

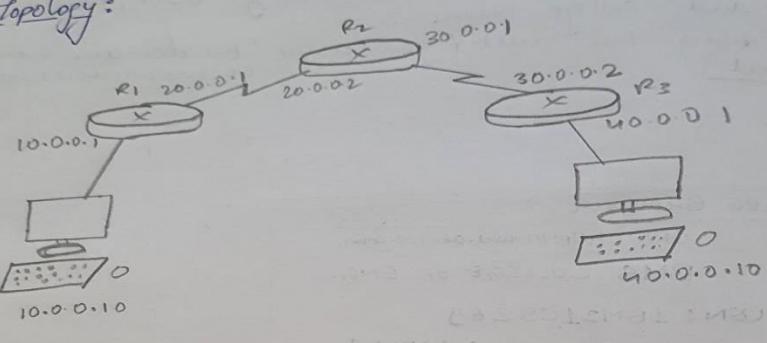
CN LAB 6

AIM: Configure RIP routing Protocol in Routers.

OBSERVATION:

Aim: To configure RIP routing Protocol in routers.

Topology:



ROUTER TO ROUTER SUB
ROUTER TO HOST SUB

Procedure

- 1) Create a topology with 2 PC's and 3 routers as shown.
- 2) Configure PC's with ip addresses and gateway.
- 3) Configure ip addresses for all interfaces and assign ip addresses, default gateway to hosts.

In Router R1

```
(Config)# interface fastethernet 0/0
(Config-if)# ip address 10.0.0.1 255.0.0.0
(Config-if)# no shutdown
(Config-if)# exit
```

```
(config) # interface Serial 1/0  
(config-if) # ip address 20.0.0.1 255.0.0.0  
(config-if) # encapsulation PPP  
(config-if) # clock rate 64000  
(config-if) # no shutdown  
(config-if) # exit.
```

In Router R2

```
(config) # interface Serial 1/0  
(config-if) # ip address 20.0.0.2 255.0.0.0  
(config-if) # encapsulation PPP  
(config-if) # no shutdown  
(config-if) # exit.
```

```
(config) # interface Serial 1/1  
(config-if) # ip address 30.0.0.1 255.0.0.0  
(config-if) # encapsulation PPP  
(config-if) # clock rate 64000  
(config-if) # no shutdown  
(config-if) # exit.
```

In Router R3

```
(config) # interface Serial 1/0  
(config-if) # ip address 30.0.0.2 255.0.0.0  
(config-if) # encapsulation PPP  
(config-if) # no shutdown  
(config-if) # exit
```

```
(config) # interface fastethernet 2/0  
(config-if) # ip address 40.0.0.1 255.0.0.0  
(config-if) # no shutdown  
(config-if) # exit
```

9) Configure RIP to all routers by using command

In Router R1

```
(config)# router rip  
(config-router)# network 10.0.0.0  
(config-router)# network 20.0.0.0  
(config-router)# exit
```

In Router R2

```
(config)# router rip  
(config-router)# network 20.0.0.0  
(config-router)# network 30.0.0.0  
(config-router)# exit
```

In Router R3

```
(config)# router rip  
(config-router)# network 30.0.0.0  
(config-router)# network 40.0.0.0  
(config-router)# exit
```

Observation / Result

→ Show ip route

C 10.0.0.0/8 is directly connected, FastEthernet 2/0

C 20.0.0.0/8 is directly connected, Serial 1/0

R 40.0.0.0/8 [120/2] via 20.0.0.2, 00:00:02, Serial 1/0

R 30.0.0.0/8 [120/1] via 20.0.0.2, 00:00:02, Serial 1/0

Result

→ Ping from 10.0.0.10 to 40.0.0.10

Ping 40.0.0.10

64 bytes from 40.0.0.10 Seq=0 TTL=61 time = 72.55ms

64 bytes from 40.0.0.10 Seq=1 TTL=61 time = 98.357 ms

64 bytes from 40.0.0.10 Seq=2 TTL=61 time = 58.286 ms

64 bytes from 40.0.0.10 Seq=3 TTL=61 time = 63.856 ms

64 bytes from 40.0.0.10 Seq=4 TTL=61 time = 120.291 ms

64 bytes from 40.0.0.10 Seq=5 TTL=61 time = 61.582 ms

64 bytes from 40.0.0.10 Seq=6 TTL=61 time = 100.164 ms

64 bytes from 40.0.0.10 Seq=7 TTL=61 time = 100.164 ms

SCREENSHOTS

