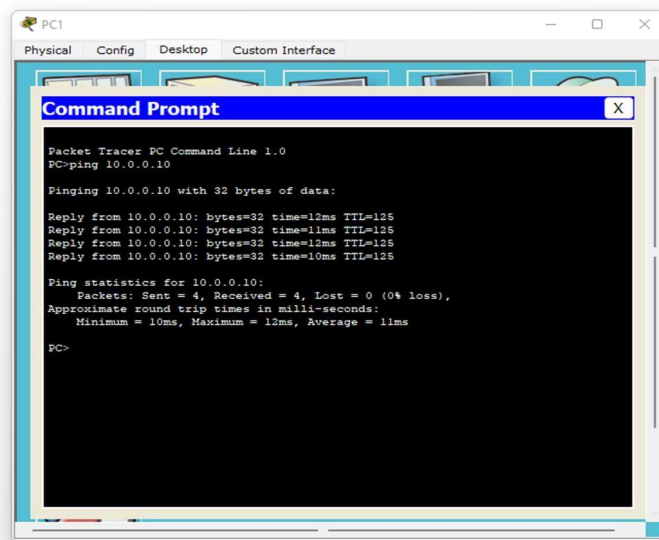
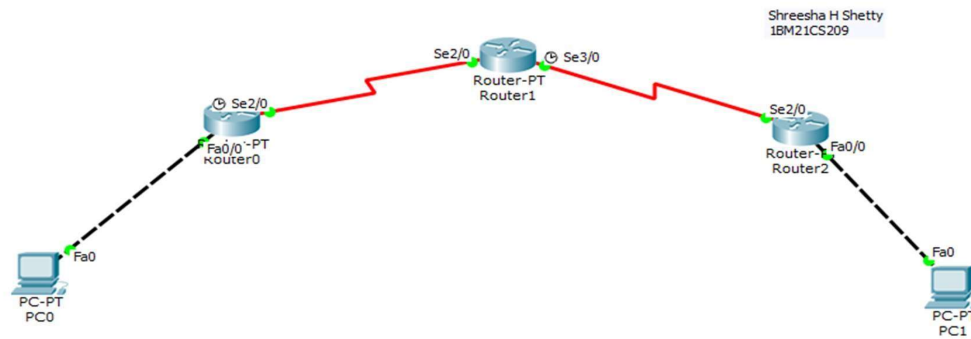


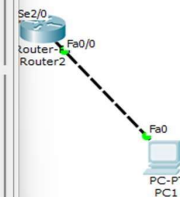
LAB-5(16-08-2023)

-1BM21CS209

7.How to configure OSPF routing protocol.



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1BM21CS209



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```
PC0
Physical Config Desktop Custom Interface

Command Prompt

PC>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=4ms TTL=125
Reply from 40.0.0.10: bytes=32 time=7ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms 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 = 4ms, Maximum = 7ms, Average = 5ms

PC>ping 40.0.0.10

Pinging 40.0.0.10 with 32 bytes of data:

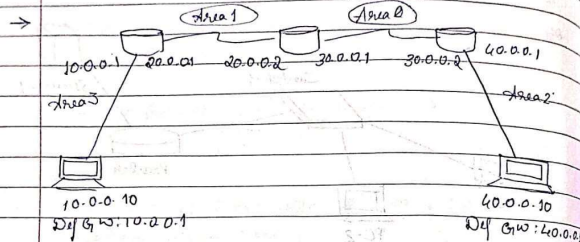
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=2ms TTL=125
Reply from 40.0.0.10: bytes=32 time=12ms TTL=125
Reply from 40.0.0.10: bytes=32 time=6ms TTL=125

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 = 12ms, Average = 5ms

PC>
```

16/8/2023

7.8 How to configure OSPF routing protocol.



Configure ip address to all interfaces

In Router 1,

```

# interface fast ethernet 2/0
# ip address 10.0.0.1 255.0.0.0
# no shutdown
# exit

```

```

# interface serial 1/0
# ip address 20.0.0.1 255.0.0.0
# encapsulation ppp
# clock rate 64000
# no shutdown
# exit.

```

```

In Router R2,
# interface serial 1/0
# ip address 20.0.0.2 255.0.0.0
# encapsulation ppp
# no shutdown
# exit

```

```

# interface serial 1/1
# ip address 30.0.0.1 255.0.0.0
# encapsulation ppp
# clock rate 64000
# no shutdown
# exit.

```

```

In router R3,
# interface serial 1/0
# ip address 30.0.0.2 255.0.0.0
# encapsulation ppp
# no shutdown
# exit.

```

```

# interface fast ethernet 2/0
# ip address 40.0.0.1 255.0.0.0
# no shutdown
# exit.

```

DOMS Page No.
 Date / /

Now enable ip routing by configuring ospf routing protocol in all router.

In Router R1,
 # router ospf 1
 # router-id 1.1.1.1
 # network 10.0.0.0 0.0.0.0 area 3
 # network 20.0.0.0 0.255.255.255 area 1
 # exit

In Router R2,
 # router ospf 1
 # router-id 2.2.2.2
 # network 20.0.0.0 0.255.255 area 1
 # network 30.0.0.0 0.255.255 area 0
 # exit

In Router R3,
 # router ospf 1
 # router-id 3.3.3.3
 # network 30.0.0.0 0.255.255 area 2
 # network 40.0.0.0 0.255.255 area 0
 # exit

show ip route

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 Date / /

In R1,
 # interface loopback 0
 # ip add 172.16.1.252 255.255.0.0
 # no shutdown

In R2,
 # interface loopback 0
 # ip add 172.16.1.253 255.255.0.0
 # no shutdown

In R3,
 # interface loopback 0
 # ip add 172.16.1.254 255.255.0.0
 # no shutdown

show ip route

In R1,
 # router ospf 1
 # area 1 virtual link 2.2.2.2
 #

In R2,

#router ospf

#area virtual link 1.1.1.1

#exit.