

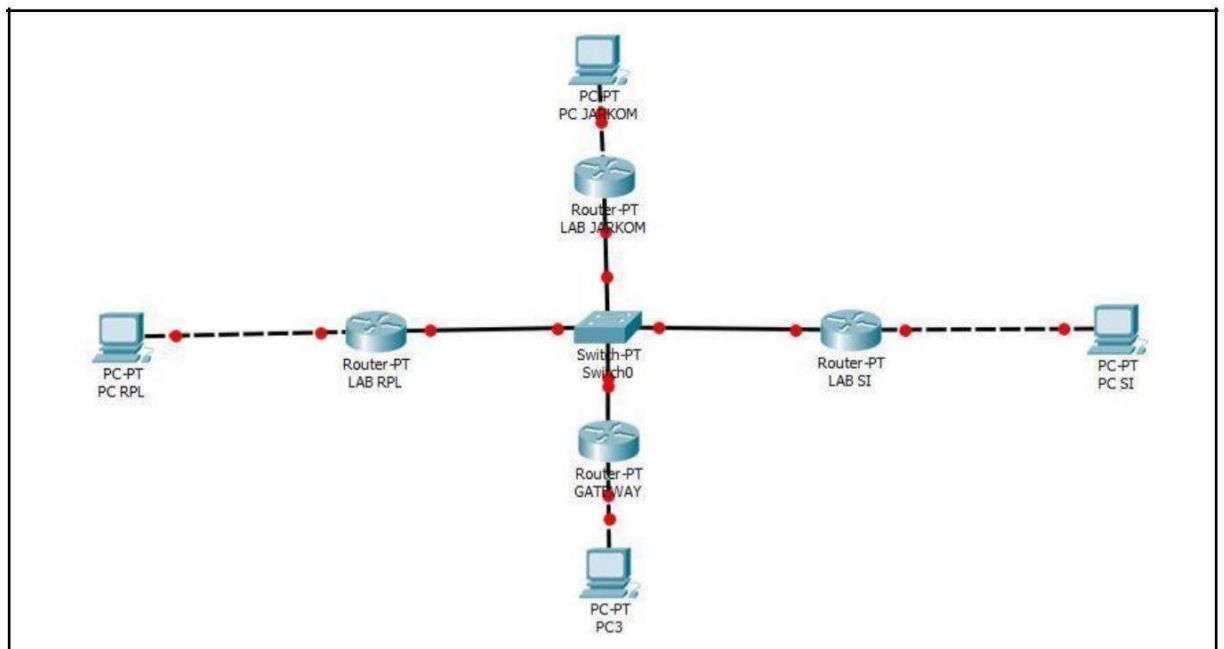
Nama : Aris Rahmat Fatoni

NIM : L200174081

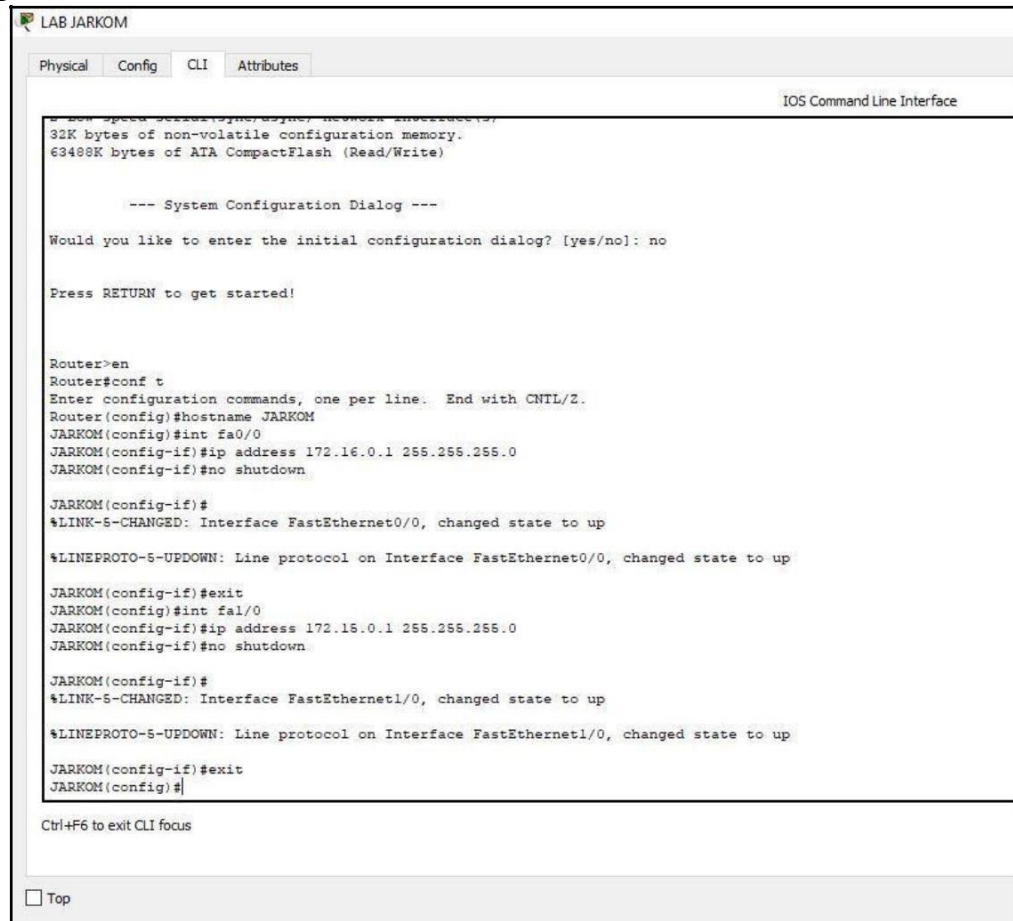
Kelas : D

Modul 11

1. Buat topologi seperti pada gambar.



2. Konfigurasi semua router a. Router Jarkom



The screenshot displays the 'LAB JARKOM' application window. It features a tabbed interface with 'Physical', 'Config', 'CLI', and 'Attributes' tabs. The 'CLI' tab is active, showing the 'IOS Command Line Interface'. The interface contains a text area with the following text:

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname JARKOM
JARKOM(config)#int fa0/0
JARKOM(config-if)#ip address 172.16.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

JARKOM(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

JARKOM(config-if)#exit
JARKOM(config)#int fa1/0
JARKOM(config-if)#ip address 172.15.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

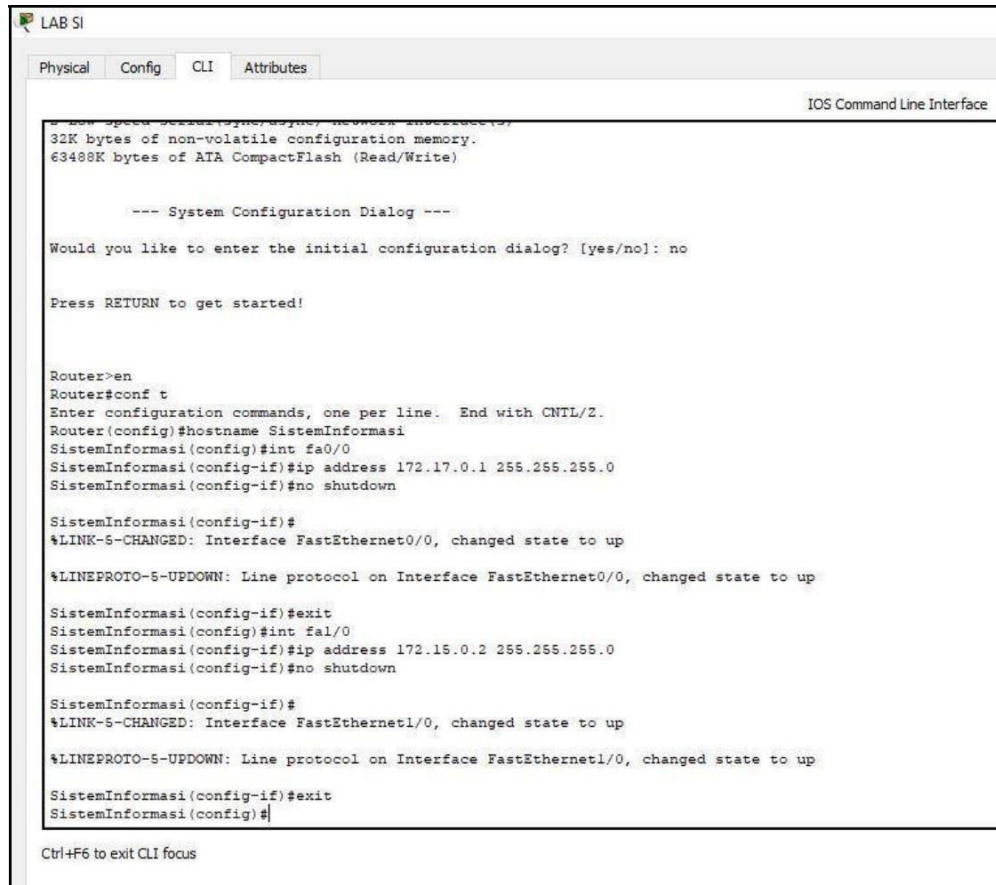
JARKOM(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

JARKOM(config-if)#exit
JARKOM(config)#
```

Below the text area, there is a status bar that reads 'Ctrl+F6 to exit CLI focus'. At the bottom left of the window, there is a checkbox labeled 'Top'.

b. Router SI



The screenshot shows a network simulator window titled 'LAB SI'. It has four tabs: 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The interface shows the following text:

```
Router>show speed serial0/0/0, serial0/0/1, network interface0/0/0
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int fa0/0
SistemInformasi(config-if)#ip address 172.17.0.1 255.255.255.0
SistemInformasi(config-if)#no shutdown

SistemInformasi(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

SistemInformasi(config-if)#exit
SistemInformasi(config)#int fa1/0
SistemInformasi(config-if)#ip address 172.15.0.2 255.255.255.0
SistemInformasi(config-if)#no shutdown

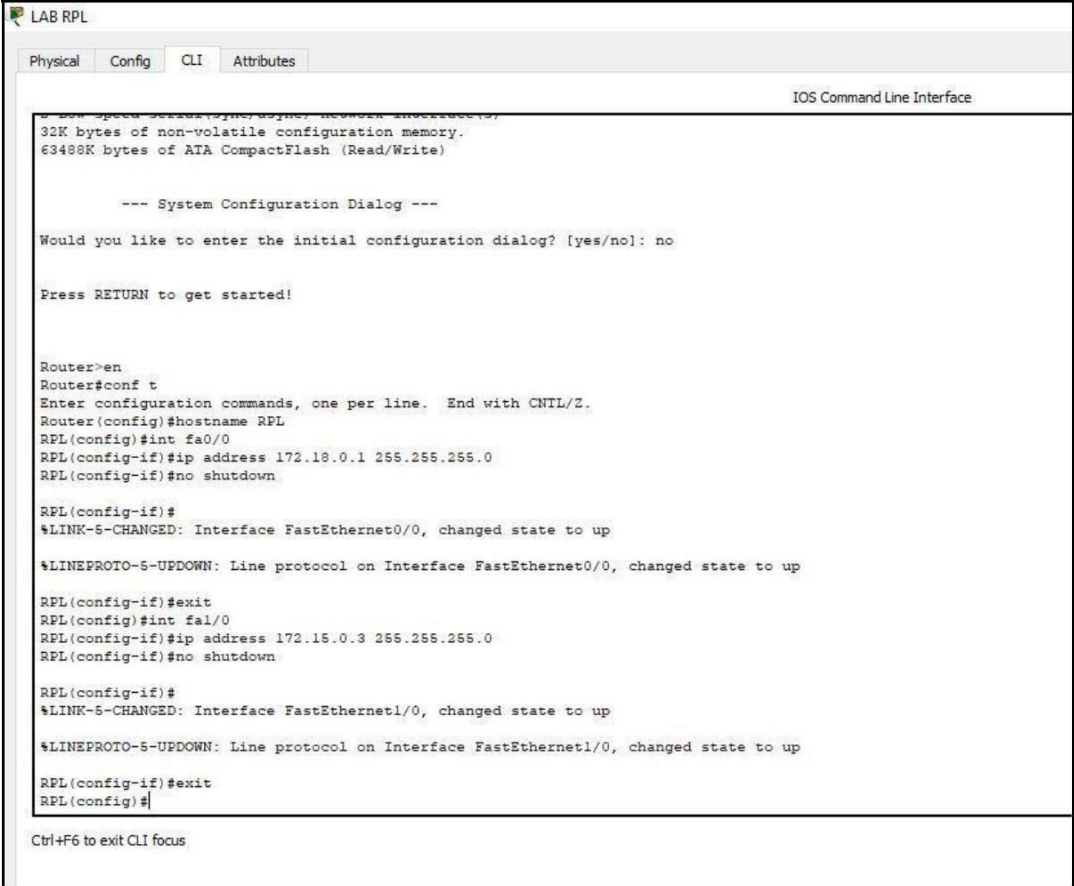
SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

SistemInformasi(config-if)#exit
SistemInformasi(config)#
```

At the bottom of the CLI window, it says 'Ctrl+F6 to exit CLI focus'.

c. Router RPL



```
LAB RPL
Physical Config CLI Attributes
IOS Command Line Interface

Router>show speed
Router>show sysinfo
Router>show network
Router>show memory
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNIL/Z.
Router(config)#hostname RPL
RPL(config)#int fa0/0
RPL(config-if)#ip address 172.18.0.1 255.255.255.0
RPL(config-if)#no shutdown

RPL(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

RPL(config-if)#exit
RPL(config)#int fa1/0
RPL(config-if)#ip address 172.15.0.3 255.255.255.0
RPL(config-if)#no shutdown

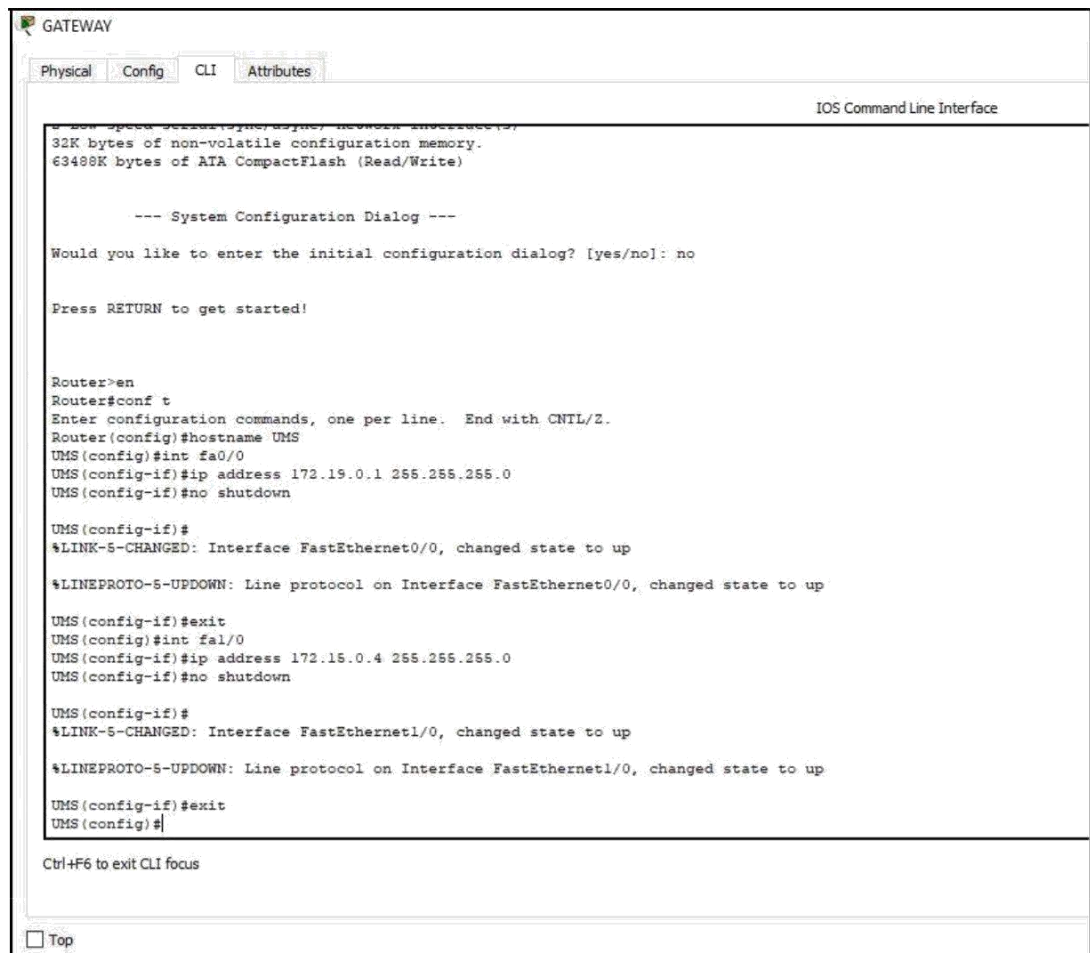
RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

RPL(config-if)#exit
RPL(config)#

Ctrl+F6 to exit CLI focus
```

d. Router UMS



3. Konfigurasi routing table pada 4 router

a. Router Jarkom

```

JARKOM(config)#router rip
JARKOM(config-router)#network 172.15.0.0
JARKOM(config-router)#network 172.16.0.0
^
% Invalid input detected at '^' marker.

JARKOM(config-router)#network 172.16.0.0
JARKOM(config-router)#network 172.17.0.0
JARKOM(config-router)#network 172.18.0.0
JARKOM(config-router)#network 172.19.0.0
JARKOM(config-router)#

```

b. Router SI

```

SistemInformasi(config)#router rip
SistemInformasi(config-router)#network 172.15.0.0
SistemInformasi(config-router)#network 172.16.0.0
SistemInformasi(config-router)#network 172.17.0.0
SistemInformasi(config-router)#network 172.18.0.0
SistemInformasi(config-router)#network 172.19.0.0
SistemInformasi(config-router)#

```

Ctrl+F6 to exit CLI focus

c. Router RPL

```
RPL(config)#router rip
RPL(config-router)#network 172.15.0.0
RPL(config-router)#network 172.16.0.0
RPL(config-router)#network 172.17.0.0
RPL(config-router)#network 172.18.0.0
RPL(config-router)#network 172.19.0.0
RPL(config-router)#
```

Ctrl+F6 to exit CLI focus

d. Router UMS

```
UMS(config)#router rip
UMS(config-router)#network 172.15.0.0
UMS(config-router)#network 172.16.0.0
UMS(config-router)#network 172.17.0.0
UMS(config-router)#network 172.18.0.0
UMS(config-router)#network 172.19.0.0
UMS(config-router)#
```

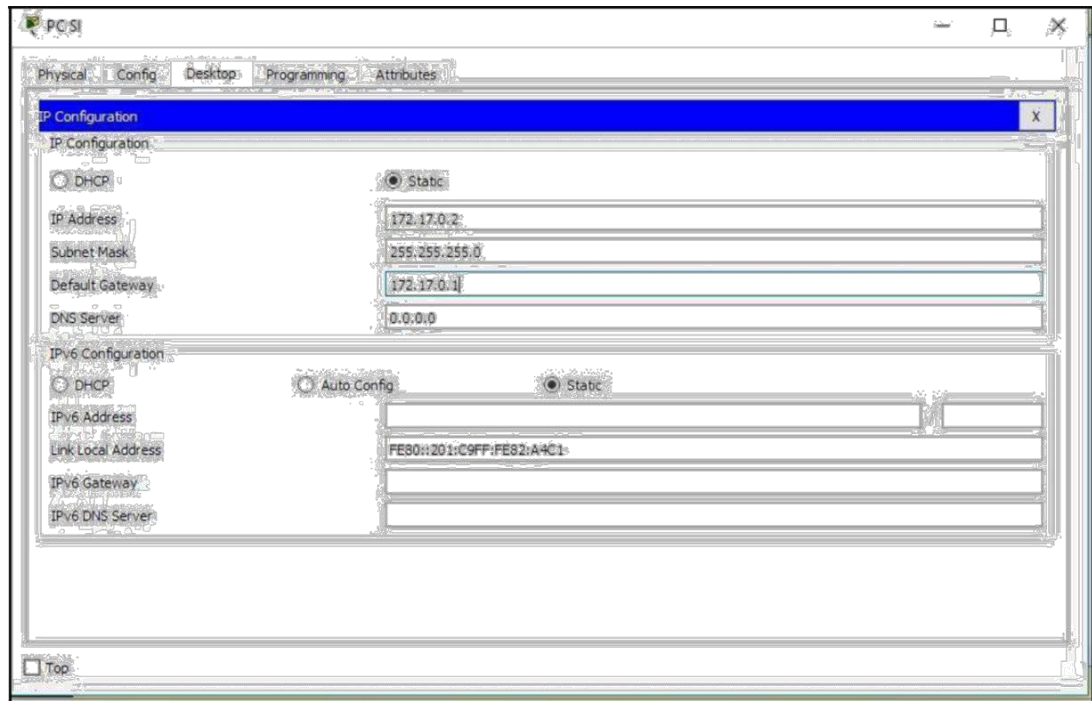
4. Konfigurasi IP pada masing- masing PC

a. PC Jarkom

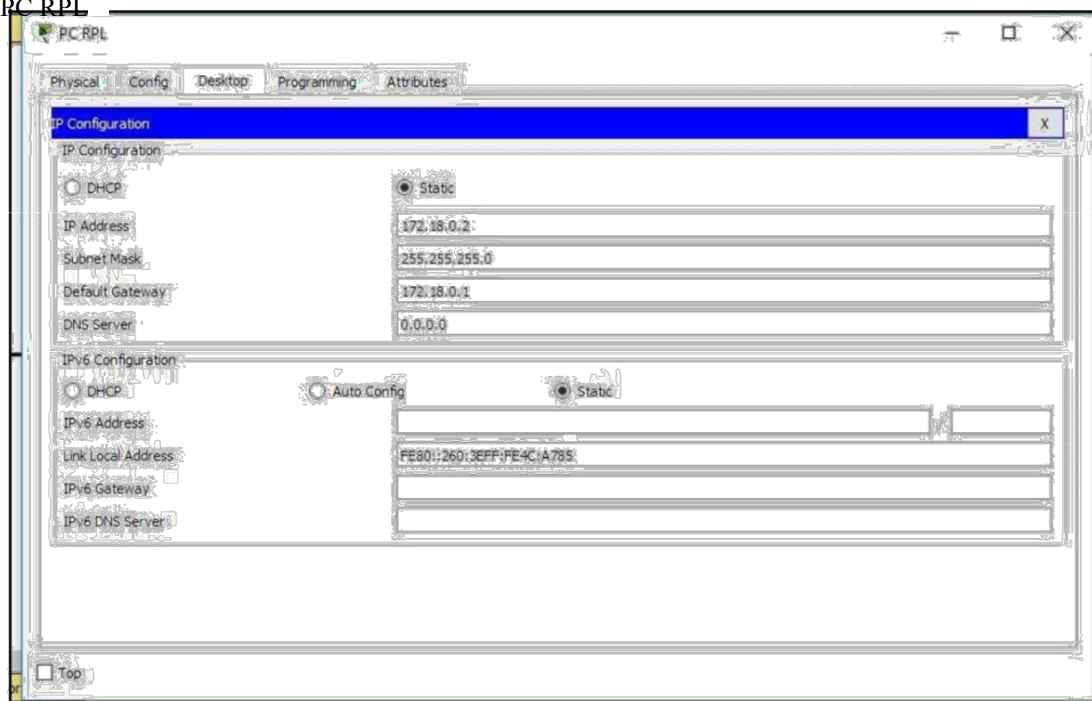
The screenshot shows the 'PC JARKOM' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing options for DHCP and Static IP. The Static IP option is selected. The IP Address is set to 172.16.0.2, Subnet Mask to 255.255.255.0, Default Gateway to 172.16.0.1, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section is also visible, with options for DHCP, Auto Config, and Static. The Static option is selected, and the IPv6 Address is set to FE80::2D0:D3FF:FE30:5C09. The Link Local Address is set to FE80::2D0:D3FF:FE30:5C09. The IPv6 Gateway and IPv6 DNS Server fields are empty. A 'Top' button is located at the bottom left of the window.

Field	Value
IP Address	172.16.0.2
Subnet Mask	255.255.255.0
Default Gateway	172.16.0.1
DNS Server	0.0.0.0
IPv6 Address	FE80::2D0:D3FF:FE30:5C09
Link Local Address	FE80::2D0:D3FF:FE30:5C09
IPv6 Gateway	
IPv6 DNS Server	

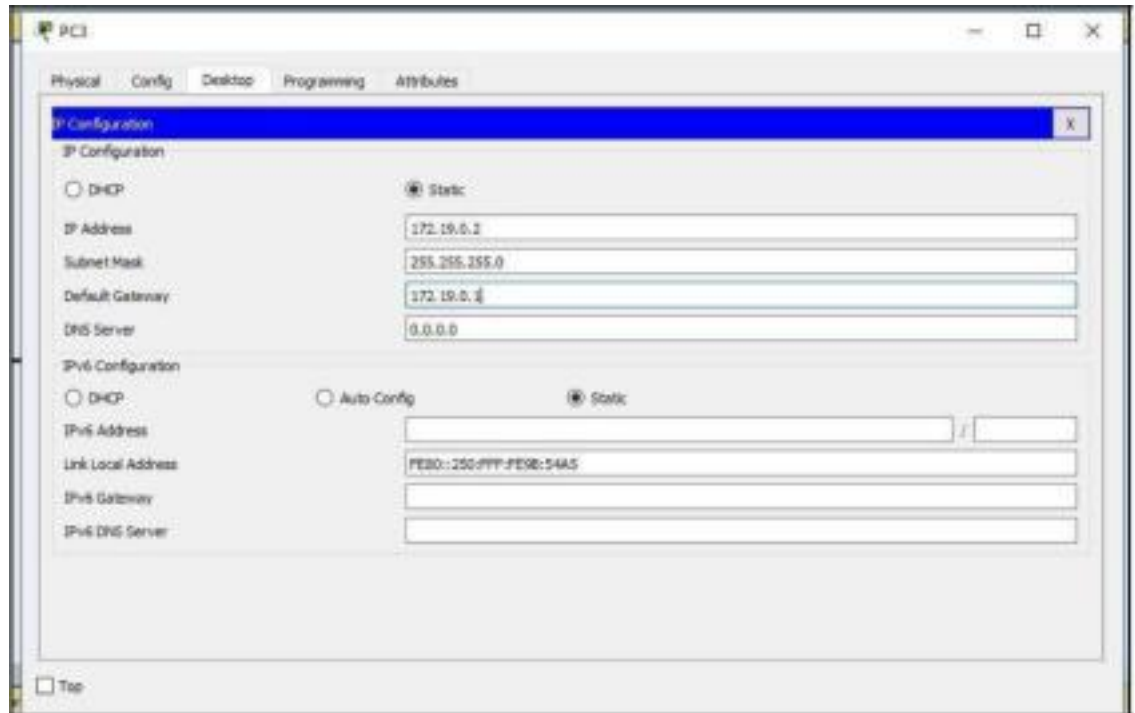
b. PC SI



c. PC RPL



d. PC UMS



2. Lakukan pengujian ICMP request(ping) untuk test koneksi a.
PC UMS ke PC Jarkom

```
C:\>ping 172.16.0.2

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=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms 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 = 1ms, Maximum = 12ms, Average = 9ms
```

b. PC UMS ke PC SI

```
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=15ms TTL=126
Reply from 172.18.0.2: bytes=32 time=19ms TTL=126
Reply from 172.18.0.2: bytes=32 time=12ms 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 = 19ms, Average = 11ms

C:\>
```

c. PC UMS ke PC RPL


```
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=19ms TTL=126
```

```
Reply from 172.17.0.2: bytes=32 time=10ms 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 = 19ms, Average = 10ms
```