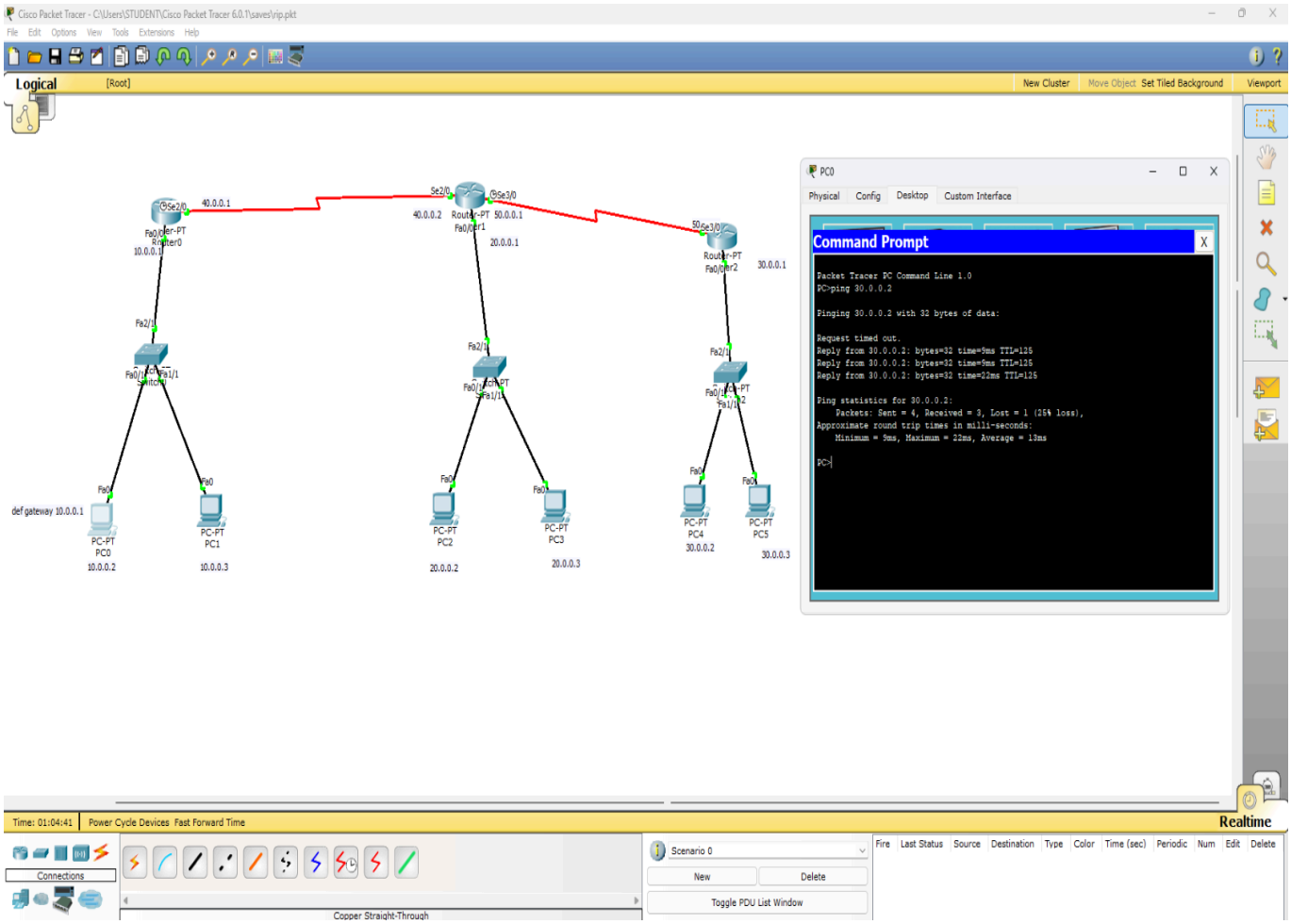
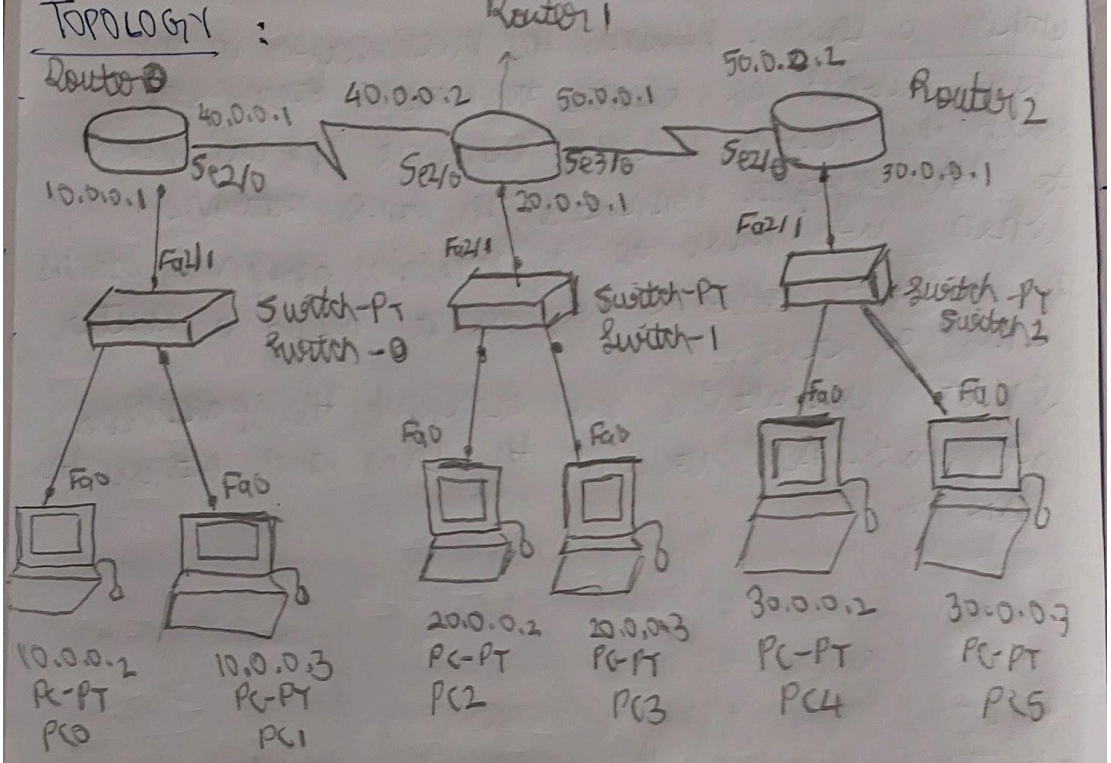

Cisco Packet Tracer - C:\Users\STUDENT\Cisco Packet Tracer 6.0.1\saves\rip.pkt
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
Packet Tracer PC Command Line 1.0
PC>ping 30.0.0.2
Pinging 30.0.0.2 with 32 bytes of data:
Request timed out.
Reply from 30.0.0.2: bytes=32 time=9ms TTL=125
Reply from 30.0.0.2: bytes=32 time=9ms TTL=125
Reply from 30.0.0.2: bytes=32 time=22ms TTL=125
Ping statistics for 30.0.0.2:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 9ms, Maximum = 22ms, Average = 13ms
PC>
40.0.0.1
40.0.0.2
50.0.0.1
20.0.0.1
30.0.0.1
10.0.0.1
def gateway 10.0.0.1
PC-PT PC0
10.0.0.2
PC-PT PC1
10.0.0.3
PC-PT PC2
20.0.0.2
PC-PT PC3
20.0.0.3
PC-PT PC4
30.0.0.2
PC-PT PC5
30.0.0.3
Time: 01:04:41
Power Cycle Devices
Fast Forward Time
Realtime
Connections
Copper Straight-Through
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time (sec)
Periodic
Num
Edit
Delete

LAB-6 EXPERIMENT-5

Configure Routing Information Protocol (RIP)

AIM: To connect three different networks using Routing Information protocol in routers

TOPOLOGY :



PC0: Connected to switch 0's interface Fa0/0 using a copper straight

IP address: 10.0.0.2 Subnet mask: 255.0.0.0
Default gateway: 10.0.0.1

PC1:

IP address: 10.0.0.3
Default gateway: 10.0.0.1
Subnet mask: 255.0.0.0

PC2:

IP address: 20.0.0.2
Default gateway: 20.0.0.1
Subnet mask: 255.0.0.0

PC3:

IP address: 20.0.0.3
Default gateway: 20.0.0.1
Subnet mask: 255.0.0.0

PC4:
IP address : 30.0.0.2
Default gateway : 30.0.0.1
Subnet mask : 255.0.0.0

PC5:
IP address : 30.0.0.3
Default gateway : 30.0.0.1
Subnet mask : 255.0.0.0

~~Router 0~~ :

Router 0 is connected to router 1 through serial 2/0 and Serial DCE cable

Router 1 is connected to router 2 through serial 3/0 and serial 2/0 respectively.

PROCEDURE :

1) Open Cisco packet tracer and drag the following components.

Router : Place 3 routers in the middle

Switch : Place 3 switches and connect them to the routers with Fa 2/1 interface

PC : Place 6 PC's, two of them connected to each of the 3 switches via Fa 0/0 interface

Configure all the 3 routers

- Router 0 :

Router > enable
Router # > config terminal
Router (config) # interface serial 2/0
Router (config) # ip address 30.0.0.1 255.0.0.0
Router (config) # no shut

- Router 1 :

Router (config) # interface serial 2/0
Router (config) # ip address 40.0.0.1 255.0.0.0

Router (config)# interface Fa0/0
Router (config) # ip address 20.0.0.1 255.0.0.0
Router (config) # interface Se3/0
Router (config)# ip address 50.0.0.1 255.0.0.0
Router (config) # no shut

Router3

Router (config) # interface Fa0/0
Router (config)# ip address 30.0.0.1 255.0.0.0
Router (config)# interface Se2/0
Router (config)# ip address 50.0.0.2 255.0.0.0

→ Configure the RIP for all routers

• Router1:

Router (config)# router rip
Router (config) # network 10.0.0.0
Router (config) # network 30.0.0.0

• Router2

Router (config) # router rip
Router (config)# network 40.0.0.0
Router (config) # network 20.0.0.0
Router (config) # network 50.0.0.0

Router 3

Router (config) # router rip
Router (config) # network 30.0.0.0
Router (config) # network 50.0.0.0

26/12/24

OBSERVATION

The routers communicate with each other and share routing table of
The TTL field in a packet decrements by 1 at each router hop to prevent infinite loops. If the TTL reaches 0, the router discards the packet and sends an ICMP ("Time Exceeded") message back to the sender