

LAPORAN TUGAS

SOAL UAS

Diajukan untuk Memenuhi Tugas Mata Kuliah

” Konsep Jaringan”

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KELAS: 2/D4 TI A

D4 Teknik Informatika

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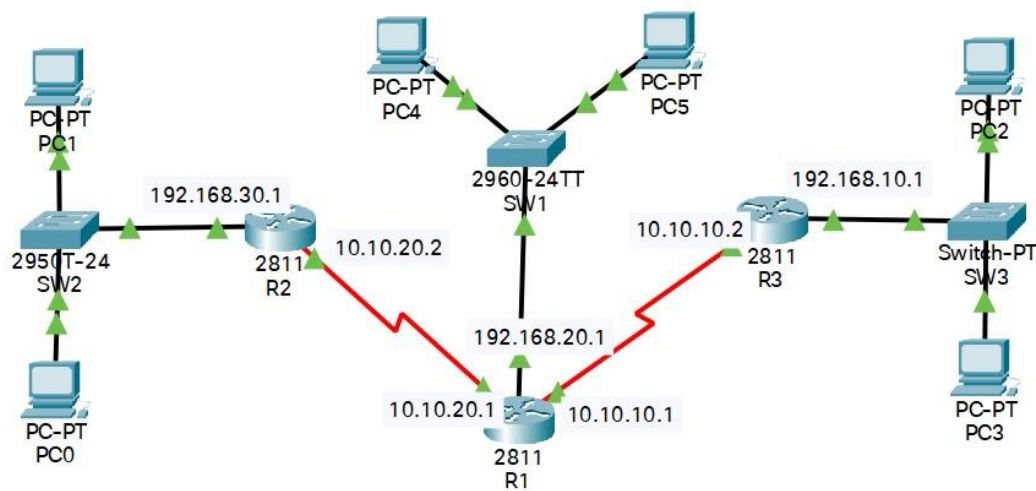
Soal UAS Semester Gasal

- **Repository Github:**

[GITHUB PENGUMPULAN](#)

Praktikum Konsep Jaringan

Soal 1



Konfigurasi tabel routing pada R1, R2 dan R3 dengan menggunakan statik routing sehingga seluruh PC yang ada dapat terhubung dengan baik.

Jawaban:

Ping antar device:

The image displays three screenshots of network device configuration windows, labeled R3, R2, and R1, showing the configuration of static routes. Each window has a sidebar with a tree view of configuration categories: GLOBAL (Settings, Algorithm Settings), ROUTING (Static, RIP), SWITCHING (VLAN Database), and INTERFACE (FastEthernet0/0 through FastEthernet1/7). The 'Static Routes' configuration area is active in each window.

R3 Configuration:

- Network:
- Mask:
- Next Hop:
- Add button
- Network Address: 192.168.10.0/24 via 10.10.20.1
- Remove button

R2 Configuration:

- Network:
- Mask:
- Next Hop:
- Add button
- Network Address: 192.168.30.0/24 via 192.168.10.2
- Remove button

R1 Configuration:

- Network:
- Mask:
- Next Hop:
- Add button
- Network Address: 192.168.20.0/24 via 192.168.10.1
- Network Address: 10.10.20.0/24 via 10.10.10.2
- Remove button

PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.30.2

Pinging 192.168.30.2 with 32 bytes of data:

Reply from 192.168.30.2: bytes=32 time<1ms TTL=128
Reply from 192.168.30.2: bytes=32 time<1ms TTL=128
Reply from 192.168.30.2: bytes=32 time<1ms TTL=128
Reply from 192.168.30.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.30.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=1ms TTL=126
Reply from 192.168.20.3: bytes=32 time=25ms TTL=126

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 25ms, Average = 7ms

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Request timed out.
Reply from 192.168.10.3: bytes=32 time=10ms TTL=125
Reply from 192.168.10.3: bytes=32 time=23ms TTL=125
Reply from 192.168.10.3: bytes=32 time=2ms TTL=125

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 23ms, Average = 11ms

C:\>
```

☐ Top

PC3

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=13ms TTL=126
Reply from 192.168.20.2: bytes=32 time=7ms TTL=126
Reply from 192.168.20.2: bytes=32 time=16ms TTL=126
Reply from 192.168.20.2: bytes=32 time=13ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 7ms, Maximum = 16ms, Average = 12ms

C:\>ping 192.168.30.2

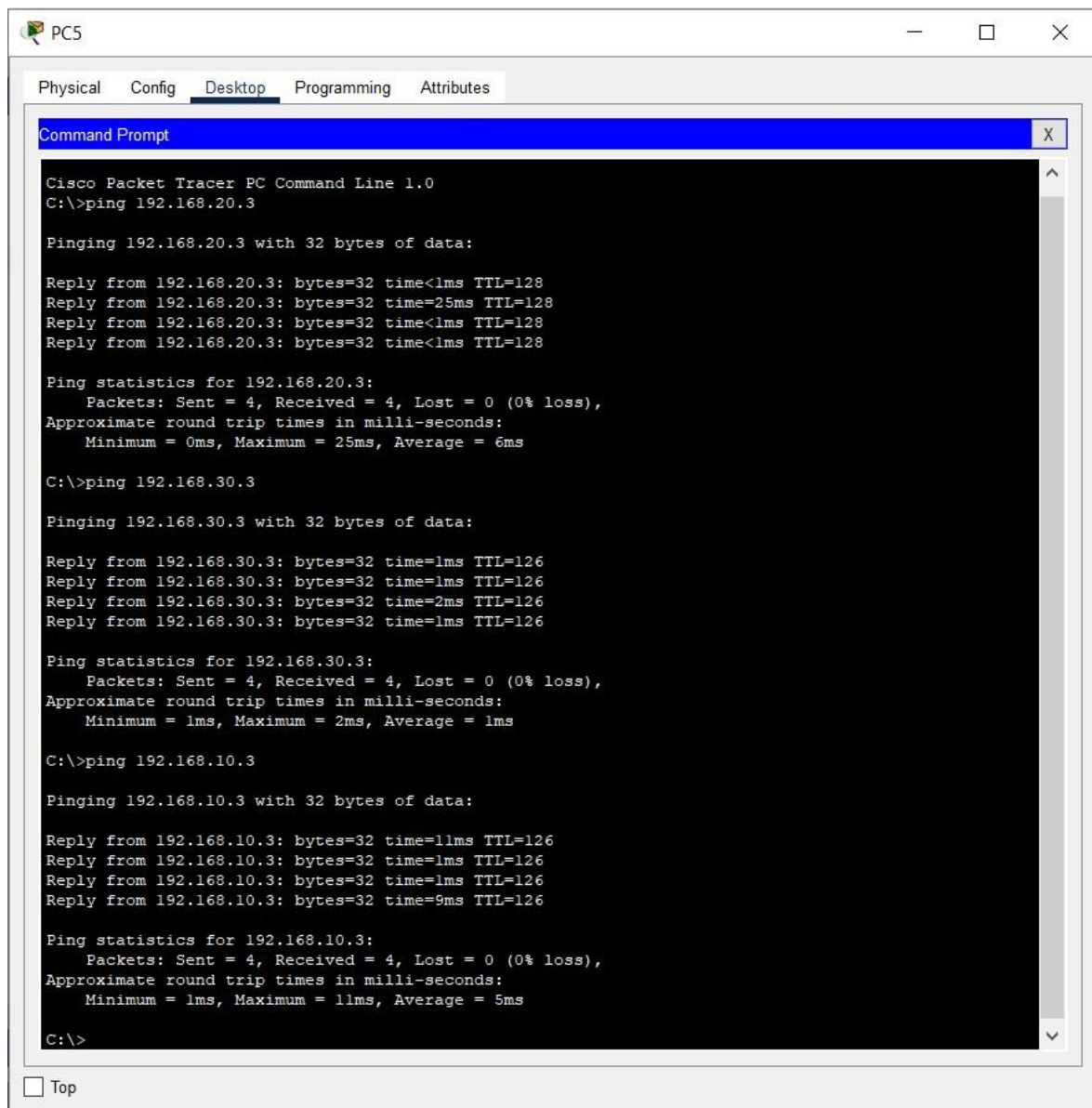
Pinging 192.168.30.2 with 32 bytes of data:

Reply from 192.168.30.2: bytes=32 time=18ms TTL=125
Reply from 192.168.30.2: bytes=32 time=2ms TTL=125
Reply from 192.168.30.2: bytes=32 time=18ms TTL=125
Reply from 192.168.30.2: bytes=32 time=24ms TTL=125

Ping statistics for 192.168.30.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 24ms, Average = 15ms

C:\>
```

☐ Top



The screenshot shows a Cisco Packet Tracer PC Command Prompt window. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, and the Command Prompt is open. The prompt shows the following commands and output:

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time=25ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 25ms, Average = 6ms

C:\>ping 192.168.30.3

Pinging 192.168.30.3 with 32 bytes of data:

Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=2ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.30.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

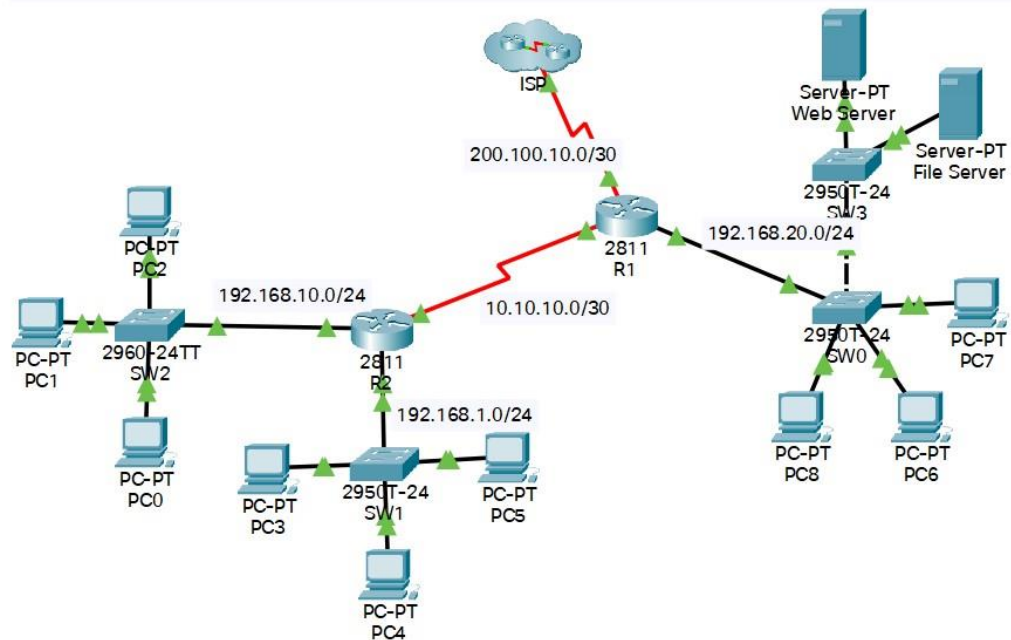
Reply from 192.168.10.3: bytes=32 time=11ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 11ms, Average = 5ms

C:\>
```

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

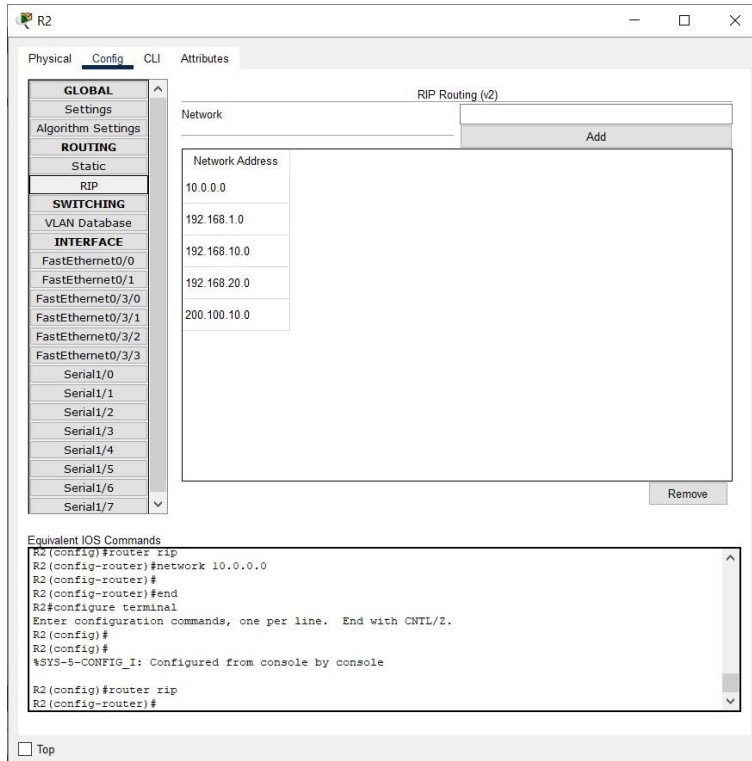
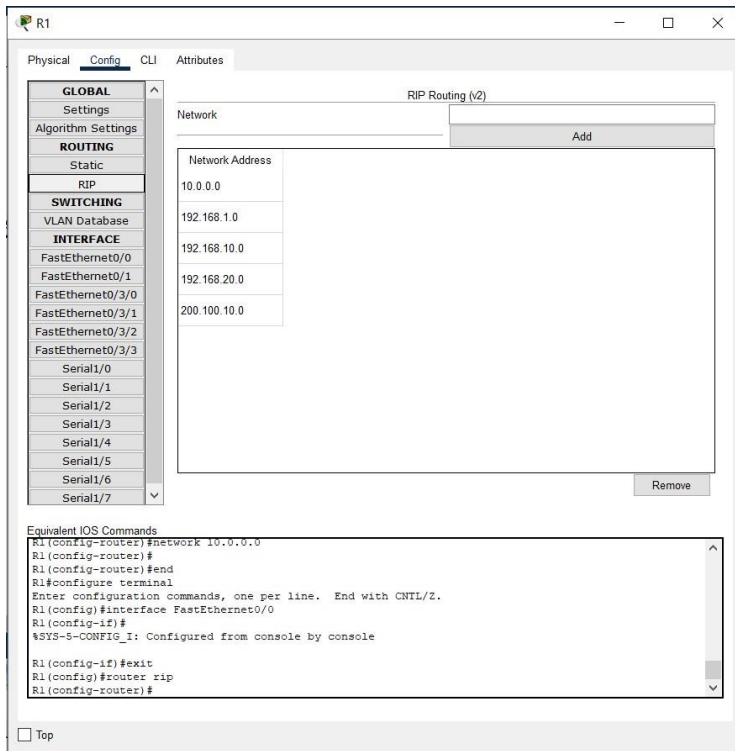
Soal 2



Konfigurasi tabel routing pada R1, R2 dan R3 dengan menggunakan RIP sehingga seluruh PC dapat terhubung ke ISP dengan baik.

Jawaban:

Konfigurasi Router:



Ping antar device:

PC2

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127
Reply from 192.168.1.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Request timed out.
Reply from 192.168.20.2: bytes=32 time=15ms TTL=126
Reply from 192.168.20.2: bytes=32 time=13ms TTL=126
Reply from 192.168.20.2: bytes=32 time=8ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 8ms, Maximum = 15ms, Average = 12ms

C:\>ping 200.100.10.0

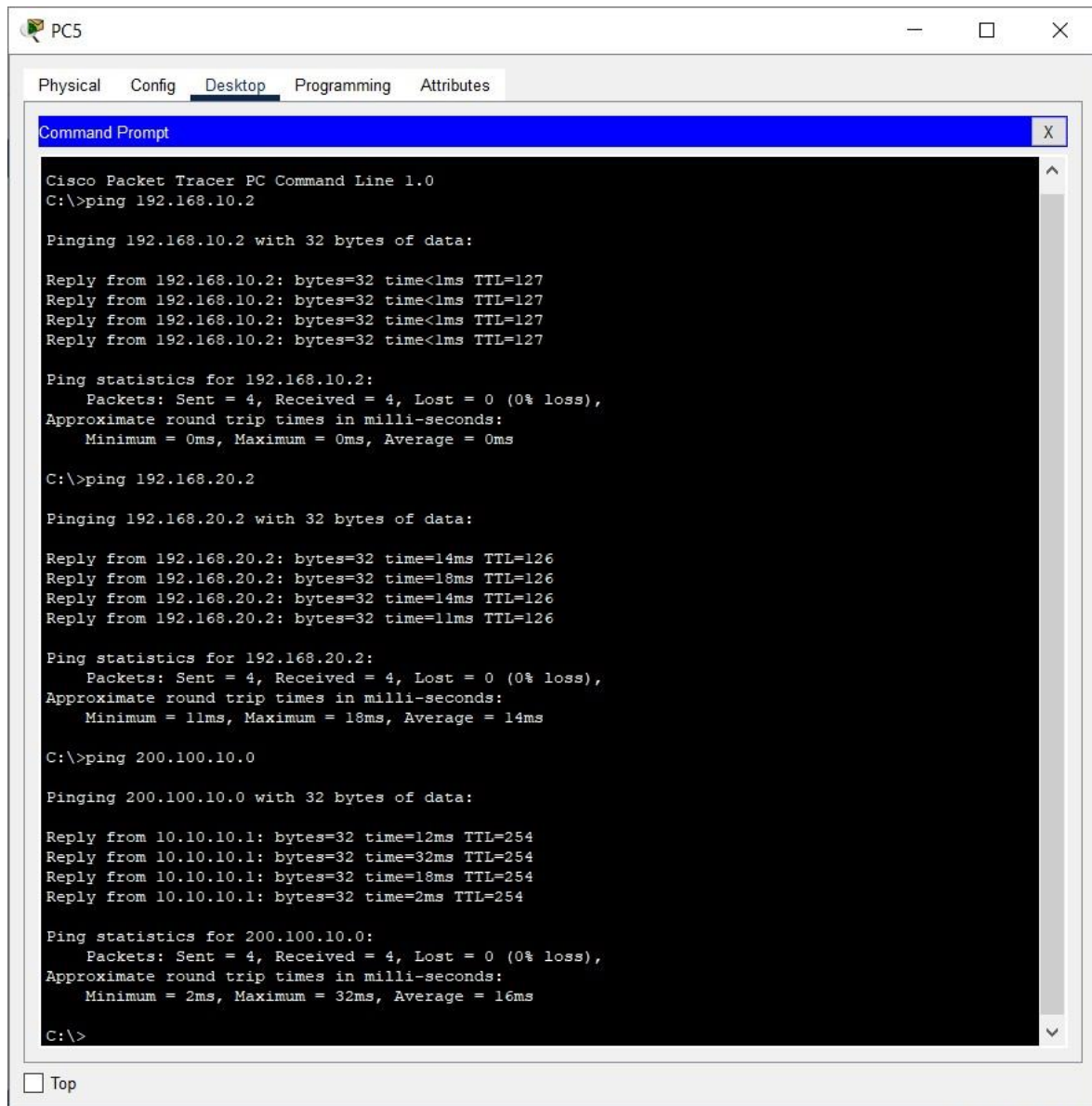
Pinging 200.100.10.0 with 32 bytes of data:

Reply from 10.10.10.1: bytes=32 time=12ms TTL=254
Reply from 10.10.10.1: bytes=32 time=16ms TTL=254
Reply from 10.10.10.1: bytes=32 time=18ms TTL=254
Reply from 10.10.10.1: bytes=32 time=2ms TTL=254

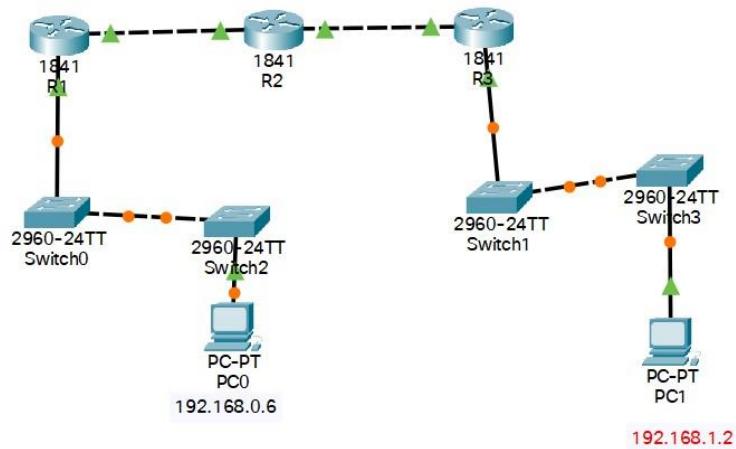
Ping statistics for 200.100.10.0:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 18ms, Average = 12ms

C:\>
```

☐ Top



Soal 3



Permasalahan yang harus di selesaikan: PC0 tidak bisa ping ke PC 1!

Jawaban:

Di sini saya akan menyelesaikan permasalahannya menggunakan Static Routing.

Konfigurasi Router:

R1

Physical

Config

CLI

Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

VLAN Database

INTERFACE

FastEthernet0/0

FastEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.1.0/24 via 10.0.0.2

Remove

Equivalent IOS Commands

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

R1>enable

R1#

R1#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

R1(config)#

R1(config)#

Top

R2

Physical
Config
CLI
Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

Static Routes
Network
Mask
Next Hop
Add
Network Address
192.168.1.0/24 via 172.16.0.2
192.168.0.0/24 via 10.0.0.1
Remove

Equivalent IOS Commands
VLINEK010-S-UPDOWN: Line protocol on interface FastEthernet0/1, changed state to up
R2>enable
R2#
R2#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#
R2(config)#
00:00:40: %OSPF-5-ADJCHG: Process 1, Nbr 3.3.3.3 on FastEthernet0/0 from LOADING to FULL, Loading
Done

☐ Top

R3

Physical
Config
CLI
Attributes

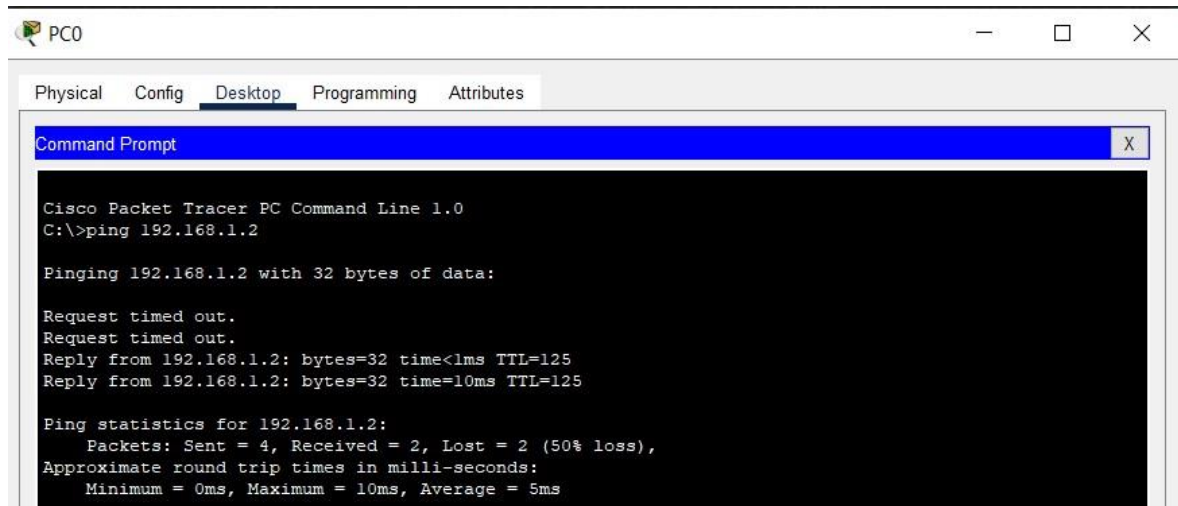
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

Static Routes
Network
Mask
Next Hop
Add
Network Address
192.168.0.0/24 via 172.16.0.1
Remove

Equivalent IOS Commands
R3#
R3#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#router rip
R3(config-router)#
R3(config-router)#end
R3#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R3(config)#
R3(config)#
%SYS-5-CONFIG_I: Configured from console by console

☐ Top

Ping antar device:



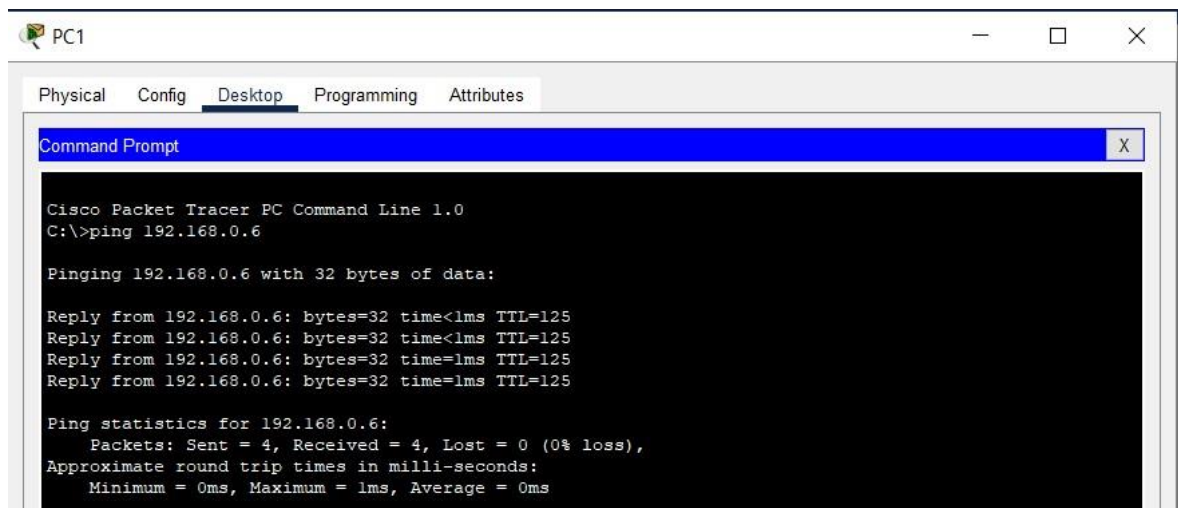
The screenshot shows the 'PC0' window in Cisco Packet Tracer. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 192.168.1.2. The output indicates that the first two requests timed out, while the next two succeeded with 32 bytes of data, 1ms round trip time, and a TTL of 125. The ping statistics show 4 packets sent, 2 received, and 2 lost (50% loss), with an average round trip time of 5ms.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 192.168.1.2: bytes=32 time<1ms TTL=125
Reply from 192.168.1.2: bytes=32 time=10ms TTL=125

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 10ms, Average = 5ms
```



The screenshot shows the 'PC1' window in Cisco Packet Tracer. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of a ping command to 192.168.0.6. The output indicates that all four requests succeeded with 32 bytes of data, 1ms round trip time, and a TTL of 125. The ping statistics show 4 packets sent, 4 received, and 0 lost (0% loss), with an average round trip time of 0ms.

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.6

Pinging 192.168.0.6 with 32 bytes of data:

Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125

Ping statistics for 192.168.0.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```