

NAMA : DEWI RAHMAWATI

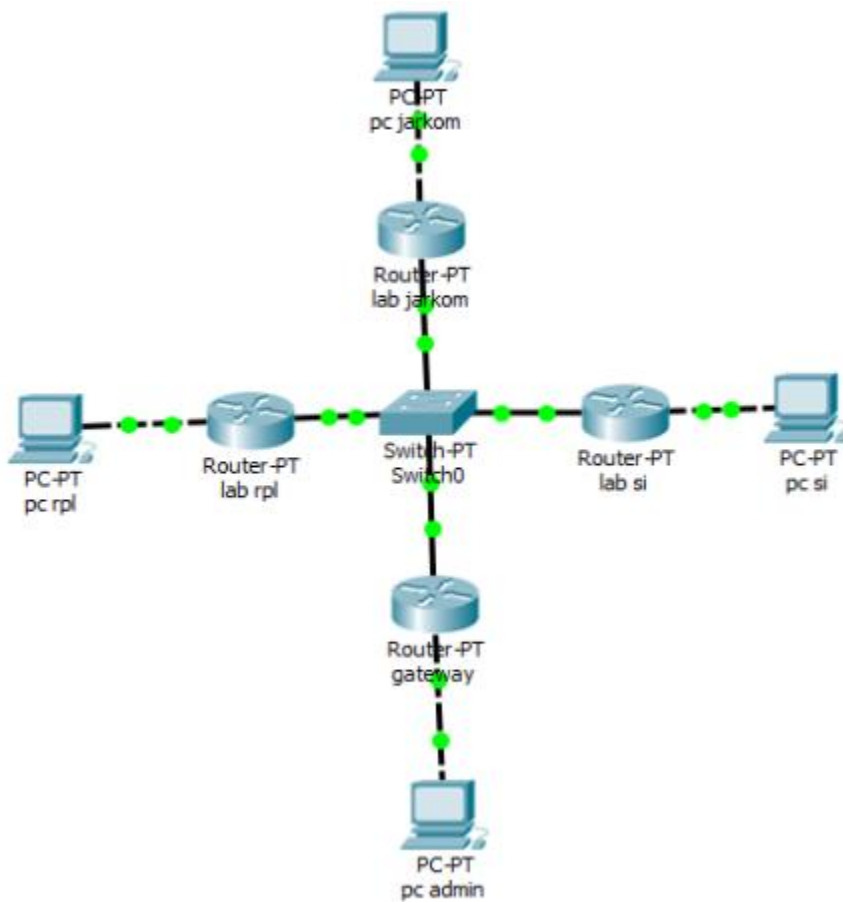
NIM : L200170188

KELAS : D

TUGAS MODUL 11

JARINGAN KOMPUTER

NOMOR 1



1. Melakukan konfigurasi Router pada
 - a. Router Jarkom

```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 172.16.0.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

Router(config-if)#int fa 1/0
Router(config-if)#ip address 172.15.0.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Router(config-if)#exit
Router(config)#hostname jarkom
jarkom(config)#

```

b. Router RPL

```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa 0/0
Router(config-if)#ip address 172.18.0.1 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

Router(config-if)#int fa 1/0
Router(config-if)#ip address 172.15.0.3 255.255.255.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Router(config-if)#

```

c. Router SI

```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname si
si(config)#int fa 0/0
si(config-if)#ip address 172.17.0.1 255.255.255.0
si(config-if)#no shutdown

si(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

si(config-if)#int fa 1/0
si(config-if)#ip address 172.15.0.2 255.255.255.0
si(config-if)#no shutdown

si(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
si(config-if)#

```

d. Router Gateway

```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname ums
ums(config)#int fa 0/0
ums(config-if)#ip address 172.19.0.1 255.255.255.0
ums(config-if)#no shutdown

ums(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

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

ums(config-if)#int fa 1/0
ums(config-if)#ip address 172.15.0.4 255.255.255.0
ums(config-if)#no shutdown

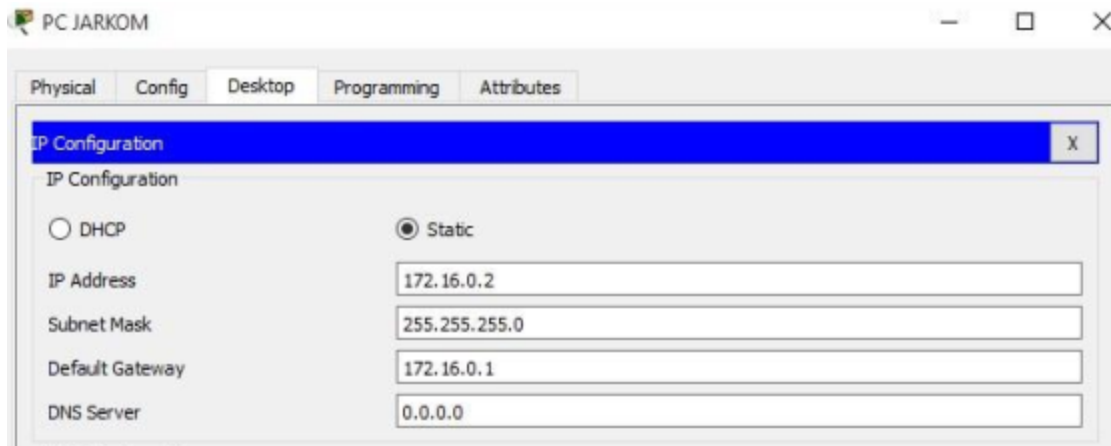
ums(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up
ums(config-if)#

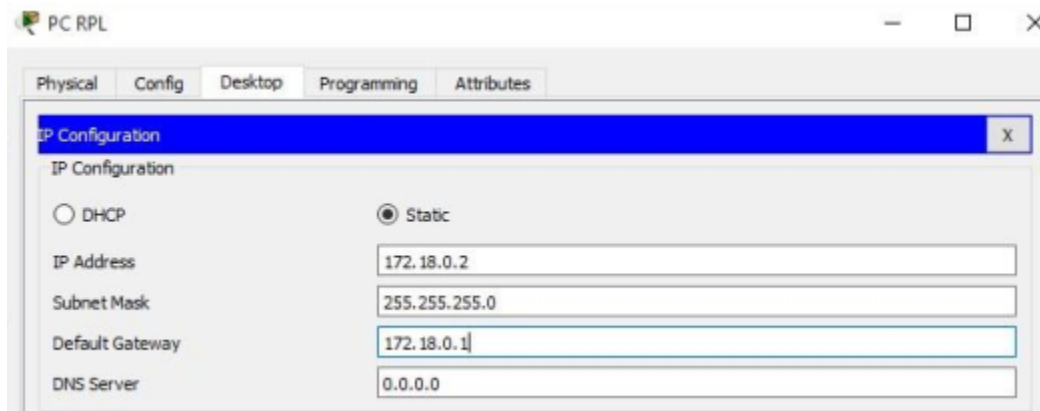
```

2. Melakukan konfigurasi pada

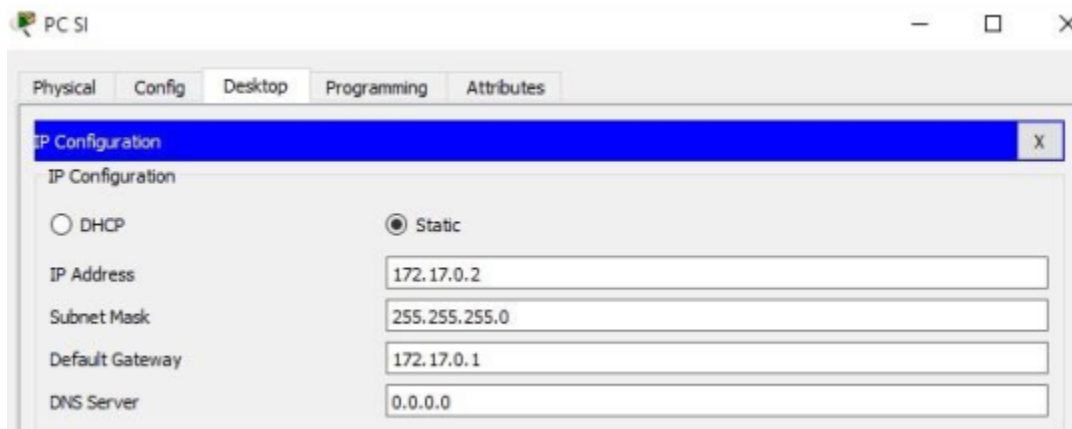
a. PC Jarkom



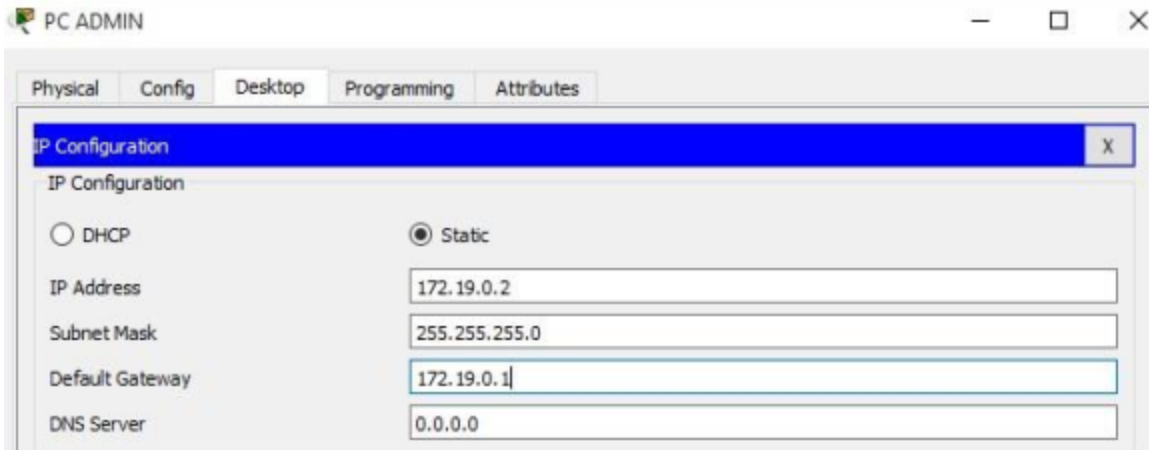
b. PC RPL



c. PC SI



d. PC ADMIN



3. Melakukan routing pada
 - a. Router Jarkom

```

Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

jarkom>enable
jarkom#conf term
Enter configuration commands, one per line. End with CNTL/Z.
jarkom(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.3
jarkom(config)#ip route 172.17.0.0 255.255.255.0 172.15.0.2
jarkom(config)#ip route 172.19.0.0 255.255.255.0 172.15.0.4
jarkom(config)#

```

- b. Router RPL

```

Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

rpl>enable
rpl#conf term
Enter configuration commands, one per line. End with CNTL/Z.
rpl(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
rpl(config)#ip route 172.17.0.0 255.255.255.0 172.15.0.2
rpl(config)#ip route 172.19.0.0 255.255.255.0 172.15.0.4
rpl(config)#

```

c. Router SI

```

Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

si>enable
si#conf term
Enter configuration commands, one per line. End with CNTL/Z.
si(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
si(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.3
si(config)#ip route 172.19.0.0 255.255.255.0 172.15.0.4
si(config)#

```

d. Router Gateway

```

Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

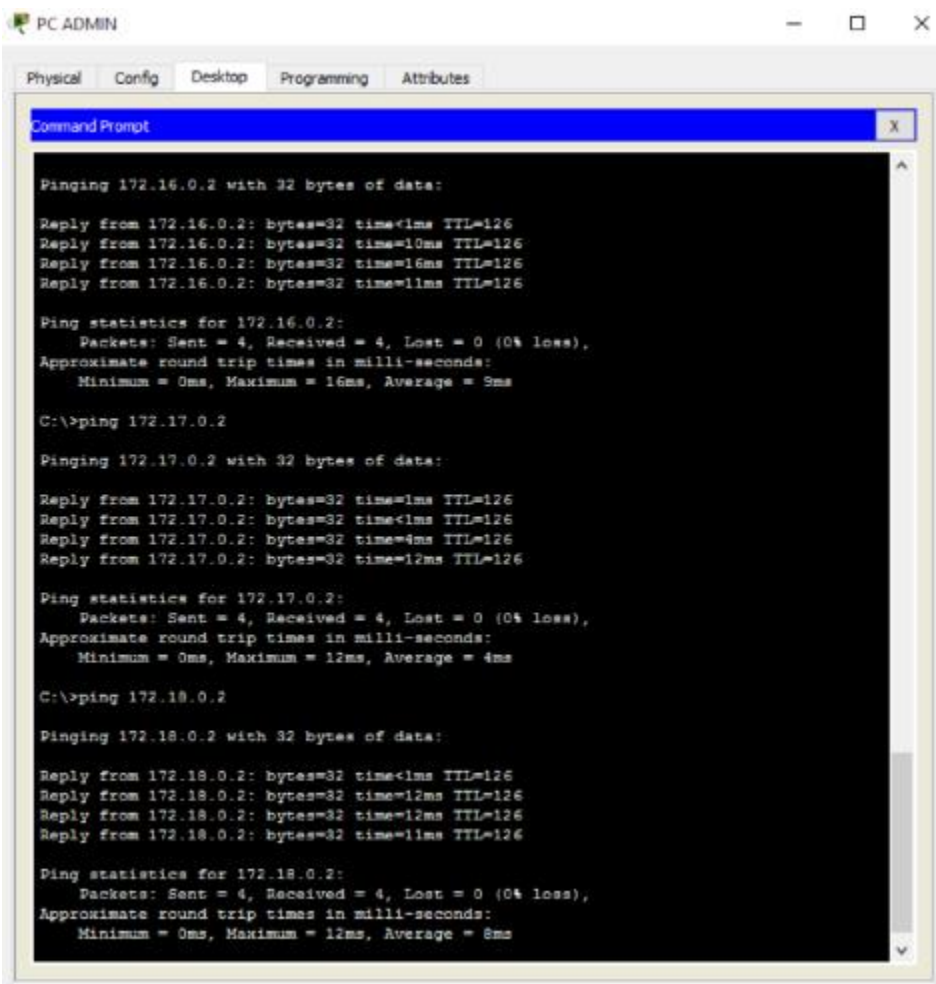
Press RETURN to get started!

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

ums>enable
ums#conf term
Enter configuration commands, one per line. End with CNTL/Z.
ums(config)#ip route 172.16.0.0 255.255.255.0 172.16.0.1
ums(config)#ip route 172.18.0.0 255.255.255.0 172.16.0.3
ums(config)#ip route 172.19.0.0 255.255.255.0 172.16.0.4
%Invalid next hop address (it's this router)
ums(config)#ip route 172.17.0.0 255.255.255.0 172.16.0.2
ums(config)#

```

4. Melakukan ping dari PC ADMIN



PC ADMIN

Physical Config Desktop Programming Attributes

Command Prompt

```

Pinging 172.16.0.2 with 32 bytes of data:

Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time=10ms TTL=126
Reply from 172.16.0.2: bytes=32 time=16ms TTL=126
Reply from 172.16.0.2: bytes=32 time=11ms TTL=126

Ping statistics for 172.16.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 16ms, Average = 9ms

C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time=4ms TTL=126
Reply from 172.17.0.2: bytes=32 time=12ms TTL=126

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 12ms, Average = 4ms

C:\>ping 172.18.0.2

Pinging 172.18.0.2 with 32 bytes of data:

Reply from 172.18.0.2: bytes=32 time<1ms TTL=126
Reply from 172.18.0.2: bytes=32 time=12ms TTL=126
Reply from 172.18.0.2: bytes=32 time=12ms TTL=126
Reply from 172.18.0.2: bytes=32 time=11ms TTL=126

Ping statistics for 172.18.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 12ms, Average = 8ms

```


NOMOR 2 (STATIC)



1. Melakukan konfigurasi pada
 - a. Router Gateway

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname gateway
gateway(config)#int se 2/0
gateway(config-if)#ip address 192.168.1.1
% Incomplete command.
gateway(config-if)#ip address 192.168.1.1 255.255.255.0
gateway(config-if)#no shutdown
gateway(config-if)#
```

- b. Router Jarkom

```
Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname jarkom
jarkom(config)#int se 2/0
jarkom(config-if)#ip address 192.168.1.2 255.255.255.0
jarkom(config-if)#no shutdown
jarkom(config-if)#int se 3/0
jarkom(config-if)#clock rate 2000000
jarkom(config-if)#ip address 192.168.2.1 255.255.255.0
jarkom(config-if)#no shutdown
jarkom(config-if)#
```

- c. Router RPL


```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname rpl
rpl(config)#int se 2/0
rpl(config-if)#clock rate 2000000
rpl(config-if)#ip address 192.168.3.1 255.255.255.0
rpl(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
rpl(config-if)#int se 3/0
rpl(config-if)#ip address 192.168.2.2 255.255.255.0
rpl(config-if)#no shutdown

rpl(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

rpl(config-if)#

```

d. Router SI

```

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname si
si(config)#int se 2/0
si(config-if)#ip address 192.168.3.2 255.255.255.0
si(config-if)#no shutdown

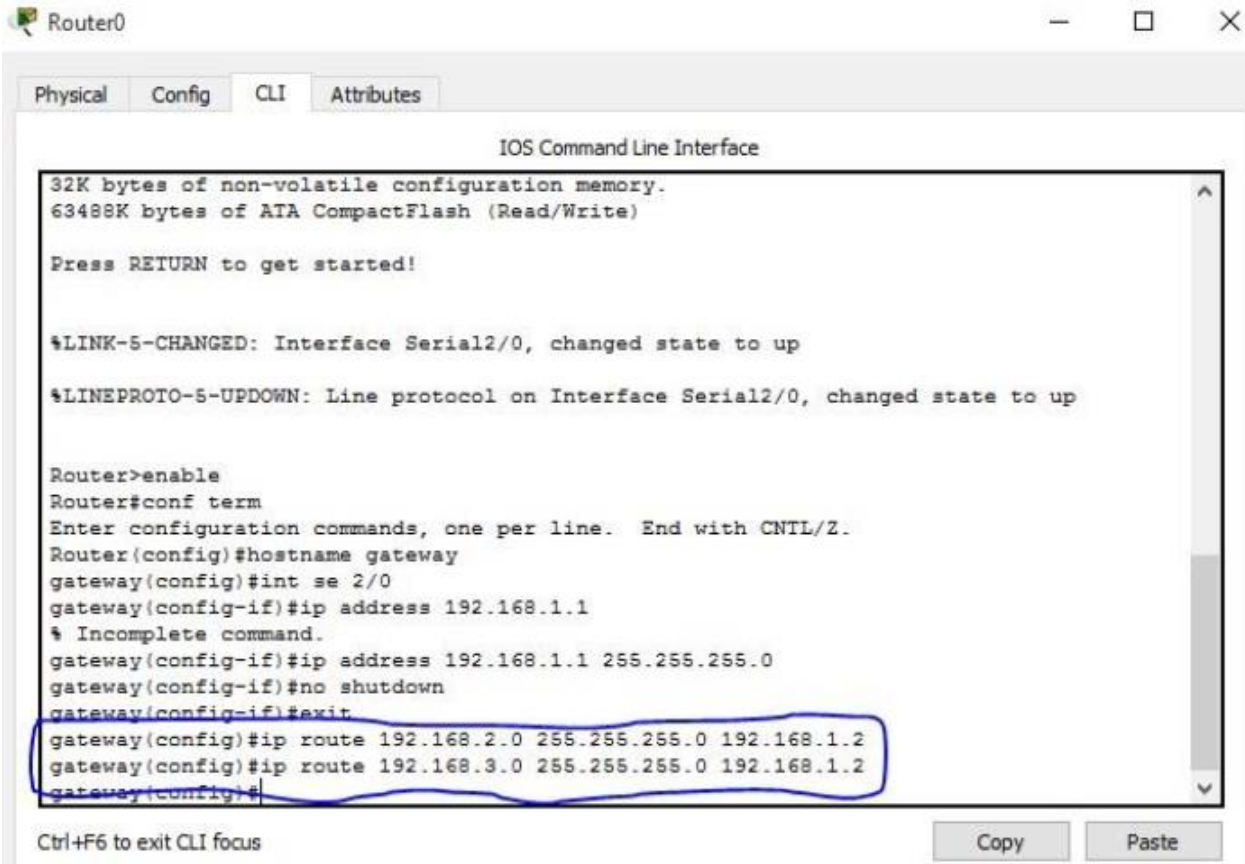
si(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

si(config-if)#

```

5. Melakukan routing pada
 - a. Router gateway



b. Router Jarkom

```
IOS Command Line Interface

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname jarkom
jarkom(config)#int se 2/0
jarkom(config-if)#ip address 192.168.1.2 255.255.255.0
jarkom(config-if)#no shutdown
jarkom(config-if)#int se 3/0
jarkom(config-if)#clock rate 2000000
jarkom(config-if)#ip address 192.168.2.1 255.255.255.0
jarkom(config-if)#no shutdown
jarkom(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

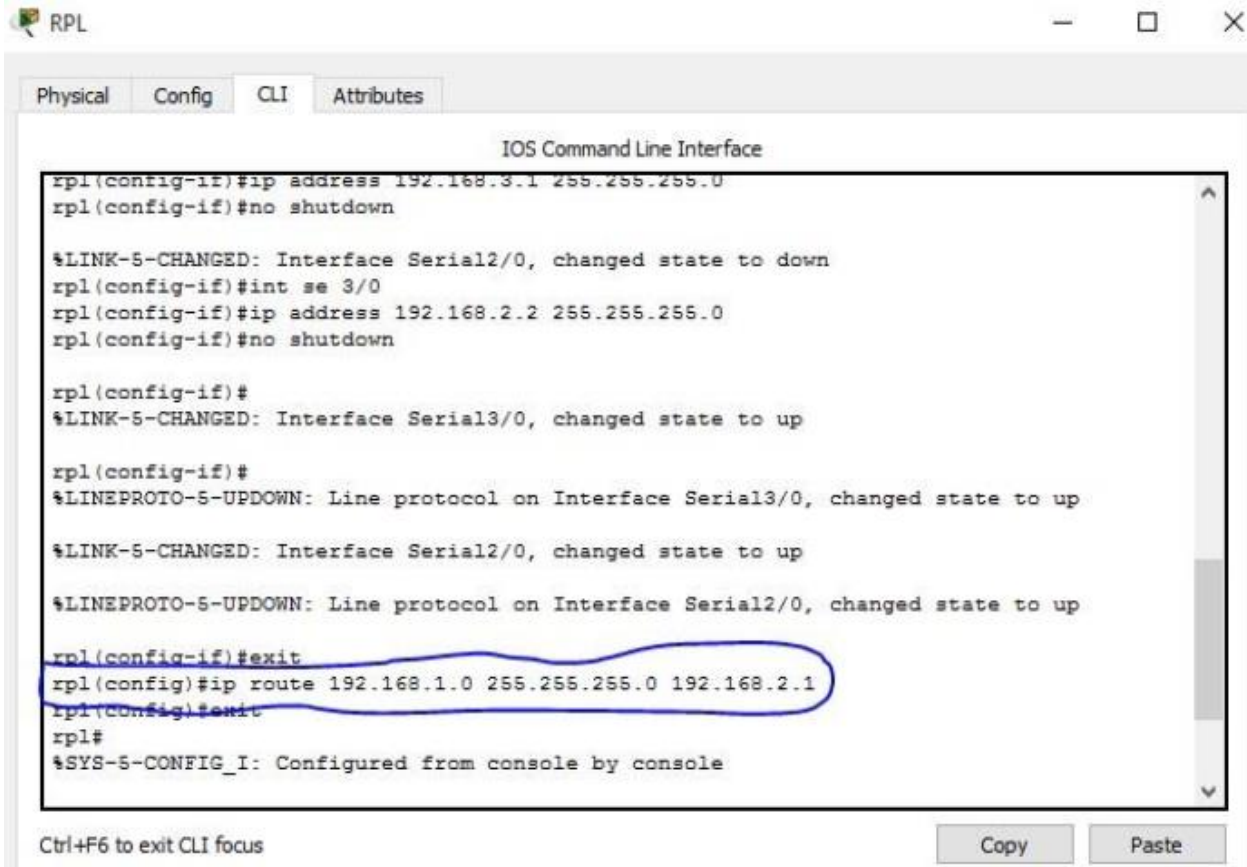
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

jarkom(config-if)#ip route 192.168.3.0 255.255.255.0 192.168.2.2
jarkom(config)#ip route 192.168.3.0 255.255.255.0 192.168.2.2
jarkom(config)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

c. Router RPL



The screenshot shows a window titled "RPL" with a tabbed interface. The "CLI" tab is selected, displaying the "IOS Command Line Interface". The interface shows a series of commands and system messages:

```
rpl(config-if)#ip address 192.168.3.1 255.255.255.0
rpl(config-if)#no shutdown

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
rpl(config-if)#int se 3/0
rpl(config-if)#ip address 192.168.2.2 255.255.255.0
rpl(config-if)#no shutdown

rpl(config-if)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

rpl(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

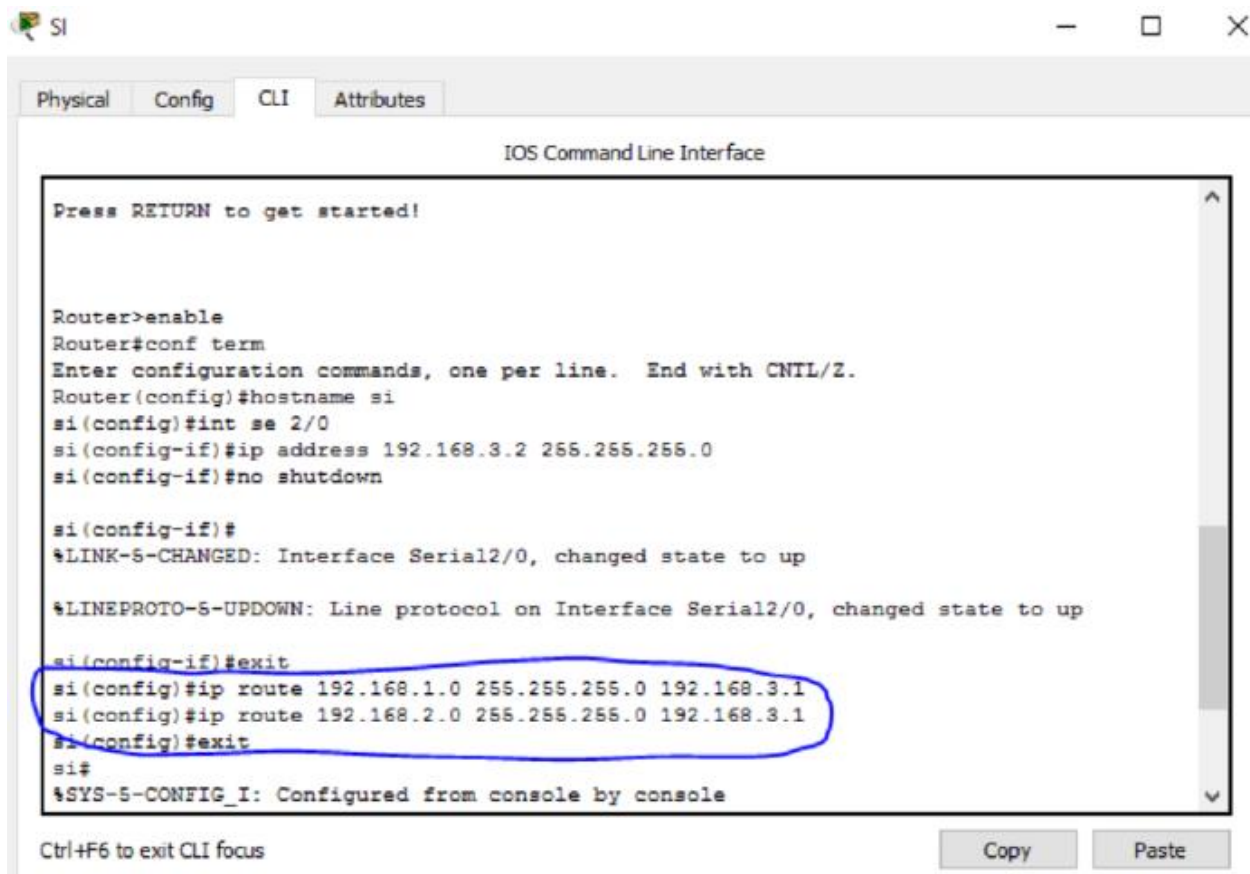
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

rpl(config-if)#exit
rpl(config)#ip route 192.168.1.0 255.255.255.0 192.168.2.1
rpl(config)#exit
rpl#
%SYS-5-CONFIG_I: Configured from console by console
```

Below the CLI window, there is a status bar with the text "Ctrl+F6 to exit CLI focus" on the left and two buttons, "Copy" and "Paste", on the right.

d. Router SI



```
Press RETURN to get started!

Router>enable
Router#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname si
si(config)#int se 2/0
si(config-if)#ip address 192.168.3.2 255.255.255.0
si(config-if)#no shutdown

si(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

si(config-if)#exit
si(config)#ip route 192.168.1.0 255.255.255.0 192.168.3.1
si(config)#ip route 192.168.2.0 255.255.255.0 192.168.3.1
si(config)#exit
si#
%SYS-5-CONFIG_I: Configured from console by console
```

Ctrl+F6 to exit CLI focus

Copy Paste

6. Uji konektivitas

Physical Config CLI Attributes

IOS Command Line Interface

```
gateway(config-if)#ip address 192.168.1.1 255.255.255.0
gateway(config-if)#no shutdown
gateway(config-if)#exit
gateway(config)#ip route 192.168.2.0 255.255.255.0 192.168.1.2
gateway(config)#ip route 192.168.3.0 255.255.255.0 192.168.1.2
gateway(config)#exit
gateway#
%SYS-5-CONFIG_I: Configured from console by console

gateway#ping 192.168.2.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.2, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 2/3/5 ms

gateway#ping 192.168.3.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.3.2, timeout is 2 seconds:
!!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 3/5/12 ms

gateway#
```

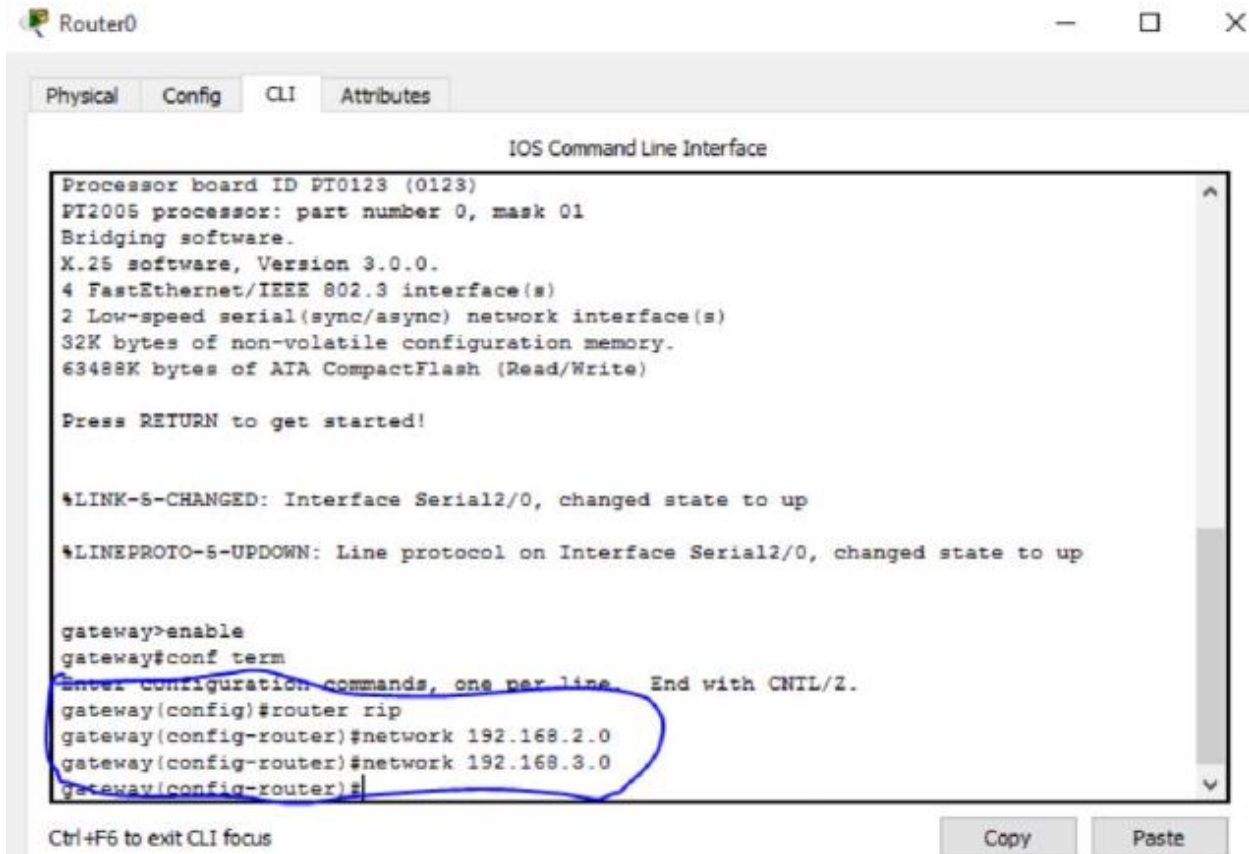
Ctrl+F6 to exit CLI focus

Copy

Paste

NOMOR 2 (DINAMIS)

1. Melakukan routing pada
 - a. Router gateway



```
Router0
Physical Config CLI Attributes
IOS Command Line Interface
Processor board ID PT0123 (0123)
PT2005 processor: part number 0, mask 01
Bridging software.
X.25 software, Version 3.0.0.
4 FastEthernet/IEEE 802.3 interface(s)
2 Low-speed serial(sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

Press RETURN to get started!

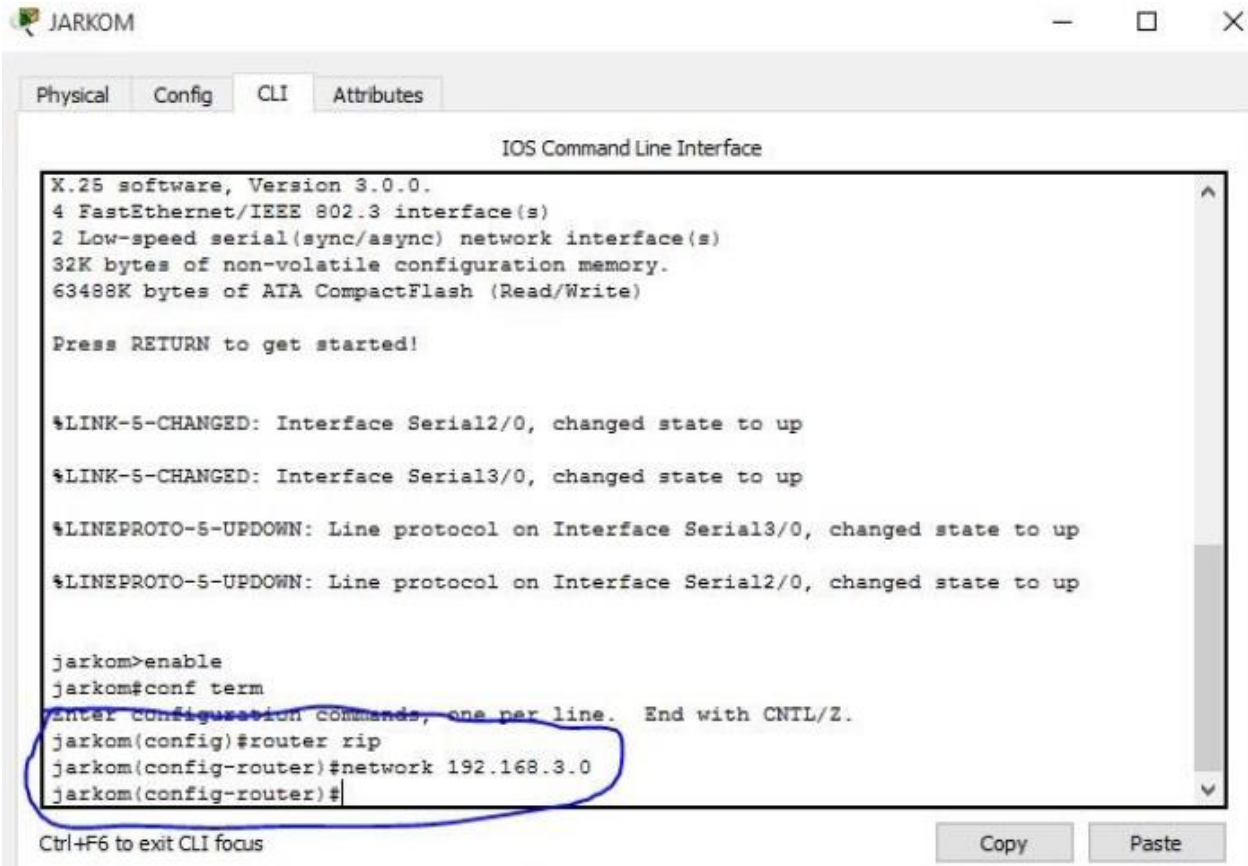
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

gateway>enable
gateway#conf term
Enter configuration commands, one per line. End with CNTL/Z.
gateway(config)#router rip
gateway(config-router)#network 192.168.2.0
gateway(config-router)#network 192.168.3.0
gateway(config-router)#
```

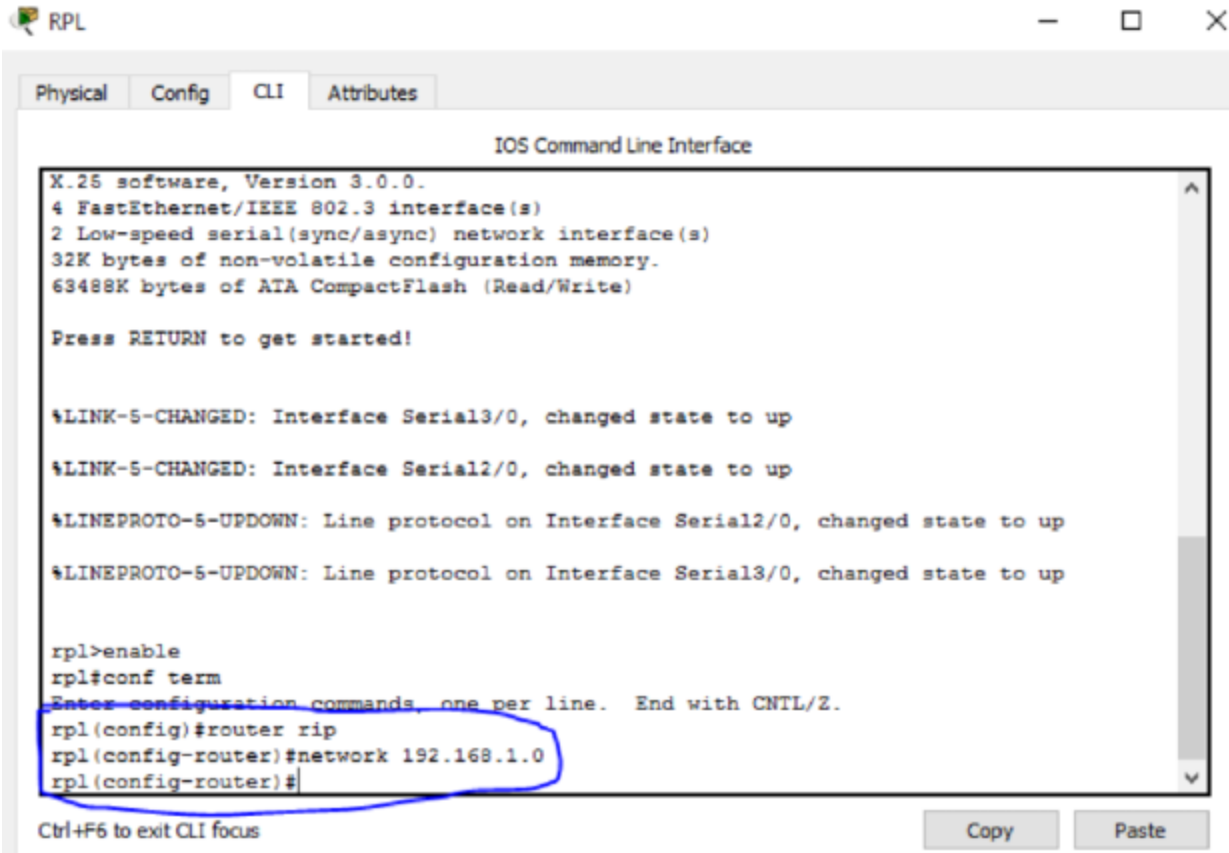
Ctrl+F6 to exit CLI focus

Copy Paste

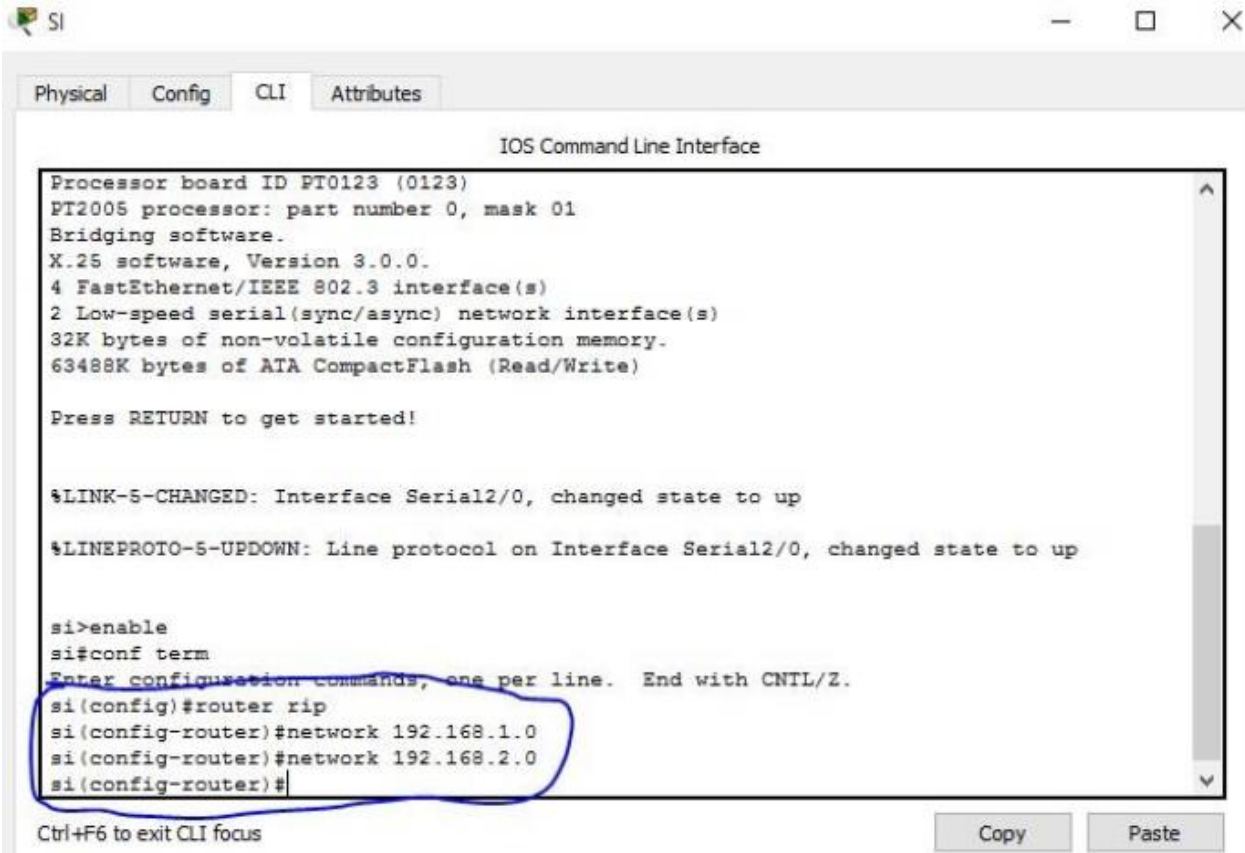
- b. Router Jarkom



c. Router RPL



d. Router SI



2. Uji Konektivitas

