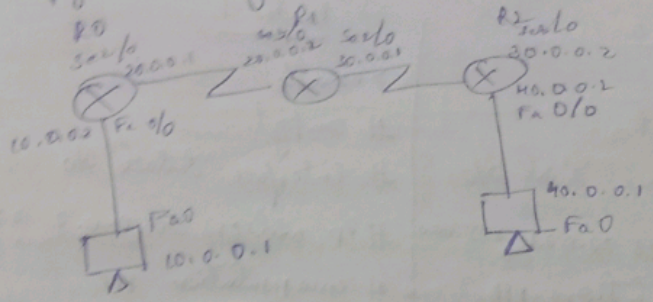
Aim: Configure Routing Information Protocol



Procedure

- set up network using 3 router and 2 end devices by connecting the router to router via serial DCE cable and router to end devices using copper cross-cable.
→ configure ip address of end devices
→ configure ip address of fastethernet interface of router

Command (Router)

>enable
config t
interface FastEthernet 0/0
ip address 10.0.0.2 255.0.0.0
no shutdown
exit

Router 2

>enable
config t
interface FastEthernet 0/0
ip address 40.0.0.2 255.0.0.0
no shutdown
exit

→ Config ip address of router

Router 0

```
enable
# config t
# Interface serial 2/0
# ip address 20.0.0.1 255.0.0.0
# encapsulation ppp
# clock rate 64000
# no shutdown
# exit
```

Router 1

```
> enable
# config t
# Interface serial 3/0
# ip address 20.0.0.2 255.0.0.0
# encapsulation ppp
# no shutdown
# exit
# Interface serial 2/0
# ip address 30.0.0.1 255.0.0.0
# encapsulation ppp
# clock rate 64000
# no shutdown
# exit
```

Router 2

```
> enable
# config t
# Interface serial 3/0
# ip address 30.0.0.2 255.0.0.0
# no shutdown
# exit
```

→ connect the networks

Router 0

```
> enable
# Config t
# router rip
network 10.0.0.0
network 20.0.0.0
exit
```

Router 1

```
> enable
# Config t
# router rip
# network 20.0.0.0
# network 30.0.0.0
# exit
```

Router 2

```
> enable
# config t
# router rip
# network 30.0.0.0
# network 10.0.0.0
# exit
```

Observation: RIP is a dynamic routing protocol that uses hop count as a routing matrix to find the best path between the source and destination.

PC > ping 10.0.0.1

pinging 10.0.0.1 with 32 bytes of data

Reply from 10.0.0.1 bytes=32 time=23ms TTL=125
Reply from 10.0.0.1 bytes=32 Time=11ms TTL=125
Reply from 10.0.0.1 bytes=32 Time=2ms TTL=125
Reply from 10.0.0.1 bytes=32 Time=15ms TTL=125

ping statistics -

packets: Sent=4, Received=4, Lost=0 (0% loss)

Approx round trip time

min=2ms max=23ms Avg=14ms