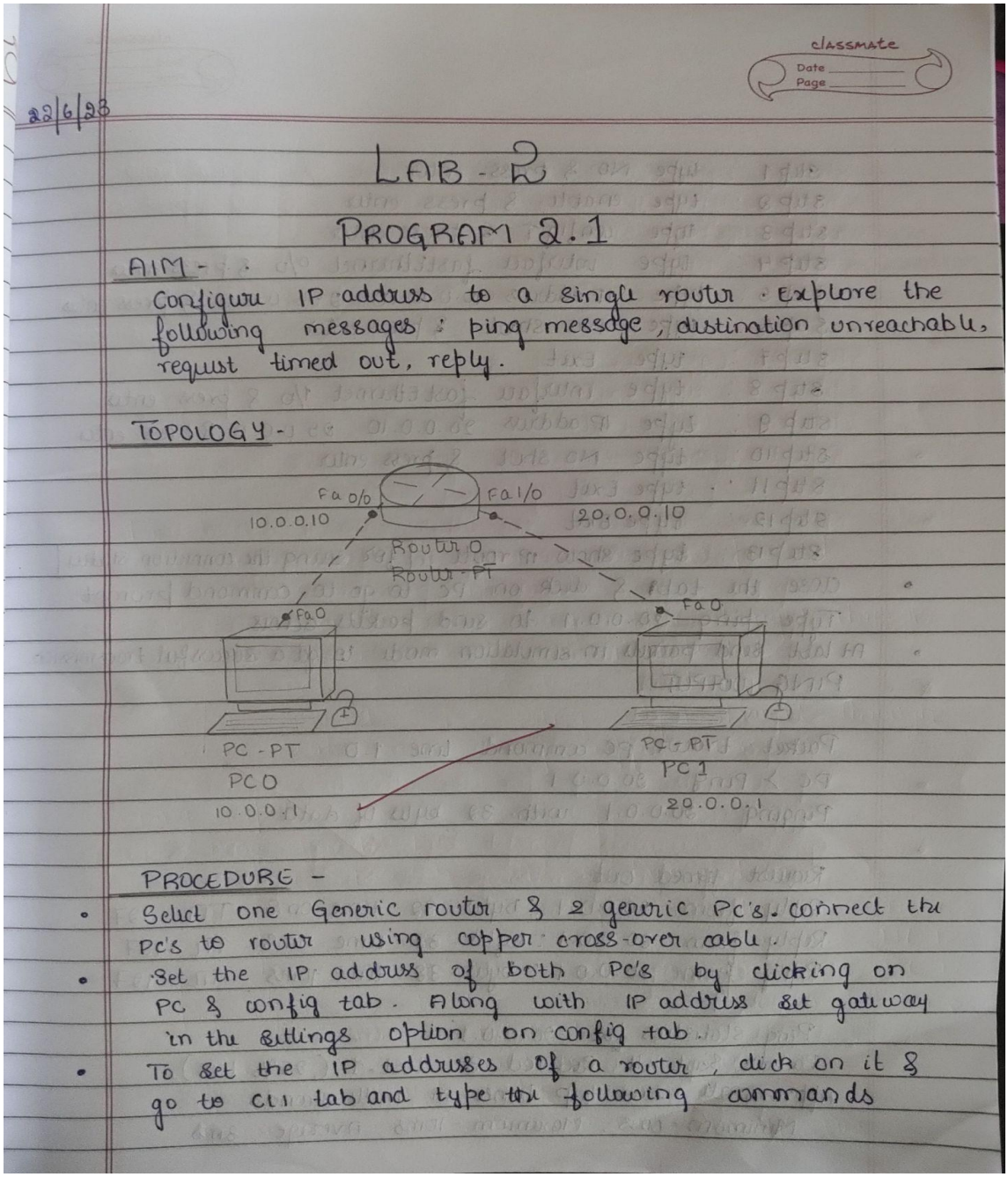
# WEEK 2

Configure IP address to routers (one and three) in packet tracer. Explore the following messages: ping responses, destination unreachable, request timed out, reply.

OBSERVATION:



step 1 : type No & press enter.
step 2 : type enable & press enter
step 3 : type configT & press enter
step 4 : type interface fastEthernet 0/0 & press enter
step 5 : type IP address 10.0.0.10 255.0.0.0 & press enter
step 6 : type No shut & press enter
step 7 : type Exit
step 8 : type interface fast Ethernet 1/0 & press enter
step 9 : type IP address 20.0.0.10 25.0.0.0 & press enter
step 10 : type No shut & press enter
step 11 : type Exit.
step 12 : type Exit
step 13 : type show IP route [for seeing the connection status]

- Close the tab & click on PC to go to command prompt.
  Type ping 20.0.0.1 to send packets across.
- At last send packets in simulation mode to get a successful transmission

PING OUTPUT!

Packet tracer PC command line 1.0
PC > Ping 20.0.0.1
Pinging 20.0.0.1 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.1 : bytes = 32 time = 0ms TTL = 127
Reply from 20.0.0.1 : bytes = 32 time = 0ms TTL = 127
Reply from 20.0.0.1 : byte = 32 time = 10ms TTL = 127

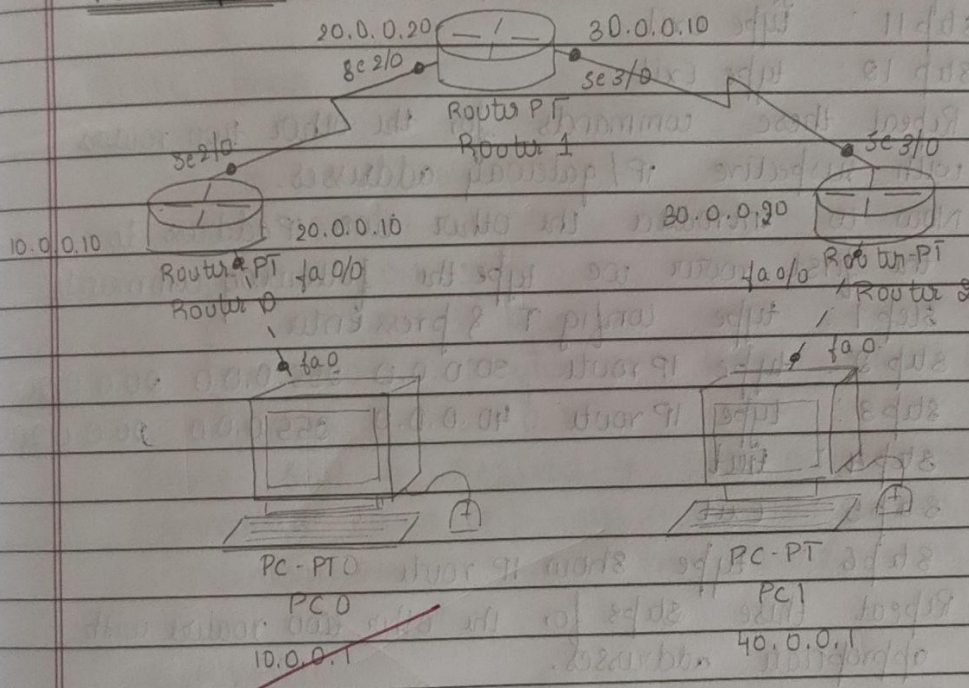
Ping statistics for 20.0.0.1:
Packets : Sent = 4, Recived = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 10ms, Average = 3ms

# PROGRAM 2.2

**AIM -**

Configure IP address to three routers in packet tracer. Explore the following messages: ping response, destination unreachable, request timed out, reply.

**TOPOLOGY -**




**PROCEDURE -**

- Connect 2 PC's & 3 routers using copper cross over cable for PC to router and Serial DCE cable to connect the routers to routers.
- Set the IP address of both PC's and gateway numbers.
- Now for setting IP address & gateway number to routers select one router and perform the following commands

Step 1: type No & press enter
Step 2: type Enable & press enter
Step 3: type config T & press enter

step4: type Interface fast Ethernet 0/0 & press Enter
step5: type IP address 10.0.0.10 255.0.0.0 & press enter
step6: type No shut & press enter
step 7: type Exit
step 8: type interface se 2/0 & press enter
step 9: type IP address 20.0.0.10 255.0.0.0 & press enter
step 10: type No shut & press enter
step 11: type Exit
step 12: type Exit

- Repeat these commands for the other two routers with respective IP/gateway addresses.
- Now to introduce the other two IP address to the first router we type the following commands
  step 1: type config T & press enter
  step 2: type IP route 30.0.0.0 255.0.0.0 20.0.0.20
  step 3: type IP route 40.0.0.0 255.0.0.0 20.0.0.20
  step 4: Exit
  step 5: Exit
  step 6: type show IP route
- Repeat these steps for the other two routers with appropriate addresses.
- Go to command prompt by clicking on PC & config tab. Type Ping message to send packets to the distination address.

PING OUTPUT:

output - 1:

Packet tracer PC command line 1.0
PC > Ping 40.0.0.1
pinging 40.0.0.1 with 32 bytes of data

Reply from 10.0.0.10 : Destination host unreachable
Reply from 10.0.0.10 : Destination host unreachable
Reply from 10.0.0.10 : Destination host unreachable
Request timed out.
Ping statistics for 10.0.0.1 :
Packets : sent = 4, Recived = 0, lost = 4 (100% loss).

output 2.
Packet Tracer PC command Line 1.0
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 = 2ms TTL = 125
Reply from 10.0.0.1 : bytes = 32 time = 8ms TTL = 125
Reply from 10.0.0.1 : bytes = 32 time = 8ms TTL = 125
Reply from 10.0.0.1 : bytes = 32 time = 8ms TTL = 125
Ping statistics for 10.0.0.1 :
Packets : Sent = 4, Recived = 4, lost = 0 (0% loss),
Approximate round trip times in milli-seconds :
Minimum = 2ms, Maximum = 8ms, Average = 3ms

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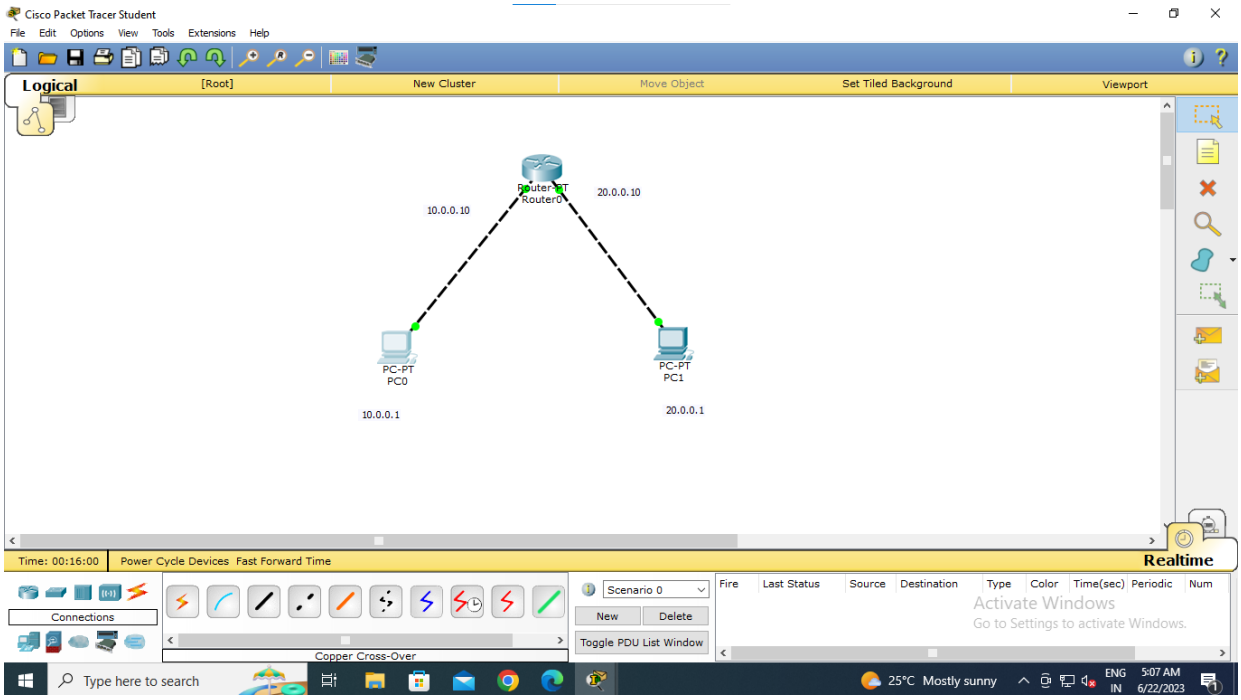
OBSERVATION -

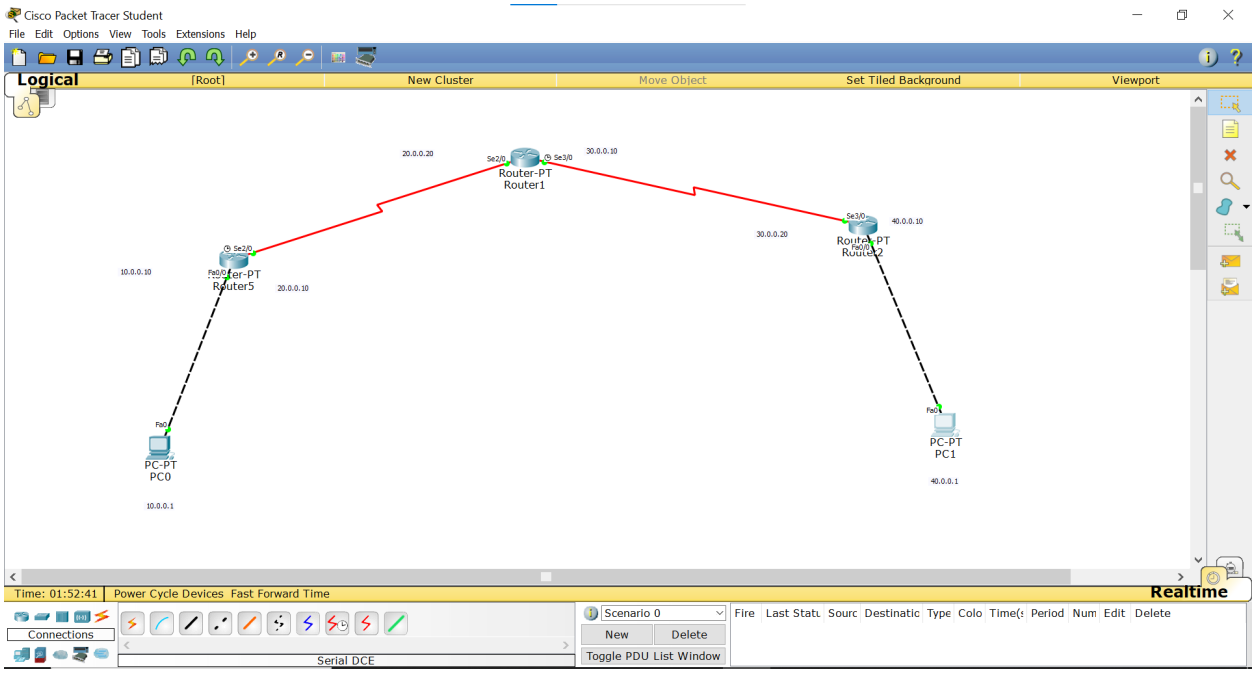
- In program 2.1 when we ping the distination address we get allocated with 32 bytes. In this first 8 bytes are used to learn about the router and their addresses. Rest bytes are used for sending packets to distination address. Then, again if we ping all bytes are used for message sending and there will be no timed-out message.
- In program 2.2 when the routers doesn't know about the remaining addresses, and we ping a message we get host unreachable message. once the routers have access / knowledge about other addresses, messages will be sent succesfully.

# TOPOLOGY:

## PROGRAM 2.1

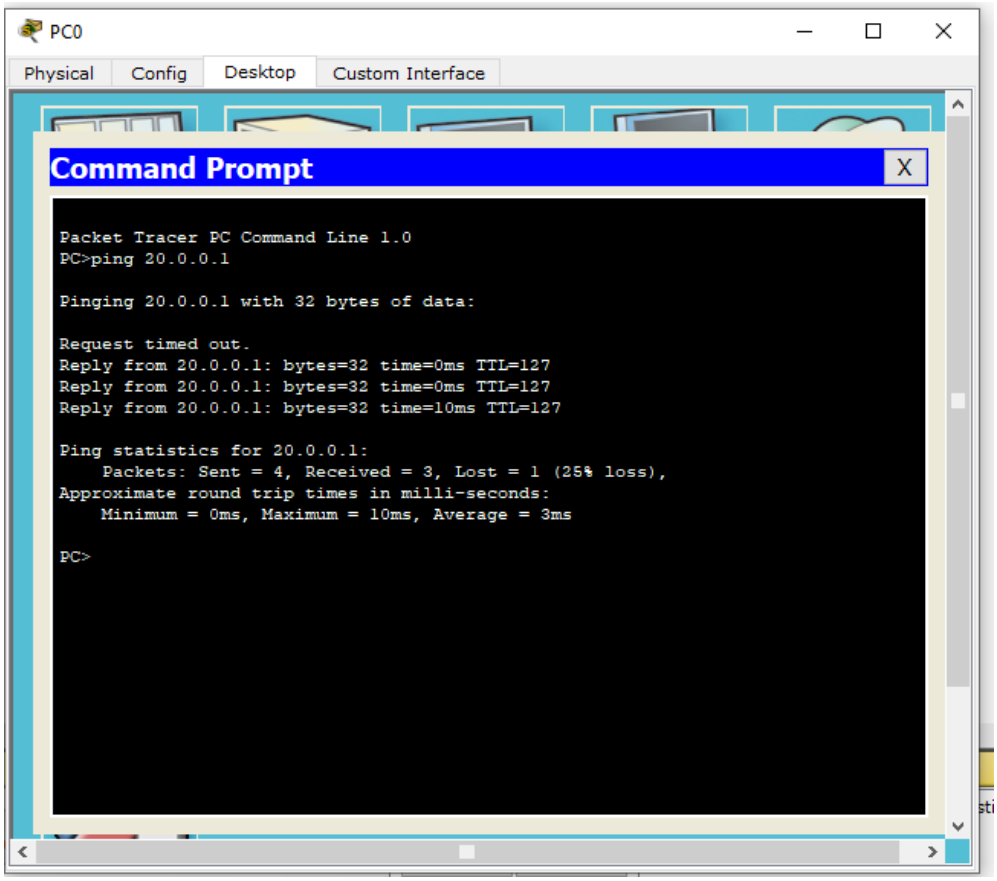


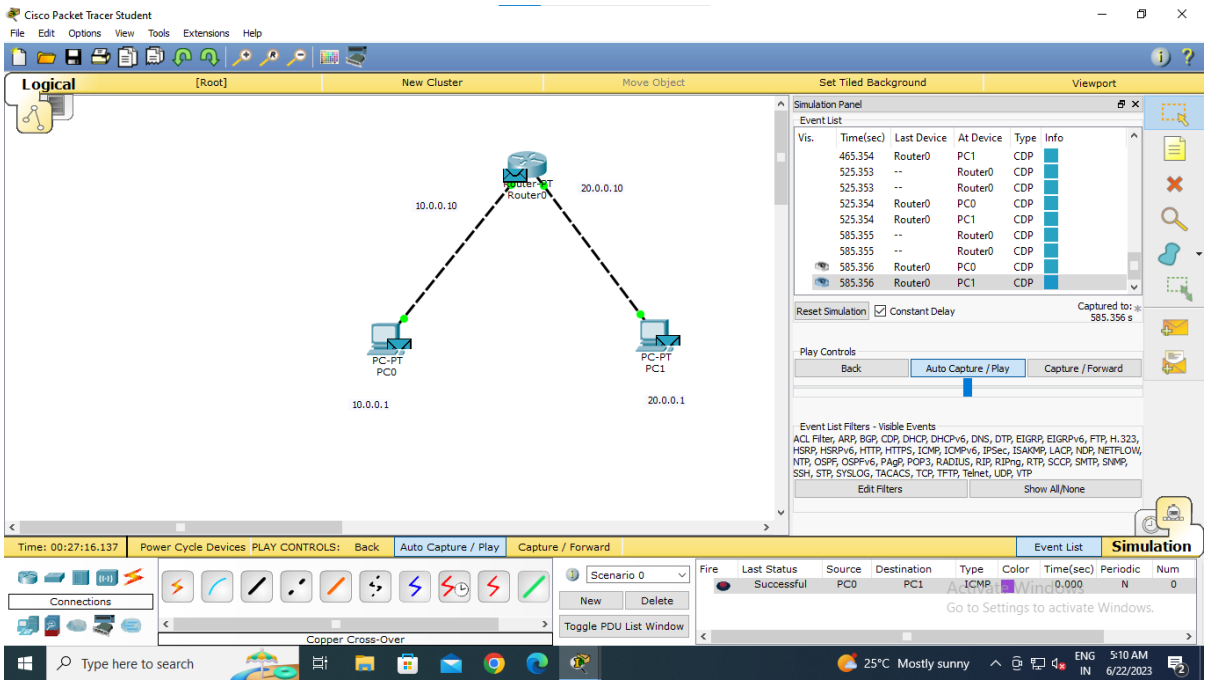

## PROGRAM 2.2



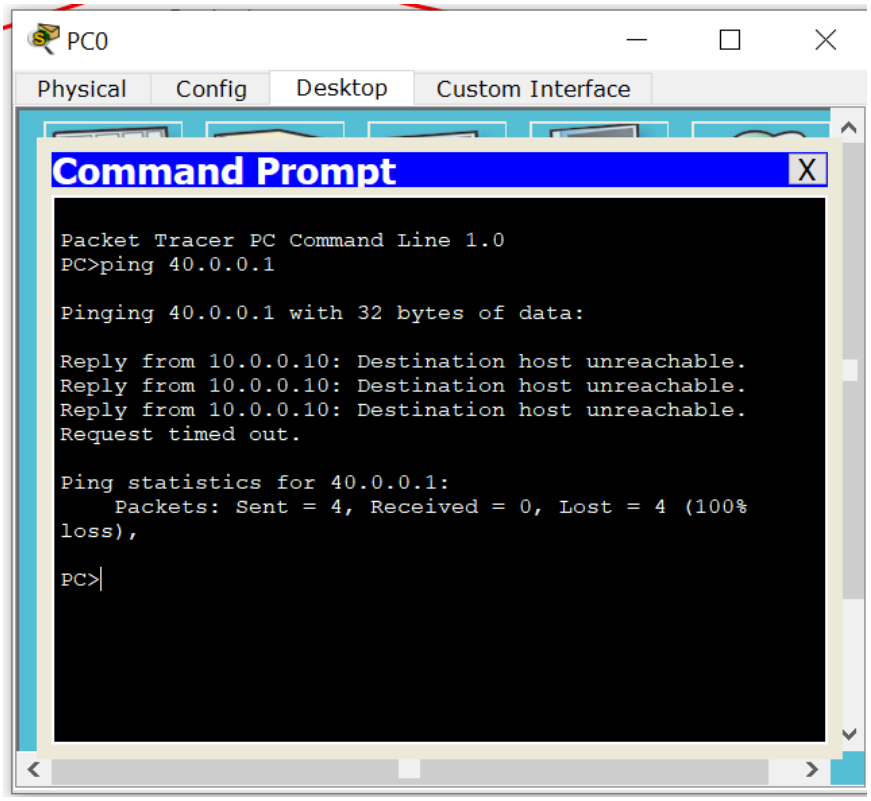
OUTPUT:

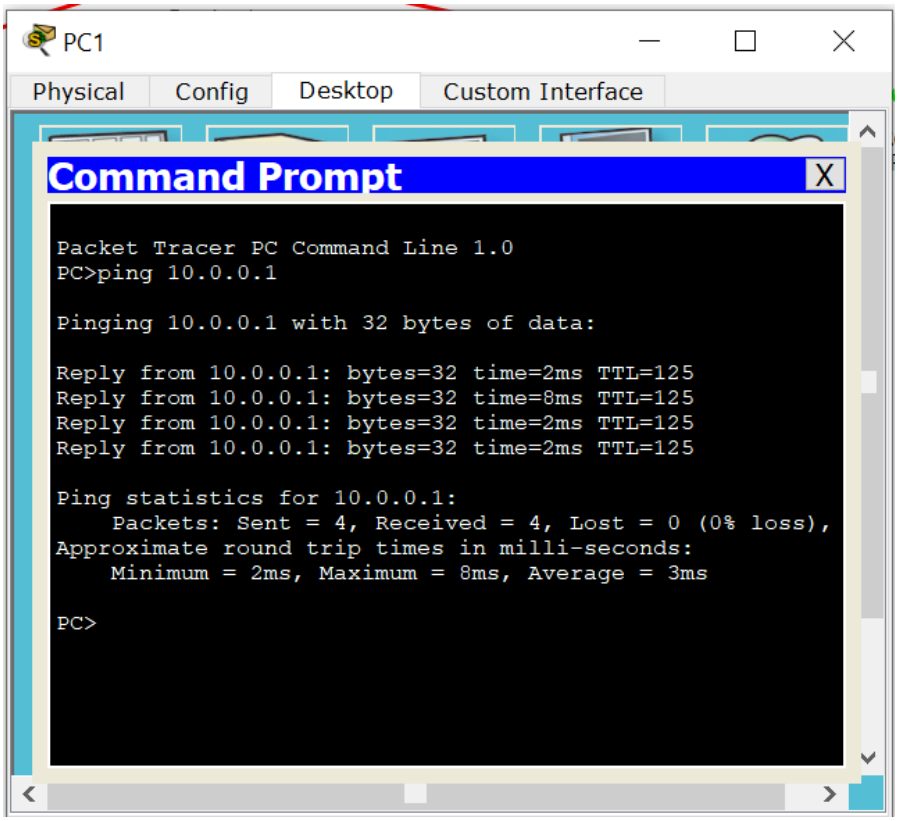
PROGRAM 2.1

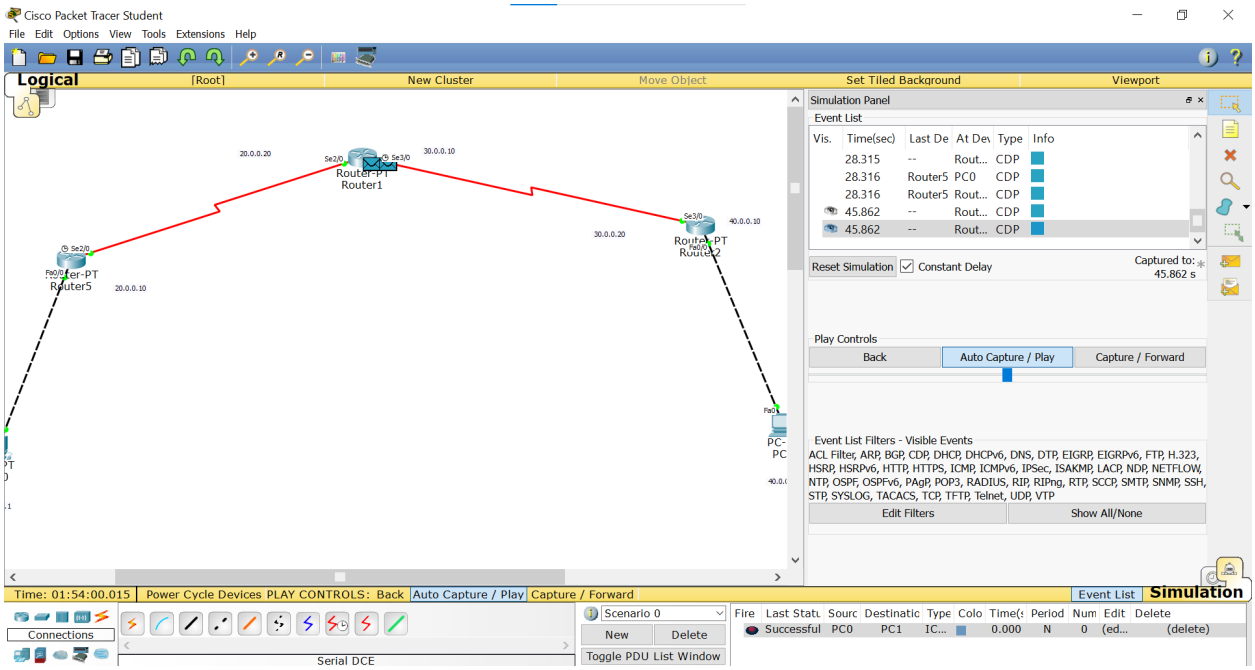


PROGRAM 2.2


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
PC>ping 40.0.0.1
Pinging 40.0.0.1 with 32 bytes of data:
Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.
Reply from 10.0.0.10: Destination host unreachable.
Request timed out.
Ping statistics for 40.0.0.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100%
loss),
PC>


PC1
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packet Tracer PC Command Line 1.0
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=2ms TTL=125
Reply from 10.0.0.1: bytes=32 time=8ms TTL=125
Reply from 10.0.0.1: bytes=32 time=2ms TTL=125
Reply from 10.0.0.1: bytes=32 time=2ms TTL=125
Ping statistics for 10.0.0.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 2ms, Maximum = 8ms, Average = 3ms
PC>


Cisco Packet Tracer Student
File Edit Options View Tools Extensions Help
Logical
[Root]
New Cluster
Move Object
Set Tiled Background
Viewport
Router-PT
Router1
Router-PT
Router2
Router-PT
Router5
PC-PC
20.0.0.20
30.0.0.10
30.0.0.20
40.0.0.10
20.0.0.10
Simulation Panel
Event List
Vis. Time(sec) Last De At Dev Type Info
28.315 -- Rout... CDP
28.316 Router5 PC0 CDP
28.316 Router5 Rout... CDP
45.862 -- Rout... CDP
45.862 -- Rout... CDP
Reset Simulation
Constant Delay
Captured to:
45.862 s
Play Controls
Back
Auto Capture / Play
Capture / Forward
Event List Filters - Visible Events
ACL Filter, ARP, BGP, CDP, DHCP, DHCPv6, DNS, DTP, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, LACP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, RADIUS, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, VTP
Edit Filters
Show All/None
Time: 01:54:00.015
Power Cycle Devices PLAY CONTROLS: Back
Auto Capture / Play
Capture / Forward
Event List
Simulation
Connections
Serial DCE
Scenario 0
New
Delete
Toggle PDU List Window
Fire Last Statu Sourc Destinatic Type Colo Time(s Period Num Edit Delete
Successful PC0 PC1 IC... 0.000 N 0 (ed... (delete)