

Feasibility report for

IAS Lab 1 Assignment

Submitted by

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VI SEM B.Tech (IT)

Under the guidance of

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in partial fulfillment for the award of the degree of

Bachelor of Technology

in

Information Technology

at

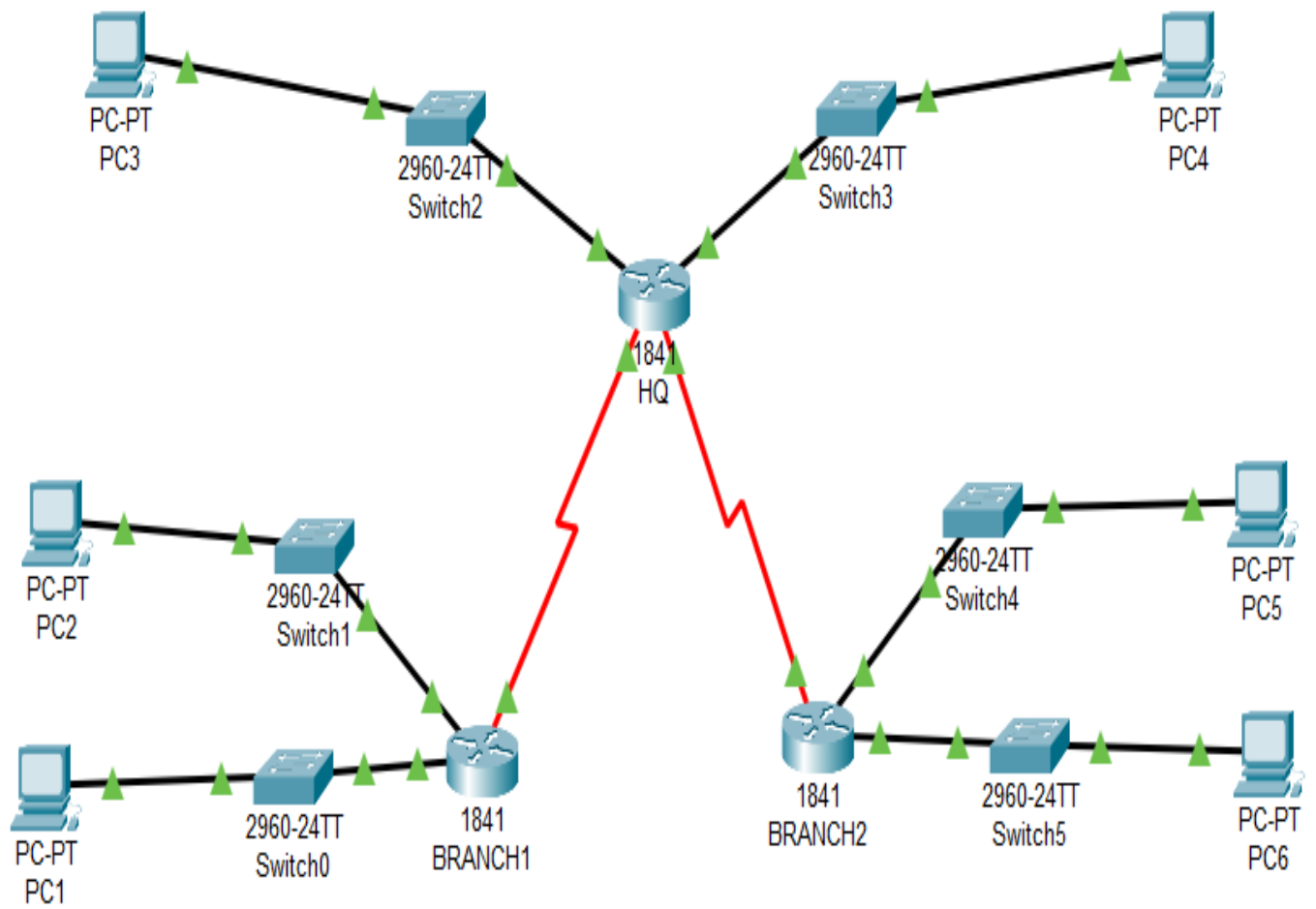


Department of Information Technology

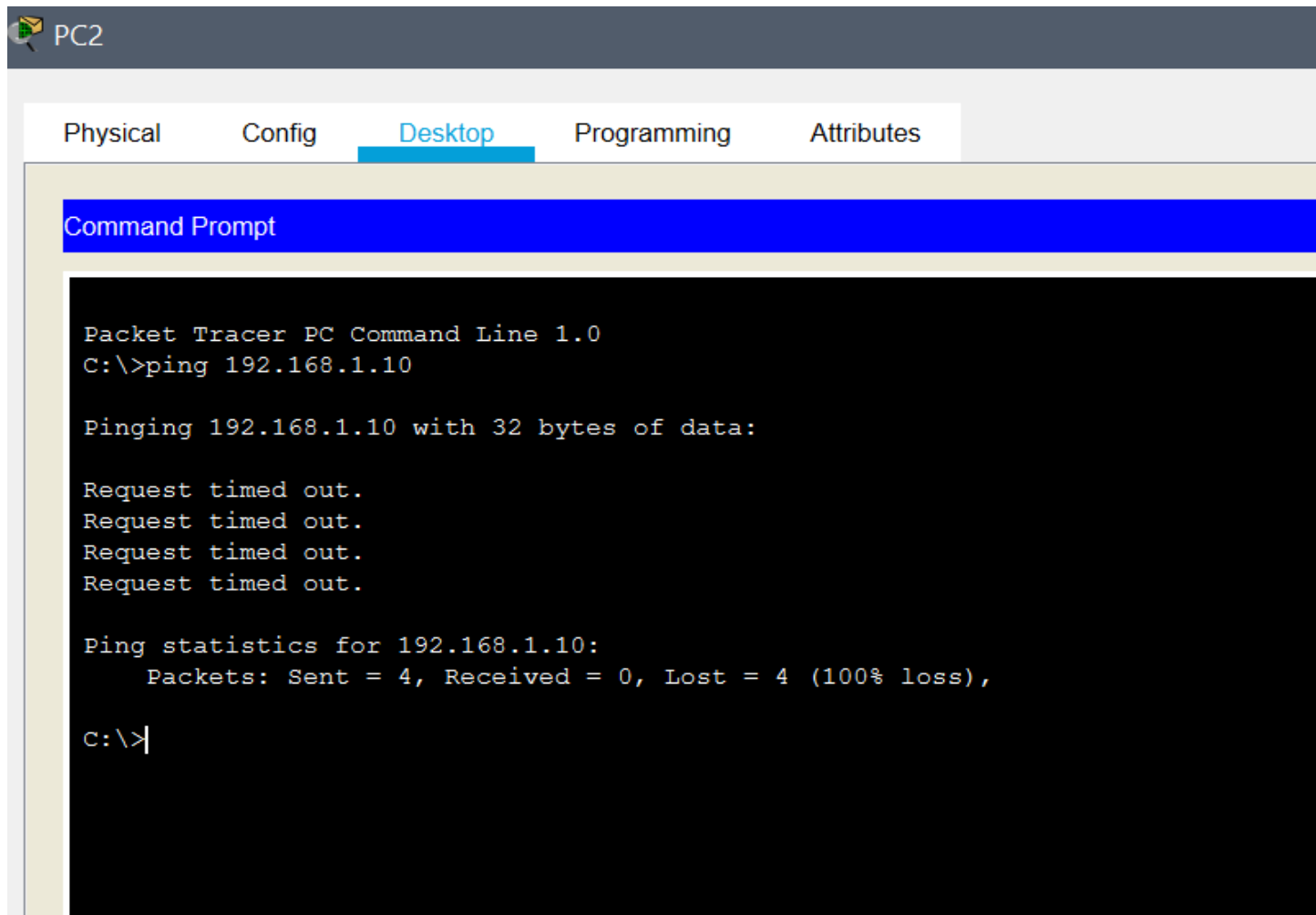
National Institute of Technology Karnataka, Surathkal

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NETWORK TOPOLOGY :



1. Write a firewall policy at interface S0/0/0 of HQ Router in the given topology that should block all incoming ICMP Echo requests. Demonstrate the operation by sending a message from PC2.



The screenshot shows the Packet Tracer interface for PC2. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 192.168.1.10, which results in four 'Request timed out' messages and a 100% loss of packets.

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.10

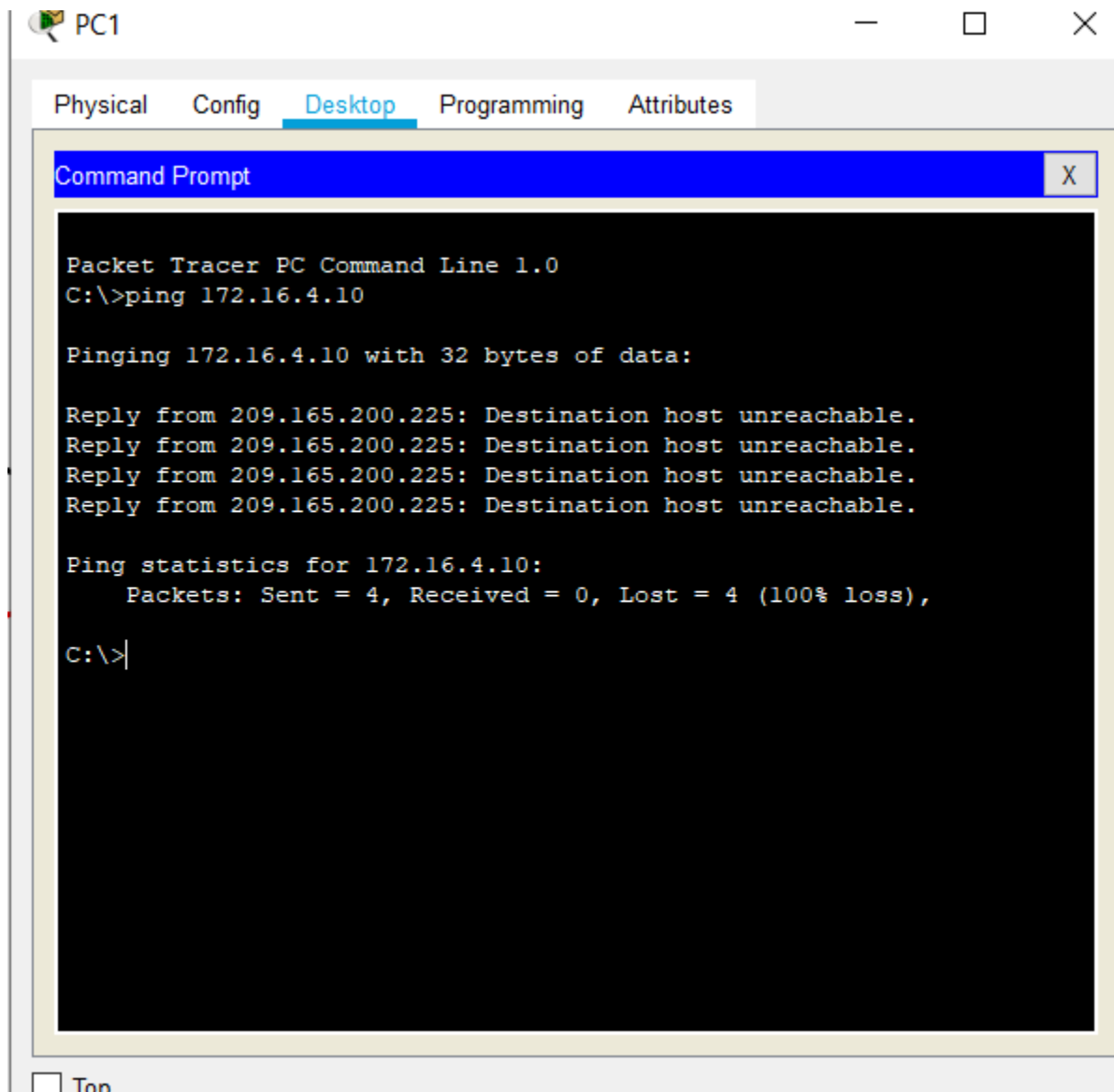
Pinging 192.168.1.10 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

2. Write a firewall policy at interface S0/0/0 of HQ Router in the given topology that should block any traffic incoming coming from 172.16.0.0/23 network. Demonstrate the blocking operation by sending a message from any system from the network 172.16.0.0/23.



The screenshot shows a Packet Tracer interface for PC1. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 172.16.4.10, which fails with 'Destination host unreachable' for all four attempts. The ping statistics show a 100% loss of packets.

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.16.4.10

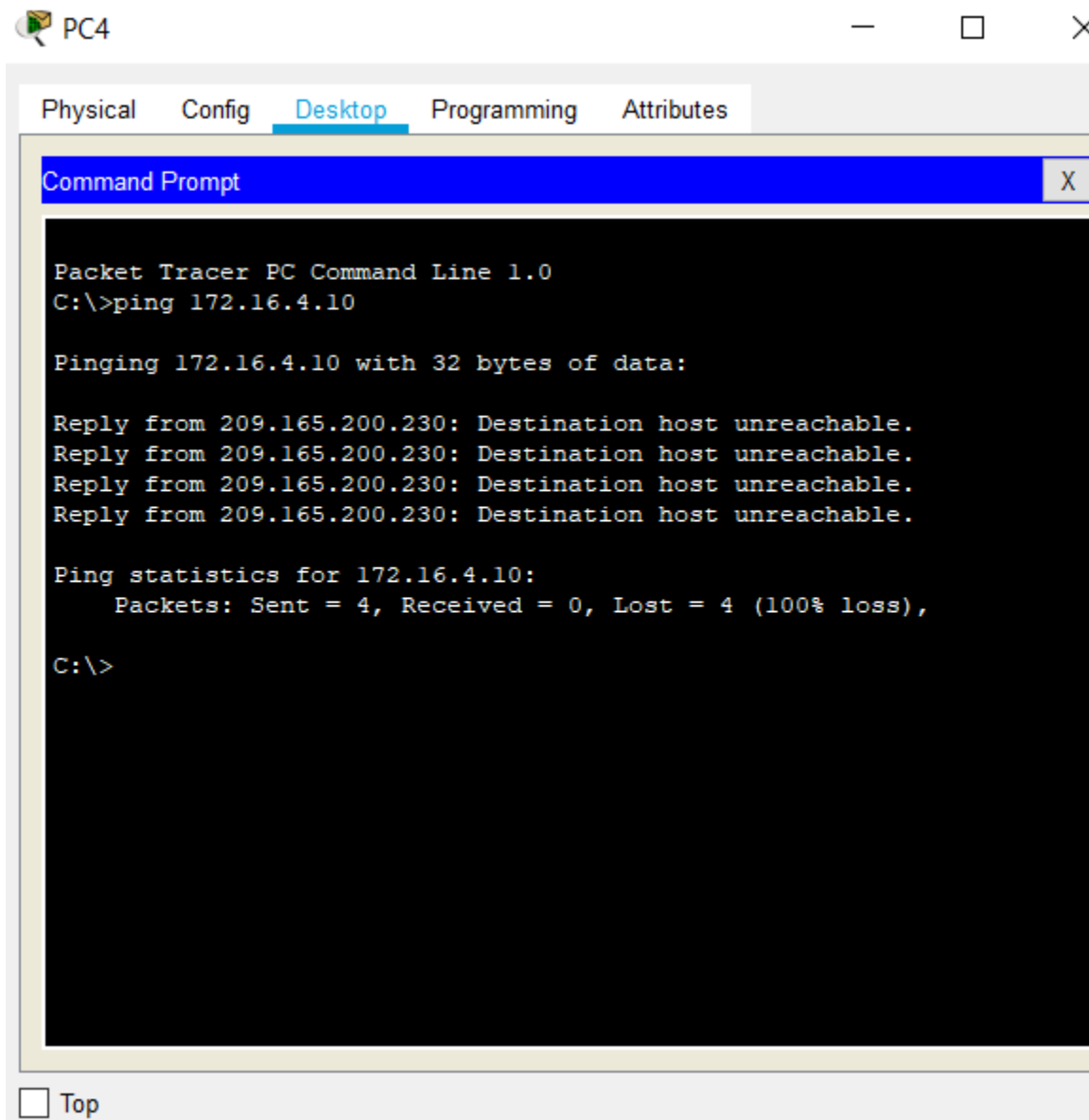
Pinging 172.16.4.10 with 32 bytes of data:

Reply from 209.165.200.225: Destination host unreachable.
Reply from 209.165.200.225: Destination host unreachable.
Reply from 209.165.200.225: Destination host unreachable.
Reply from 209.165.200.225: Destination host unreachable.

Ping statistics for 172.16.4.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

3. Write a firewall policy at interface S0/0/1BRANCH2 Router in the given topology that should allow any traffic incoming coming from PC3 and rest of the traffic should be blocked. Demonstrate the operation by sending messages from any system from any network and PC3.



```
Packet Tracer PC Command Line 1.0
C:\>ping 172.16.4.10

Pinging 172.16.4.10 with 32 bytes of data:

Reply from 209.165.200.230: Destination host unreachable.
Reply from 209.165.200.230: Destination host unreachable.
Reply from 209.165.200.230: Destination host unreachable.
Reply from 209.165.200.230: Destination host unreachable.

Ping statistics for 172.16.4.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```



PC3



Physical

Config

Desktop

Programming

Attributes

Command Prompt



Packet Tracer PC Command Line 1.0

C:\>ping 172.16.4.10

Pinging 172.16.4.10 with 32 bytes of data:

Request timed out.

Reply from 172.16.4.10: bytes=32 time=7ms TTL=126

Reply from 172.16.4.10: bytes=32 time=1ms TTL=126

Reply from 172.16.4.10: bytes=32 time=1ms TTL=126

Ping statistics for 172.16.4.10:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

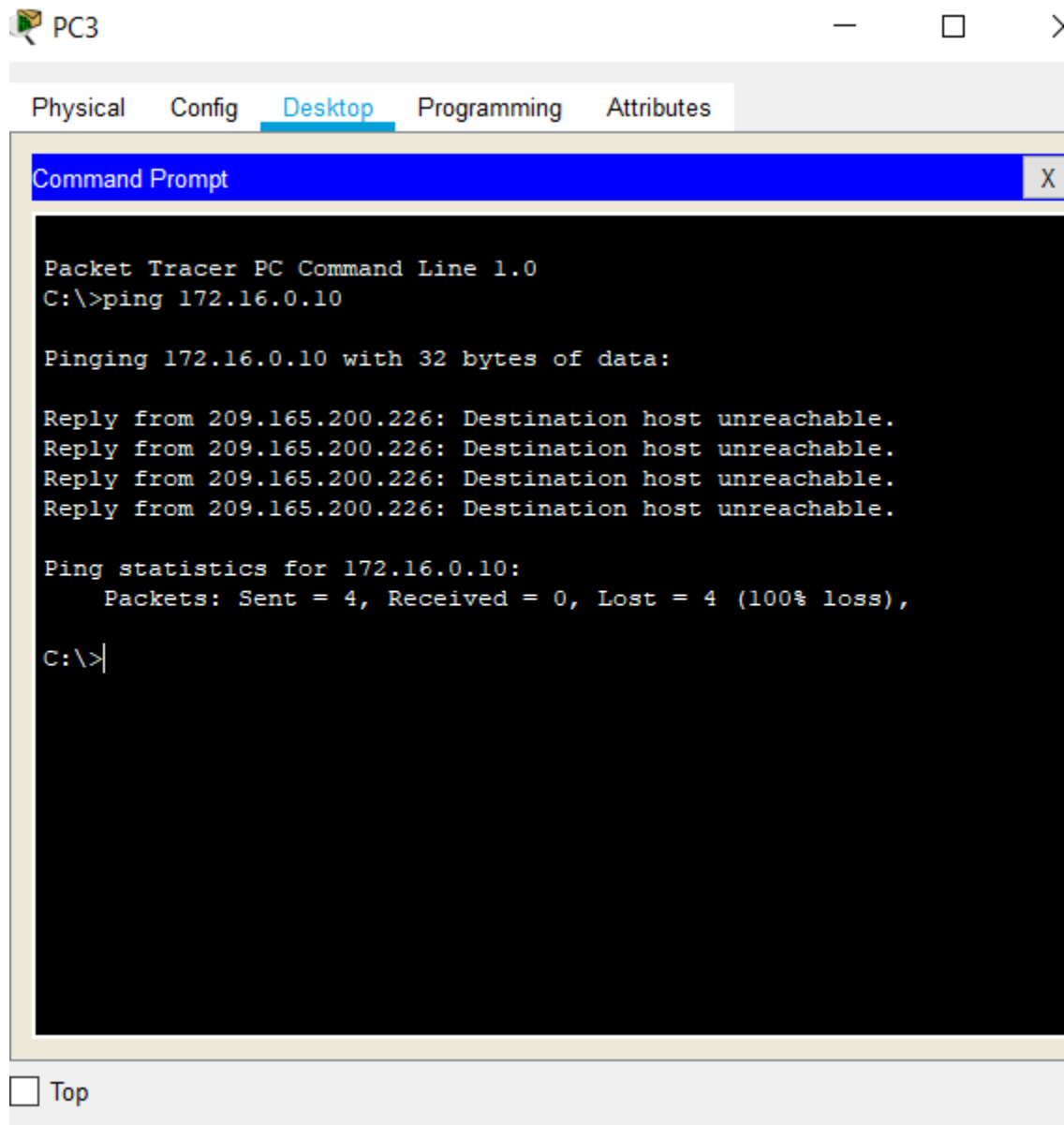
Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 7ms, Average = 3ms

C:\>|

☐ Top

4. Write a firewall policy at interface S0/0/0 of BRANCH1 Router in the given topology that should block any traffic incoming coming from any system belonging to 192.168.1.0/25 network. Demonstrate the operation by sending a message from any system of the network 192.16.0.0.



The screenshot shows a Packet Tracer PC Command Line window for PC3. The window has tabs for Physical, Config, Desktop (selected), Programming, and Attributes. The Command Prompt shows the following output:

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.16.0.10

Pinging 172.16.0.10 with 32 bytes of data:

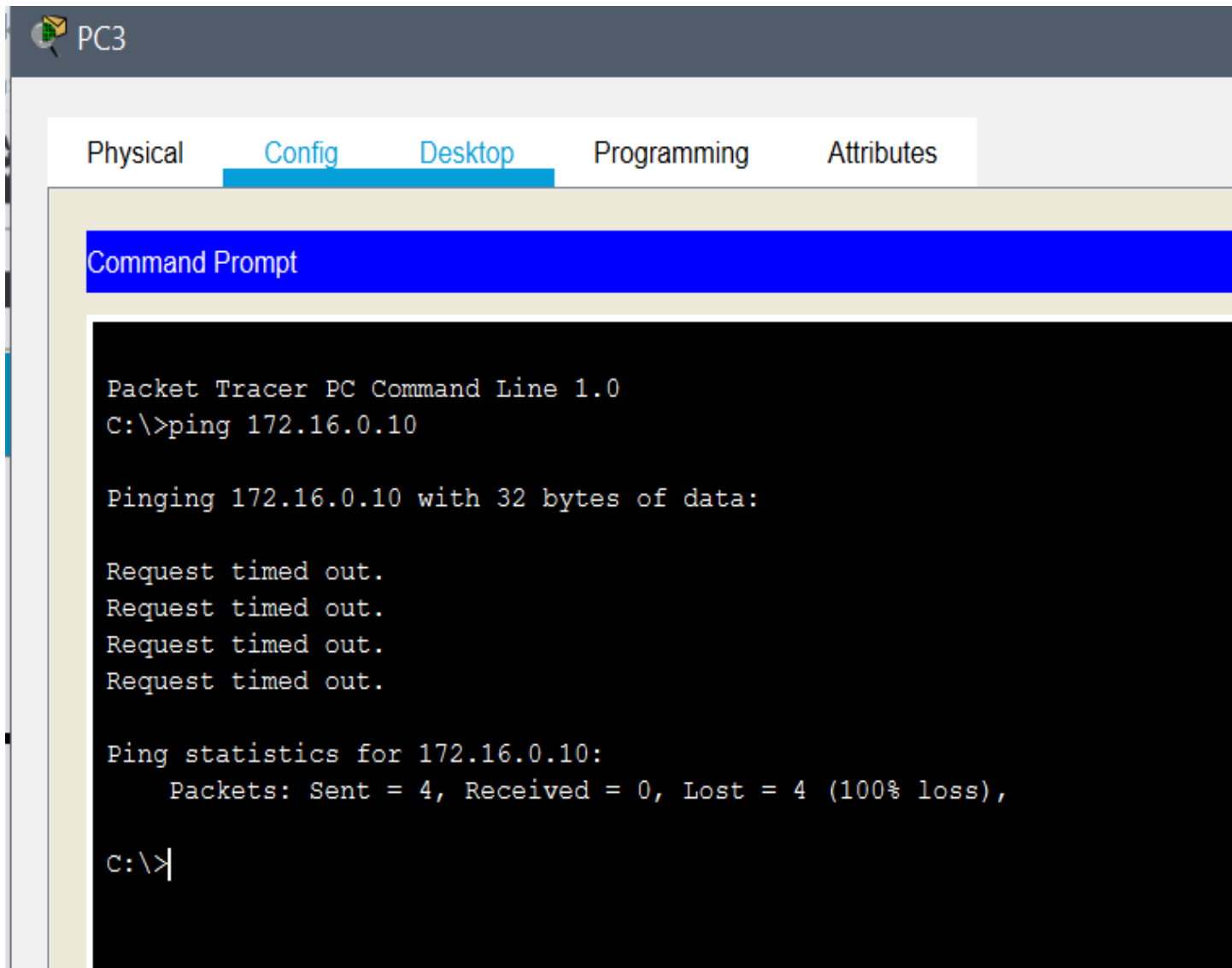
Reply from 209.165.200.226: Destination host unreachable.
Reply from 209.165.200.226: Destination host unreachable.
Reply from 209.165.200.226: Destination host unreachable.
Reply from 209.165.200.226: Destination host unreachable.

Ping statistics for 172.16.0.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

At the bottom of the window, there is a checkbox labeled "Top".

5. Write a firewall policy at interface S0/0/0 of BRANCH1 Router in the given topology that should block any traffic incoming coming from any network. Demonstrate the operation by sending a message from any system of the network 192.16.0.0.



The screenshot shows a Packet Tracer PC interface for PC3. The 'Config' tab is selected. A 'Command Prompt' window is open, displaying the following text:

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.16.0.10

Pinging 172.16.0.10 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.16.0.10:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```