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EXPERIMENT - 5

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AIM: Configuring RIP routing protocol in routers.

PROCEDURE:

* Connect 2 end devices to 2 switches each and configure the ip addresses.
* Then connect the 2 switches to 2 routers and connect the routers via another router.
* Configure ip address of router - switch interface.
* Configure the ip address of router to router interface using point-to-point protocol.

```
enable
config terminal
interface Se 2/0
ip address 20.0.0.2  255.0.0.0
encapsulation ppp
clock rate 64000
no shut down
```

If the above is done alone for router 1, then need of setting clock rate at router 2 interface.

* Then we have to configure default router to each router.

```
ip route 0.0.0.0  0.0.0.0  20.0.0.2
```

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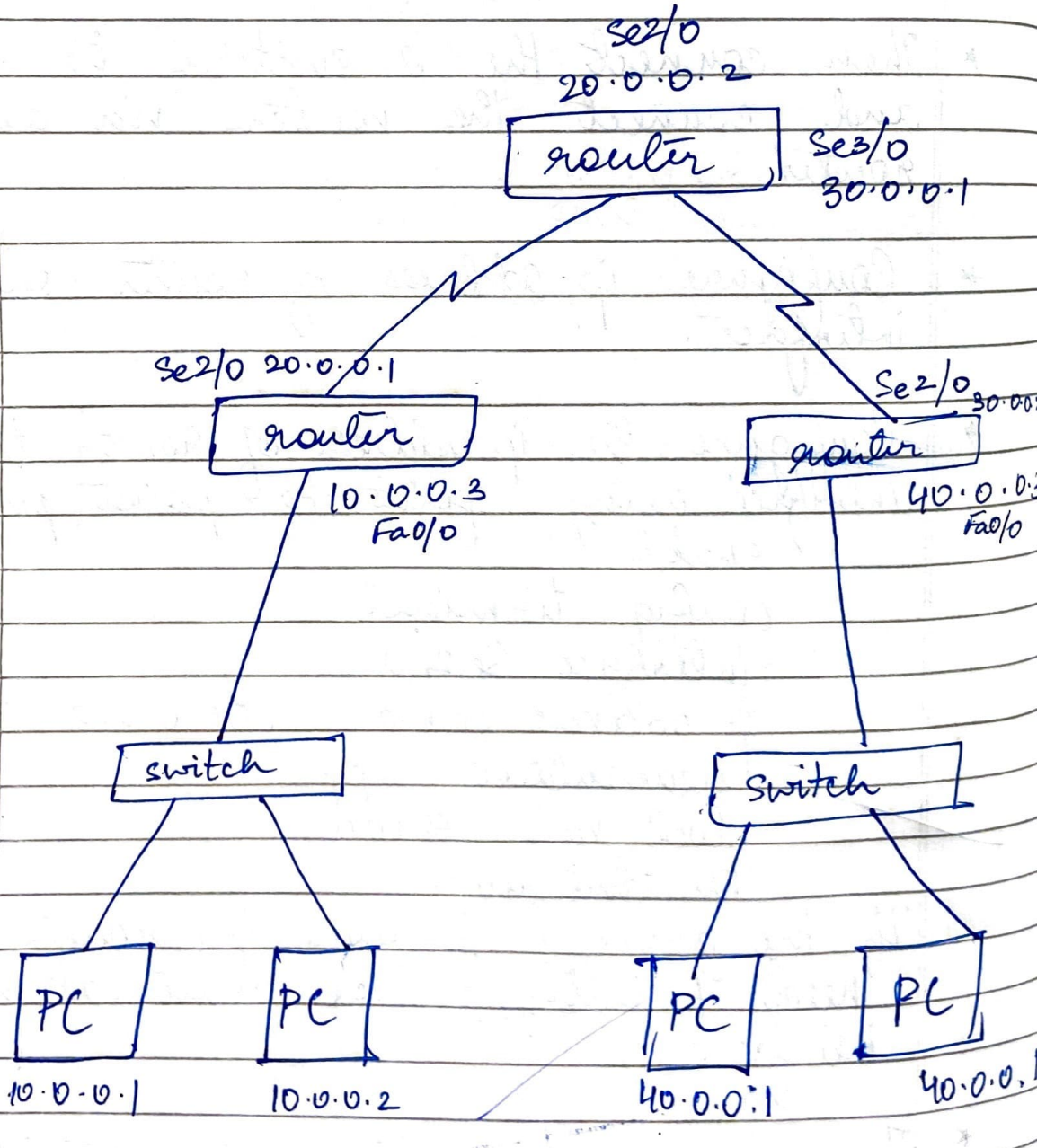
* Configure the rip protocol for each router using the following commands
In config. mode, router rip
network 10.0.0.0
network 20.0.0.0

TOPOLOGY :



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OBSERVATION :

* We use PPP while configuring ip address of interface of 2 routers. PPP is point-to-point protocol of the data link layer that is used to transmit multi-protocol data between two directly connected devices. Encapsulation PPP ⇒ This command encapsulates the datagram before it is transmitted and specifies the physical layer to transmit to.

* RIP (router information protocol) is a distance vector protocol that uses hop count as its primary metric. It prevents routing loops by implementing a limit on the number of hops allowed in a path from source to destination.

RESULT :

We get successful after configuring routes to the routers and setting gateway to end devices.

Ping 40.0.0.2

Pinging 40.0.0.2 with 32 bytes of data

Request timed out

Reply from 40.0.0.2 : bytes = 32, time = 12ms TTL = 125

Reply from 40.0.0.2 = bytes = 32, time = 12ms, TTL = 125

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EXPERIMENT 2

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Reply from 40.0.0.2 : bytes = 32 time = 12ms
TTL = 125

Ping statistics for 40.0.0.2 :
Packages : sent = 4, recieved = 3, lost = 1
(25% loss)

Approximate round trip times in ms :
min = 2ms, max = 12ms, avg = 8ms

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