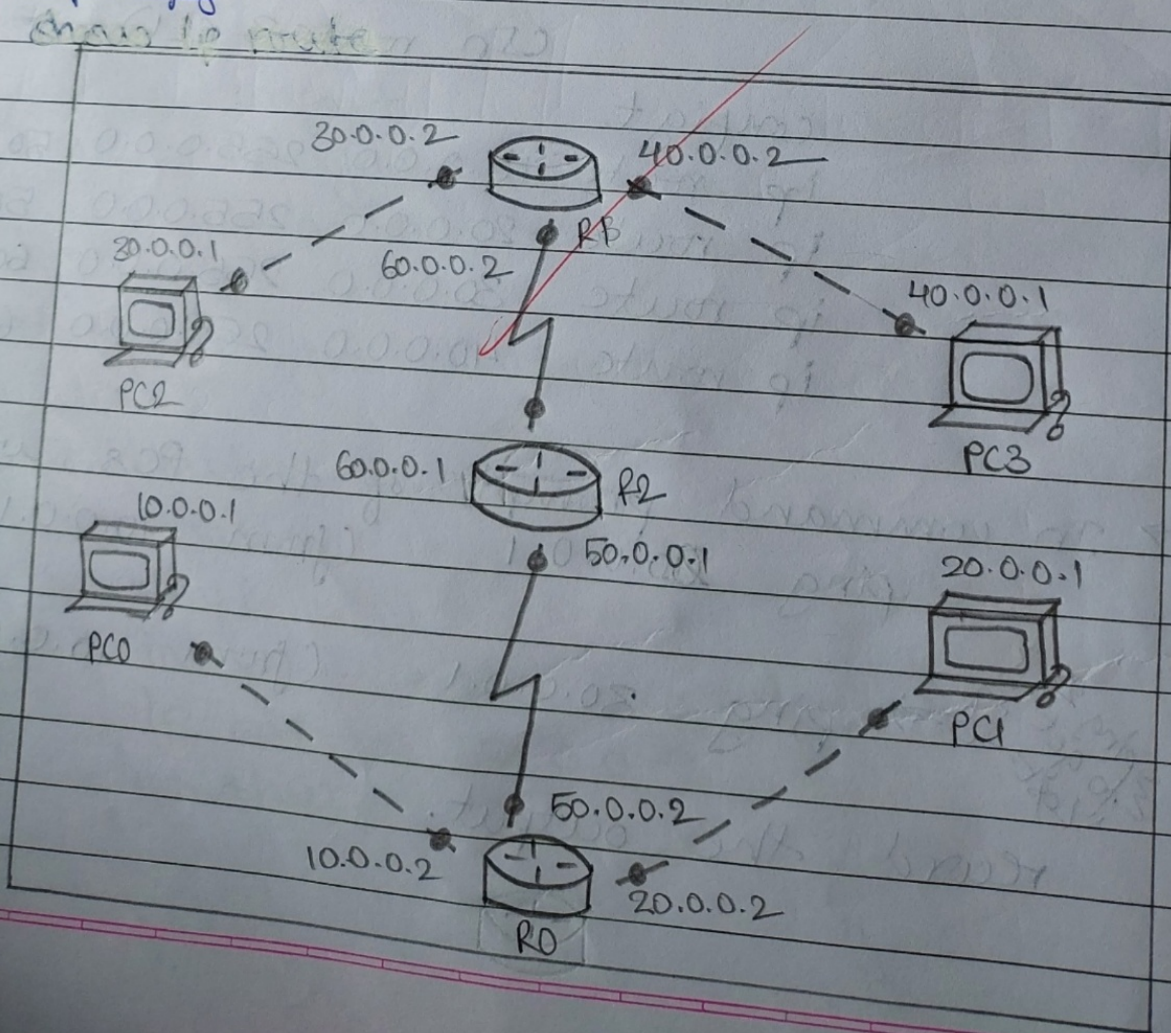
Reply from 30.0.0.1: bytes=32 time=2ms TTL=125
Reply from 30.0.0.1: bytes=32 time=5ms TTL=125
Reply from 30.0.0.1: bytes=32 time=11ms TTL=126
Reply from 30.0.0.1: bytes=32 time=13ms TTL=125

Ping statistics for 30.0.0.1:
 Packets: sent=4, recieved=4, Lost=0 (0% Loss),
approximate round trip times in milli-seconds:
 mininuum=2ms, maximum=13ms, average=7ms

- Topology-

— OUTPUT —

(i) (Initial)

> ping 40.0.0.1

pinging 40.0.0.1 with 32 bytes of data:

Reply from 20.0.0.2: destination host unreachable.
Reply from 20.0.0.2: destination host unreachable
Reply from 20.0.0.2: destination host unreachable
Reply from 20.0.0.2: destination host unreachable.

Pinging statistics for 40.0.0.1:
    Packets: sent = 4, recieved = 0, lost = 4 (100% loss)

26/6/23