USN-1BM18CS062 :

CN - Lab ⑥

RIP → Routing Information Protocol.

→ It is a dynamic routing protocol.

→ uses hop count to select best path between source & destination.

→ works on application layer of OSI model.

Router 0:

```
interface serial 2/0
ip address 20.0.0.1 255.0.0.0
encapsulation ppp.
clock rate 64000
no shut
exit.
router rip.
network 10.0.0.0.
network 20.0.0.0.
```

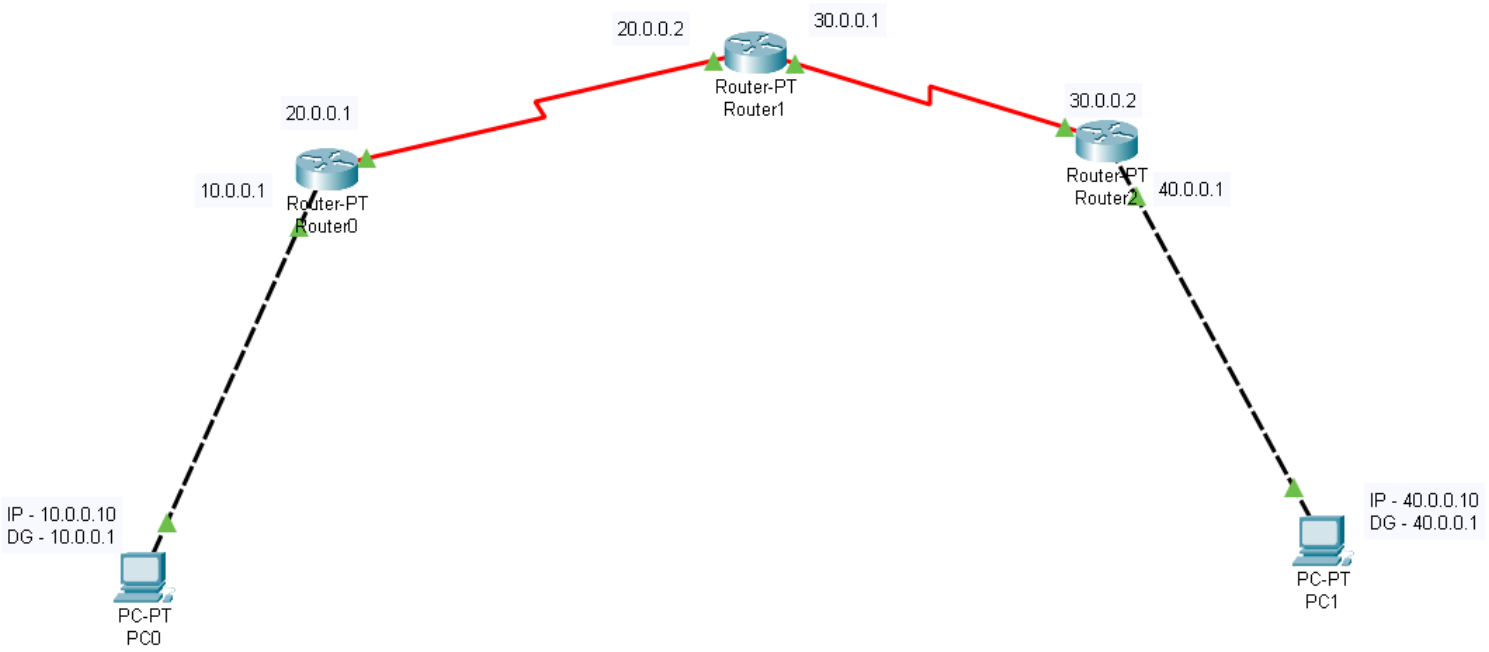
Router 1:

```
interface serial 2/0
ip address 20.0.0.2 255.0.0.0
encapsulation ppp.
no shut.
exit.
interface serial 3/0.
```

ip address 30.0.0.2 255.0.0.0
encapsulation ppp.
clock rate 64000.
no shut
exit.
router rip.
network 20.0.0.0
network 30.0.0.0

Router 2:

interface serial 2/0
ip address 30.0.0.1 255.0.0.0.
encapsulation ppp.
no shut.
exit.
router rip.
network 30.0.0.0
network 40.0.0.0.




```
C    10.0.0.0/8 is directly connected, FastEthernet0/0
     20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       20.0.0.0/8 is directly connected, Serial2/0
C       20.0.0.2/32 is directly connected, Serial2/0
R    30.0.0.0/8 [120/1] via 20.0.0.2, 00:00:17, Serial2/0
R    40.0.0.0/8 [120/2] via 20.0.0.2, 00:00:17, Serial2/0
```

ROUTER 0

```
R    10.0.0.0/8 [120/1] via 20.0.0.1, 00:00:22, Serial2/0
     20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       20.0.0.0/8 is directly connected, Serial2/0
C       20.0.0.1/32 is directly connected, Serial2/0
     30.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
C       30.0.0.0/8 is directly connected, Serial3/0
C       30.0.0.1/32 is directly connected, Serial3/0
C       30.0.0.2/32 is directly connected, Serial3/0
R    40.0.0.0/8 [120/1] via 30.0.0.1, 00:00:13, Serial3/0
```

ROUTER 1

```
R    10.0.0.0/8 [120/2] via 30.0.0.2, 00:00:23, Serial2/0
R    20.0.0.0/8 [120/1] via 30.0.0.2, 00:00:23, Serial2/0
     30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       30.0.0.0/8 is directly connected, Serial2/0
C       30.0.0.2/32 is directly connected, Serial2/0
C    40.0.0.0/8 is directly connected, FastEthernet0/0
```

ROUTER 2

```
Packet Tracer PC Command Line 1.0
C:\>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Request timed out.
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 2ms, Average = 2ms

C:\>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

Reply from 40.0.0.10: bytes=32 time=3ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125

Ping statistics for 40.0.0.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 3ms, Average = 2ms
```