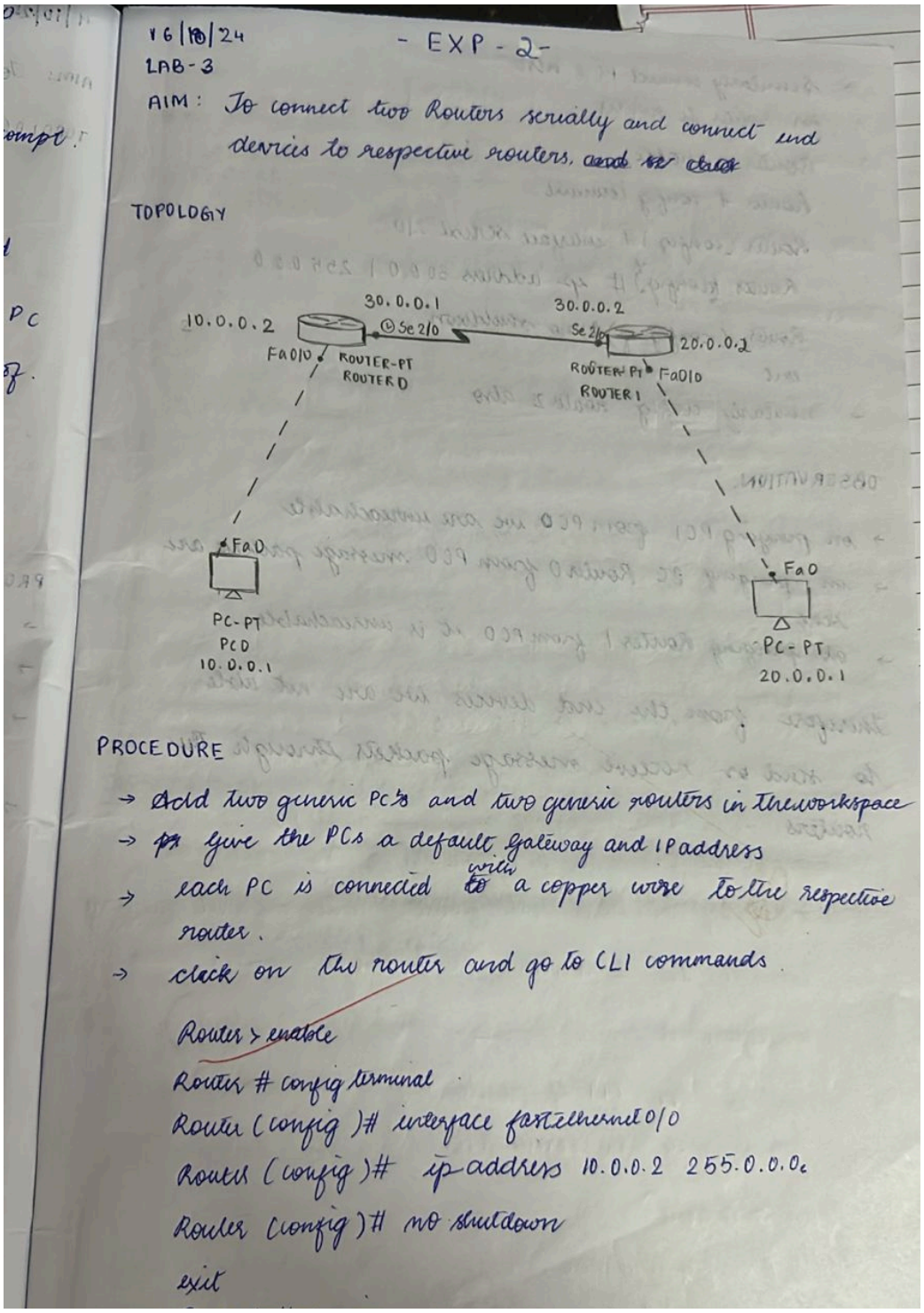
LAB-2 16/10/24 (EXP-2b AND 3a)

OBSERVATION



16/10/24

LAB-3

- EXP - 2 -

AIM: To connect two Routers serially and connect end devices to respective routers.

TOPOLOGY

PROCEDURE

→ Add two generic PC's and two generic routers in the workspace

→ Give the PCs a default gateway and IP address

→ each PC is connected with a copper wire to the respective router.

→ click on the router and go to CLI commands.

```
Router > enable
Router # config terminal
Router (config)# interface fastethernet 0/0
Router (config)# ip address 10.0.0.2 255.0.0.0
Router (config)# no shutdown
exit
```

→ Similarly connect PC 2 also

→ for router to router

- Router > enable
  Router # config terminal
  Router (config) # interface serial 2/0
  Router (config-if) # ip address 30.0.0.1 255.0.0.0
  Router (config-if) # no shutdown
  exit

→ similarly config. router 2 also.

OBSERVATION:

→ on pinging PC1 from PC0 we are unreachable

→ on pinging Router0 from PC0 message packets are sent

→ on pinging Router1 from PC0 it is unreachable.

Therefore from the end devices we are not able to send or receive message packets through the routers.

- EXP-3 -

QUESTION: Configure default route, static route to the Router.

AIM: configure static route to the Route.

PROCEDURE: → continuing the same CLI terminal as exp 2.

we go to Router 0's CLI and do the following commands

Router #>enable.

Router # config terminal.

Router (config) # ip route 20.0.0.0 255.0.0.0 30.0.0.2.

Router (config) # exit.

Router # show ip route.

Gateway of last resort not set.

S 20.0.0.0/8 [1/0] via 30.0.0.2.

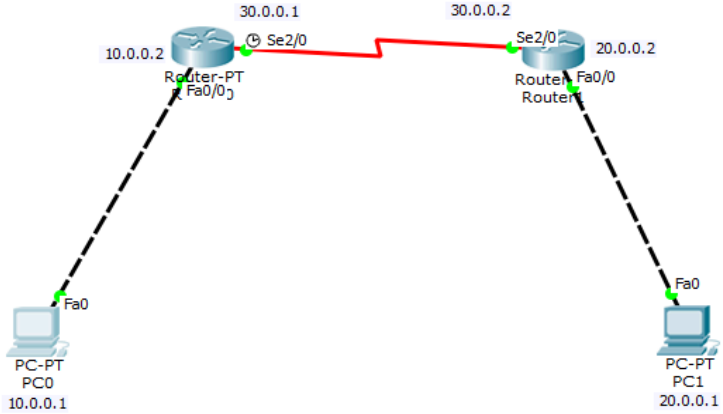
C 20.0.0.0/8 is directly connected, FastEthernet0/0

C 30.0.0.0/8 is directly connected, Serial2/0.

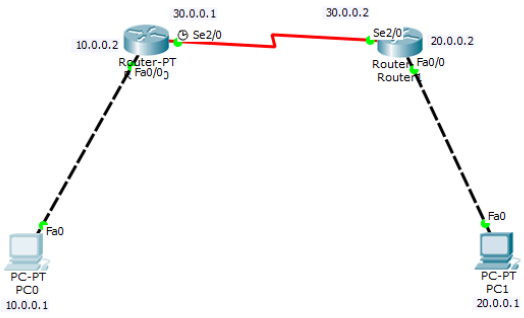
→ similarly for Router 1

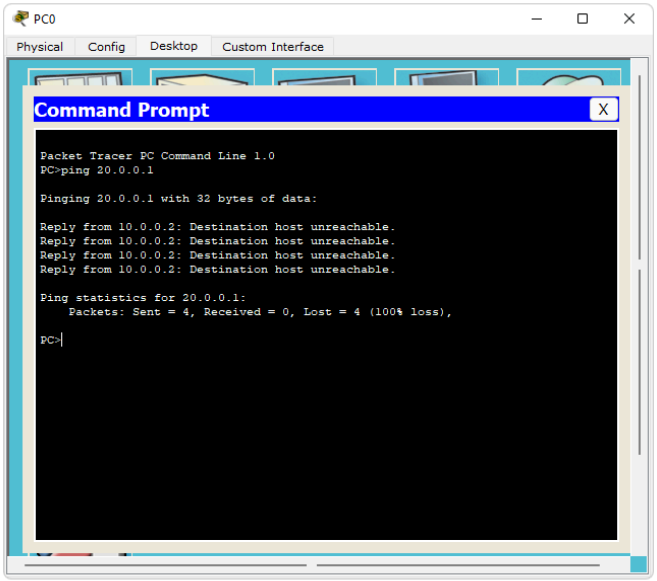
OBSERVATION: the end devices are connected and on pinging PC1 from PC0 message packets are sent from PC0 to PC1 and 3 are sent 1 is lost

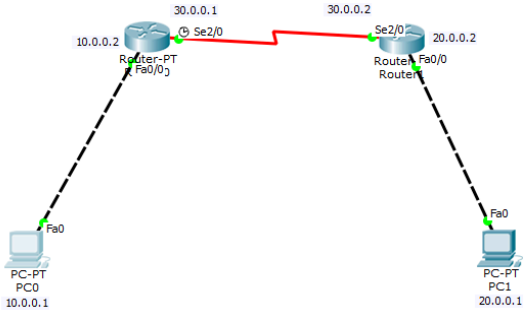
TOPOLOGY

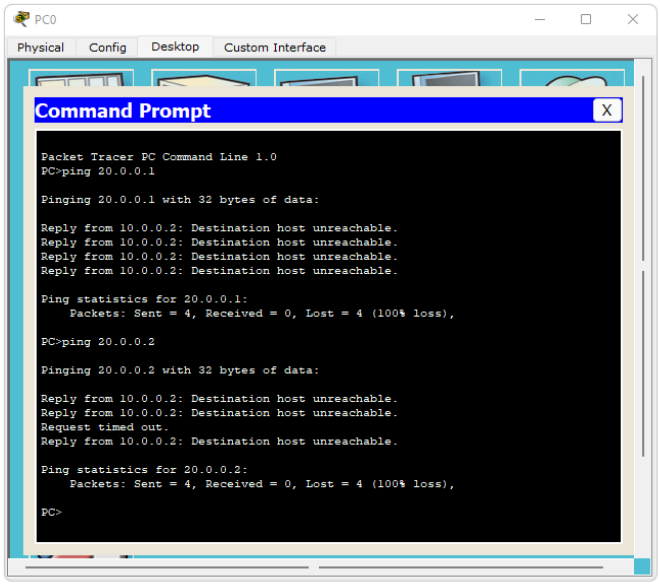


OUTPUT

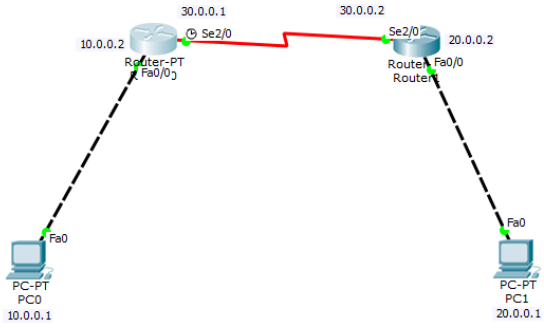


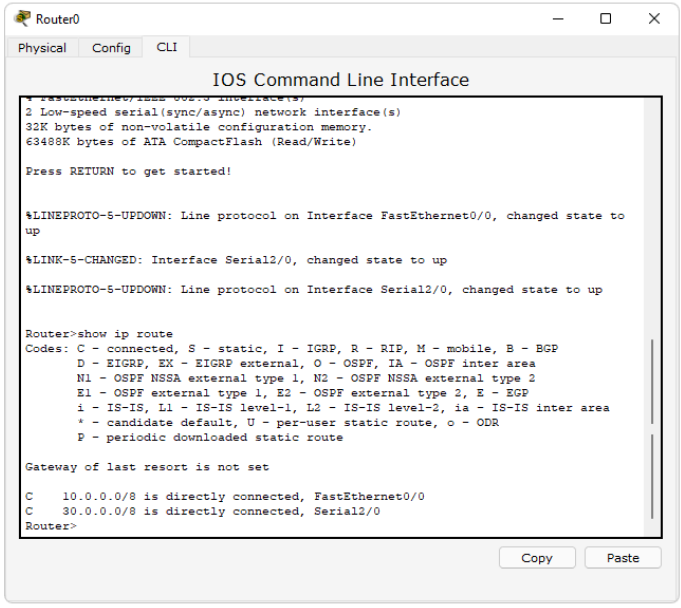


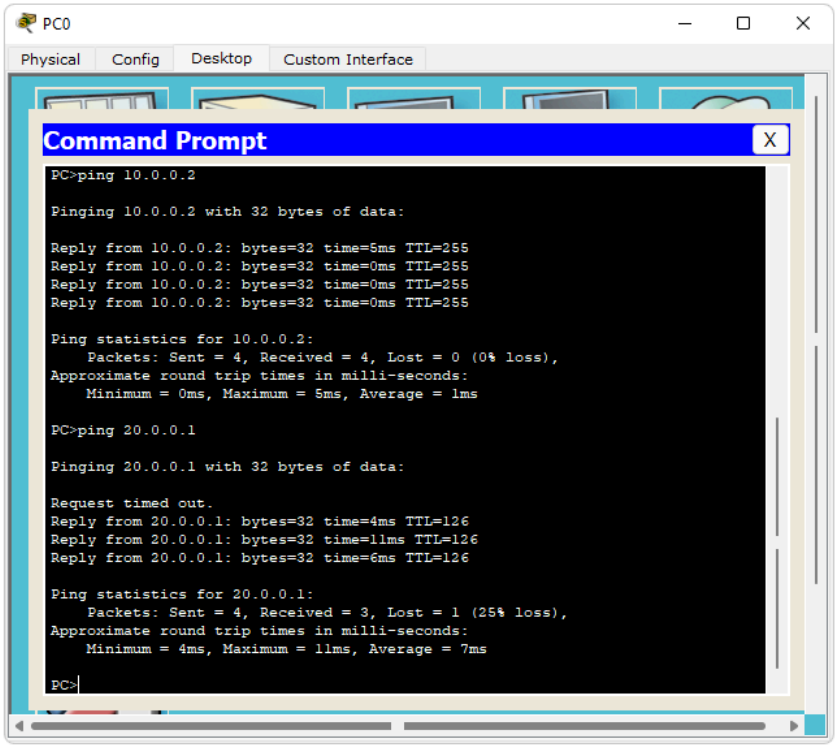


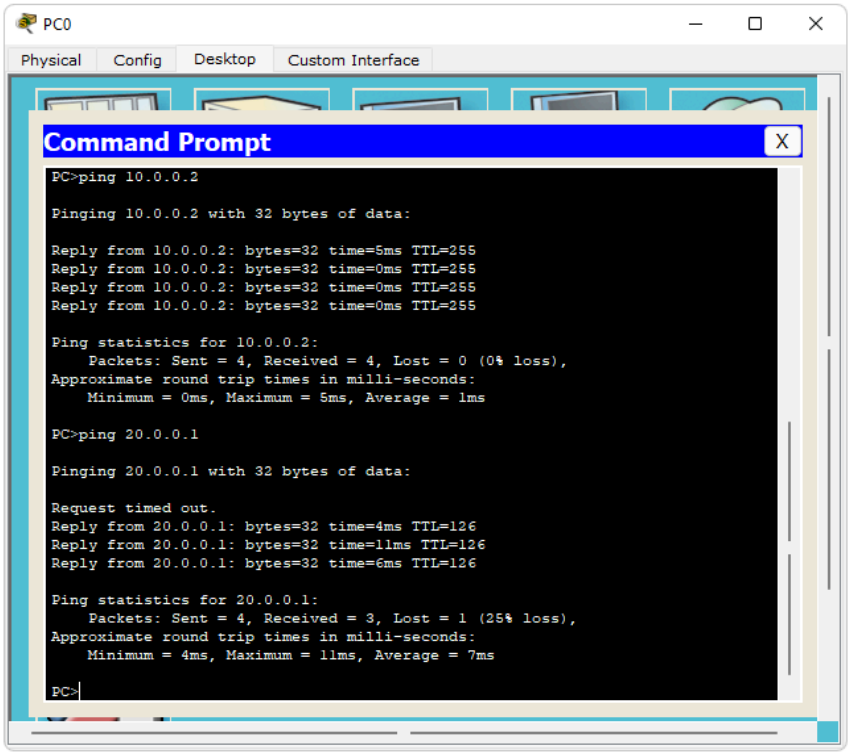


(After static routing)






PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
PC>ping 10.0.0.2
Pinging 10.0.0.2 with 32 bytes of data:
Reply from 10.0.0.2: bytes=32 time=5ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 5ms, Average = 1ms
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=4ms TTL=126
Reply from 20.0.0.1: bytes=32 time=11ms TTL=126
Reply from 20.0.0.1: bytes=32 time=6ms TTL=126
Ping statistics for 20.0.0.1:
Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 4ms, Maximum = 11ms, Average = 7ms
PC>


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
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PC>ping 10.0.0.2
Pinging 10.0.0.2 with 32 bytes of data:
Reply from 10.0.0.2: bytes=32 time=5ms TTL=255
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Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Reply from 10.0.0.2: bytes=32 time=0ms TTL=255
Ping statistics for 10.0.0.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 5ms, Average = 1ms
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Request timed out.
Reply from 20.0.0.1: bytes=32 time=4ms TTL=126
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Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
Minimum = 4ms, Maximum = 11ms, Average = 7ms
PC>