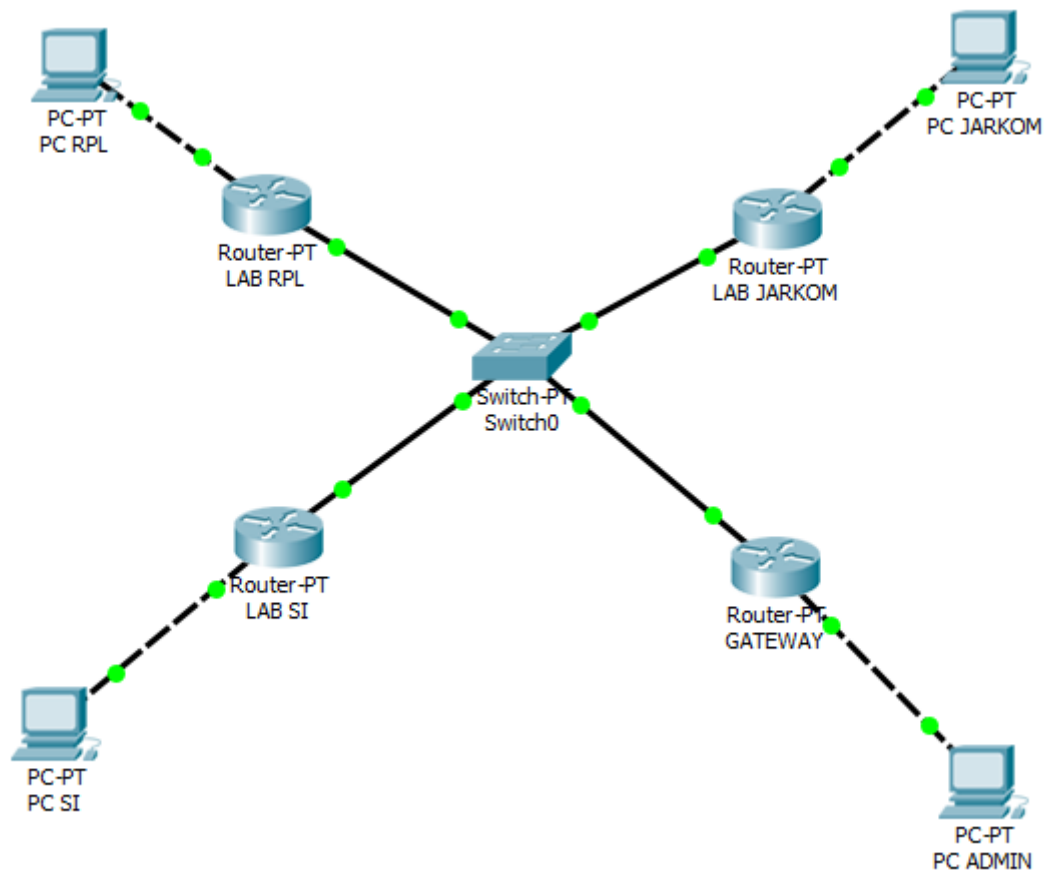NAMA : WINDI SAPUTRI

KELAS : C
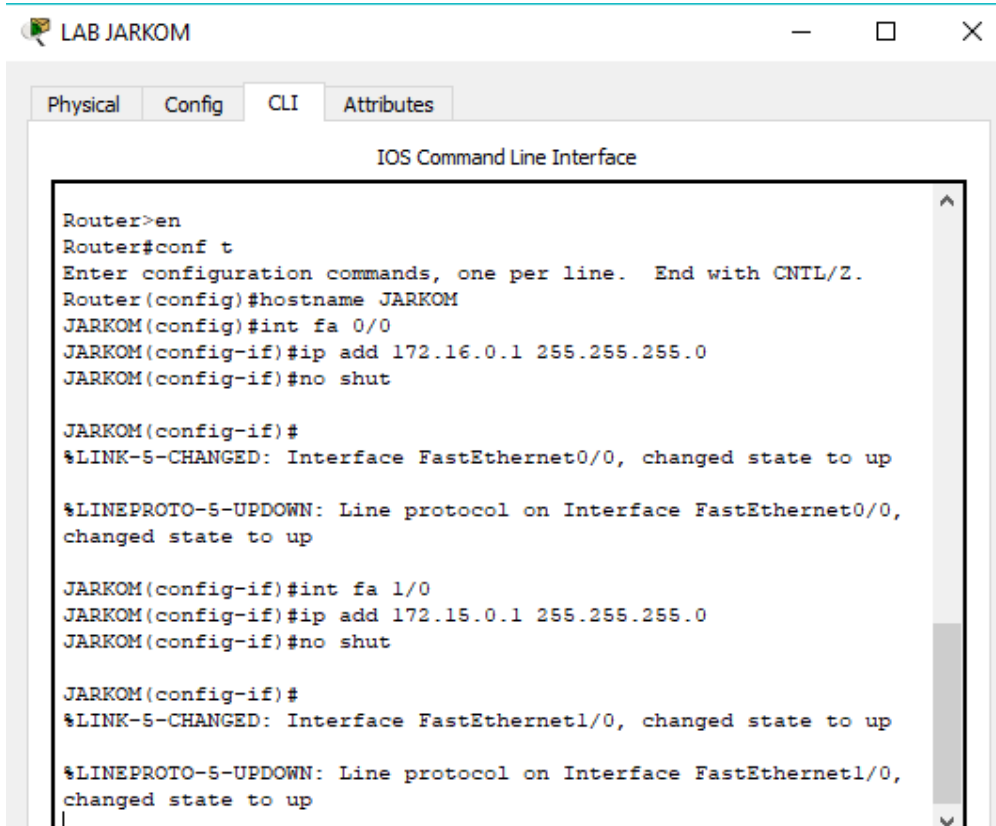
NIM : L200170115

TUGAS MODUL 11

1. DESAIN JARINGAN

2. KONFIGURASI ROUTER JARKOM


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

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)#int fa 1/0
JARKOM(config-if)#ip add 172.15.0.1 255.255.255.0
JARKOM(config-if)#no shut

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
```
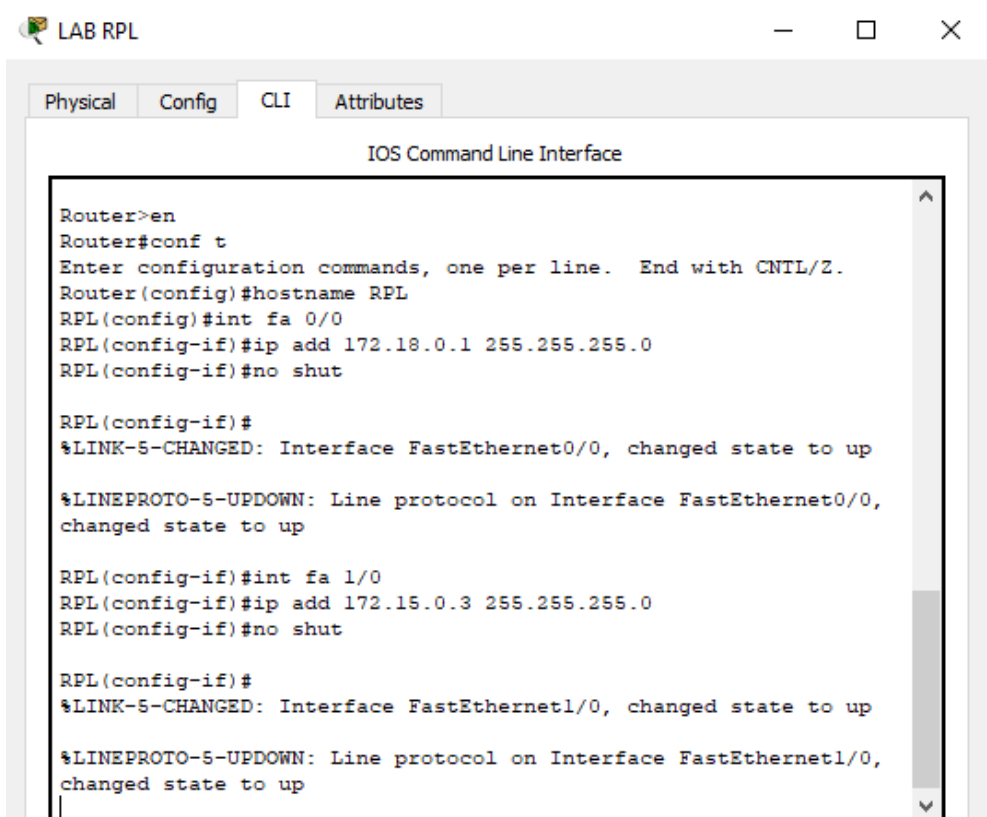
3. KONFIGURASI ROUTER RPL


```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname RPL
RPL(config)#int fa 0/0
RPL(config-if)#ip add 172.18.0.1 255.255.255.0
RPL(config-if)#no shut

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)#int fa 1/0
RPL(config-if)#ip add 172.15.0.3 255.255.255.0
RPL(config-if)#no shut

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
```
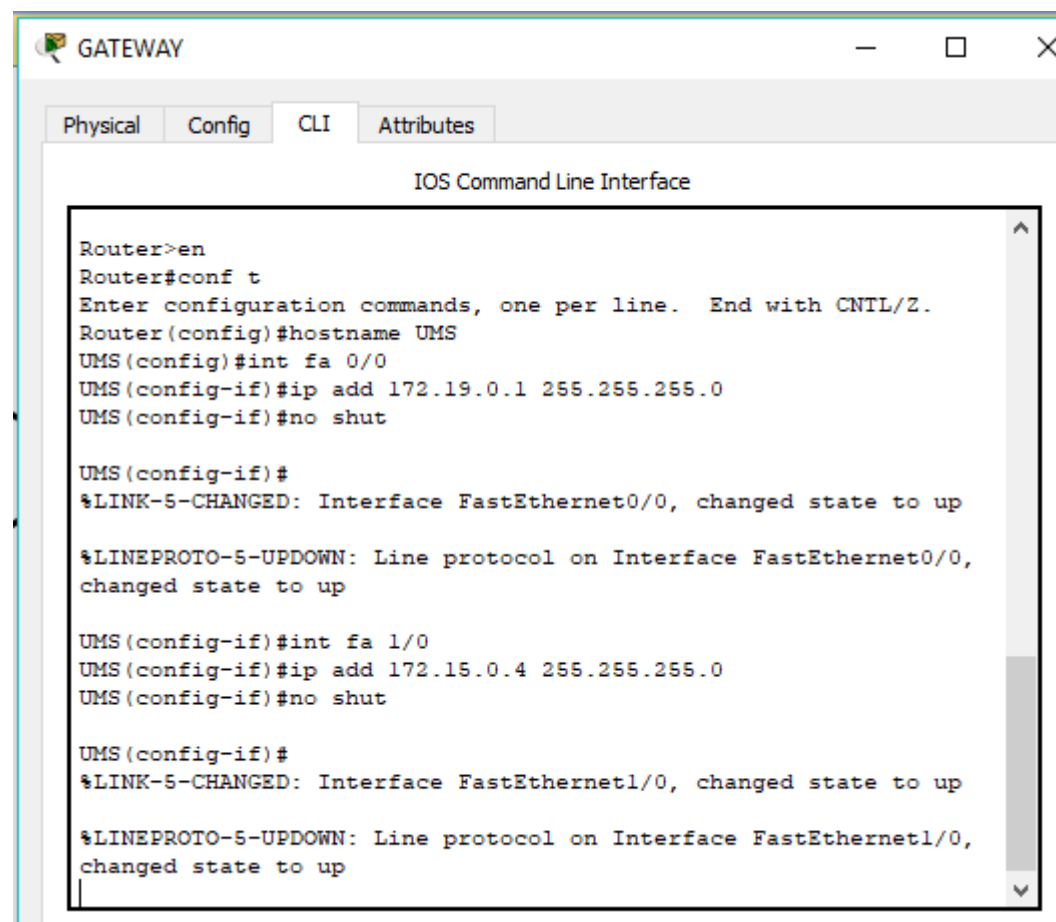
4. KONFIGURASI ROUTER SI

```
SI(config-if)#int fa 0/0
SI(config-if)#ip add 172.17.0.1 255.255.255.0
SI(config-if)#no shut
SI(config-if)#int fa 1/0
SI(config-if)#ip add 172.15.0.2 255.255.255.0
SI(config-if)#no shut

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
```

5. KONFIGURASI ROUTER GATEWAY

GATEWAY — □ ×

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Router>en
Router#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname UMS
UMS(config)#int fa 0/0
UMS(config-if)#ip add 172.19.0.1 255.255.255.0
UMS(config-if)#no shut

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 add 172.15.0.4 255.255.255.0
UMS(config-if)#no shut

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
```

6. KONFIGURASI PC JARKOM

PC JARKOM

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

IP Configuration

- ○ DHCP ● Static
- IP Address: 172.16.0.2
- Subnet Mask: 255.255.255.0
- Default Gateway: 172.16.0.1
- DNS Server: 0.0.0.0

7. KONFIGURASI PC RPL

PC RPL

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

IP Configuration

- ○ DHCP ● Static
- IP Address: 172.18.0.2
- Subnet Mask: 255.255.255.0
- Default Gateway: 172.18.0.1
- DNS Server: 0.0.0.0

8. KONFIGURASI PC SI

PC SI

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

IP Configuration

- ○ DHCP ● Static
- IP Address: 172.17.0.2
- Subnet Mask: 255.255.255.0
- Default Gateway: 172.17.0.1
- DNS Server: 0.0.0.0

9. KONFIGURASI PCADMIN

```
PC ADMIN

Physical    Config    Desktop    Programming    Attributes

IP Configuration
  IP Configuration
    ○ DHCP                        ◉ Static
    IP Address              172.19.0.2
    Subnet Mask             255.255.255.0
    Default Gateway         172.19.0.1
    DNS Server             0.0.0.0
```
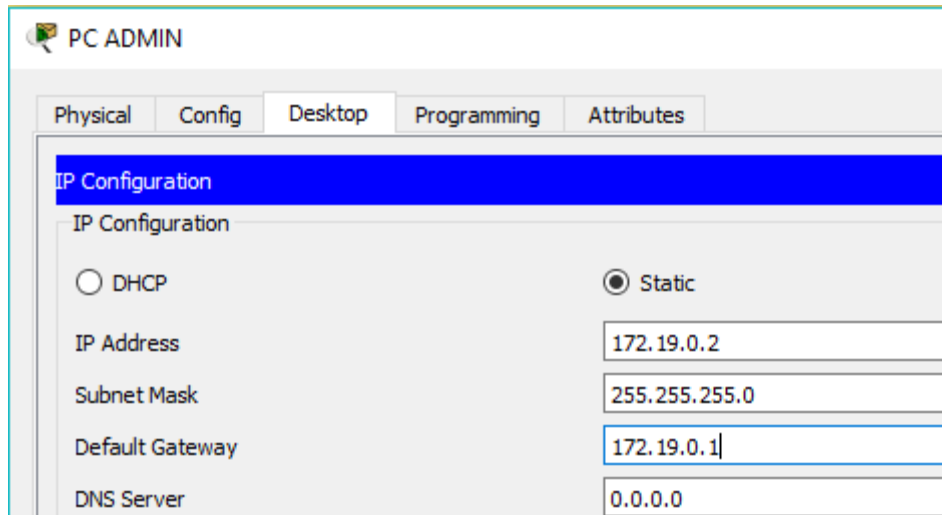
10. ROUTING – ROUTER JARKOM

```
JARKOM>en
JARKOM#conf t
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)#
```

11. ROUTING – ROUTER RPL

```
RPL>en
RPL#conf t
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)#
```
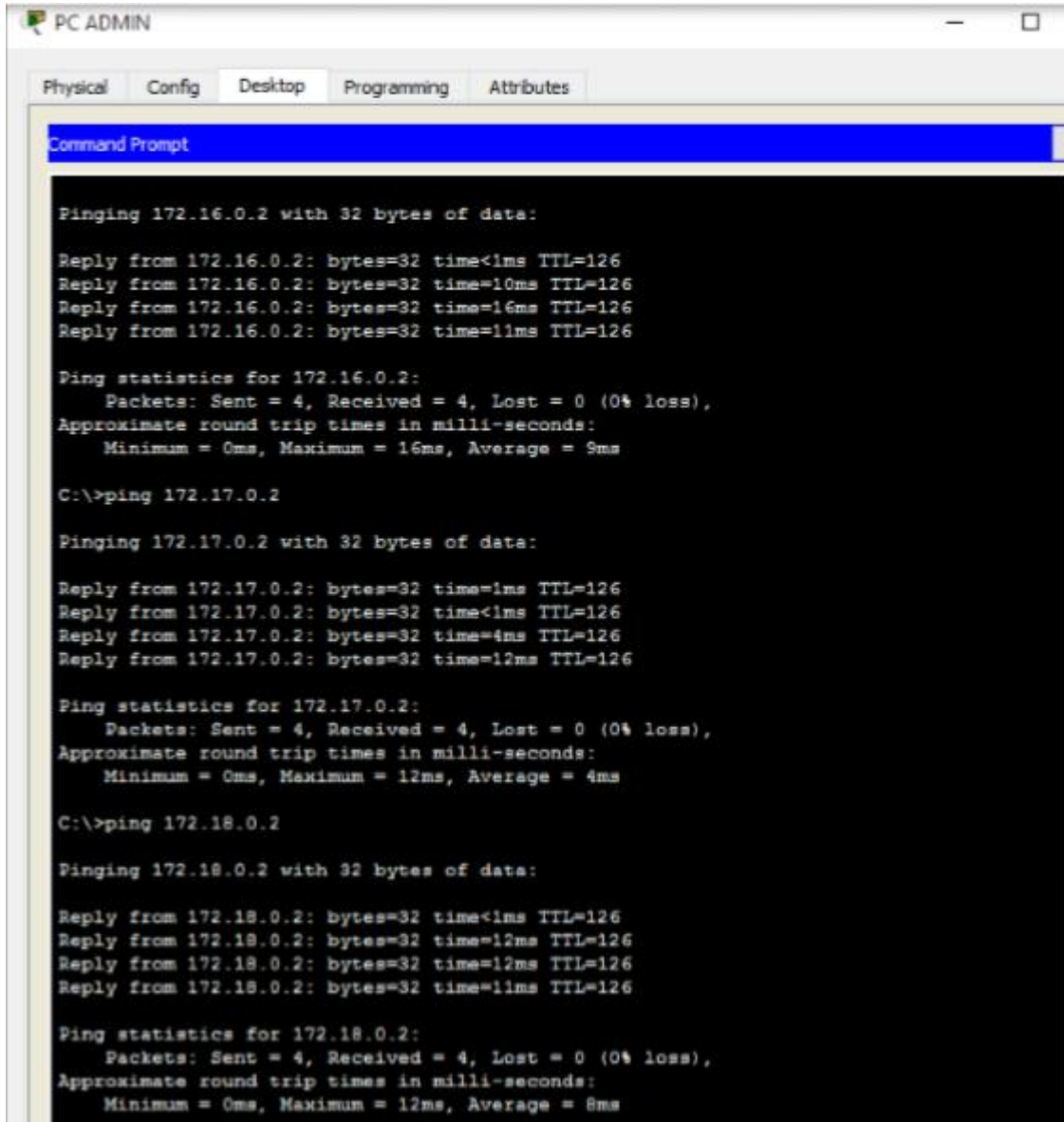
12. ROUTING – ROUTER SI

```
SI>en
SI#conf t
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)#
```

13. ROUTING – ROUTER GATEWAY

```
UMS>en
UMS#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
UMS(config)#ip route 172.16.0.0 255.255.255.0 172.15.0.1
UMS(config)#ip route 172.18.0.0 255.255.255.0 172.15.0.3
UMS(config)#ip route 172.17.0.0 255.255.255.0 172.15.0.2
UMS(config)#
```

14. MELAKUKAN PING


```
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
```

NOMER 2 – STATIC

1. DESAIN JARINGAN

2. KONFIGURASI ROUTER GATEWAY


```
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 GATEWAY
GATEWAY(config)#int se 2/0
GATEWAY(config-if)#ip add 192.168.1.1
% Incomplete command.
GATEWAY(config-if)#ip add 192.168.1.1 255.255.255.0
GATEWAY(config-if)#no shut
```
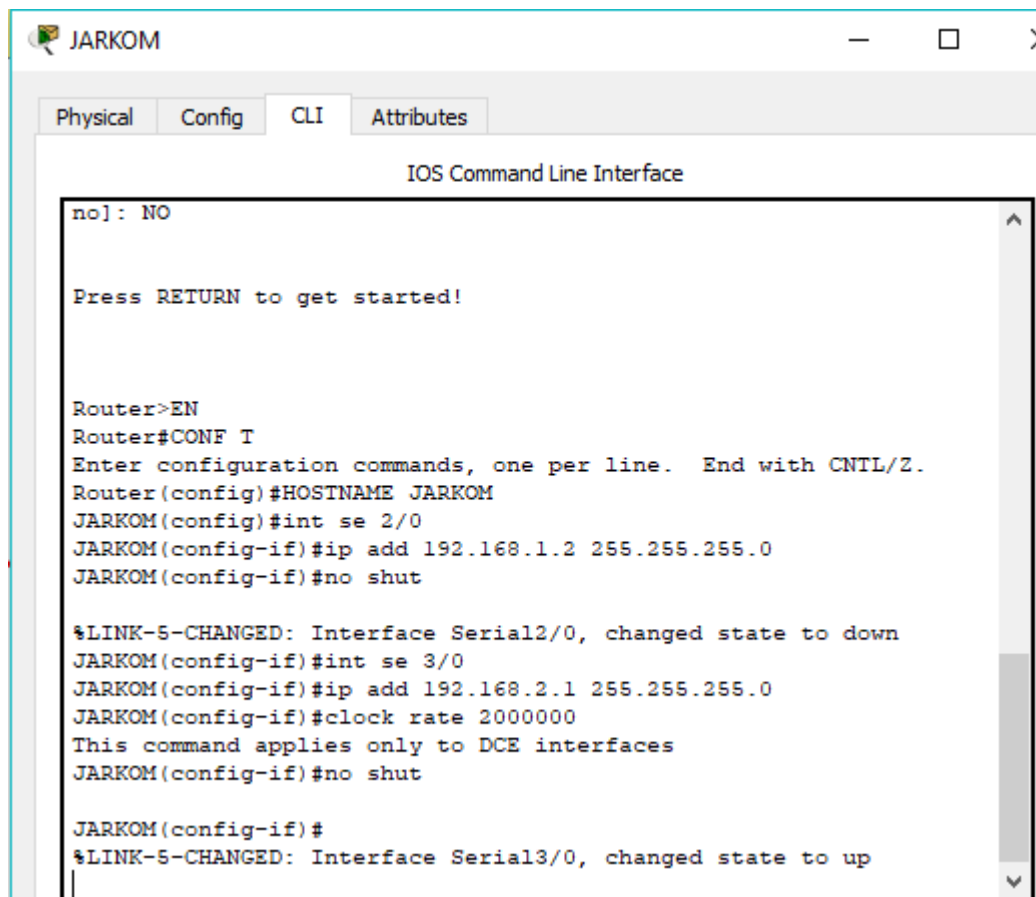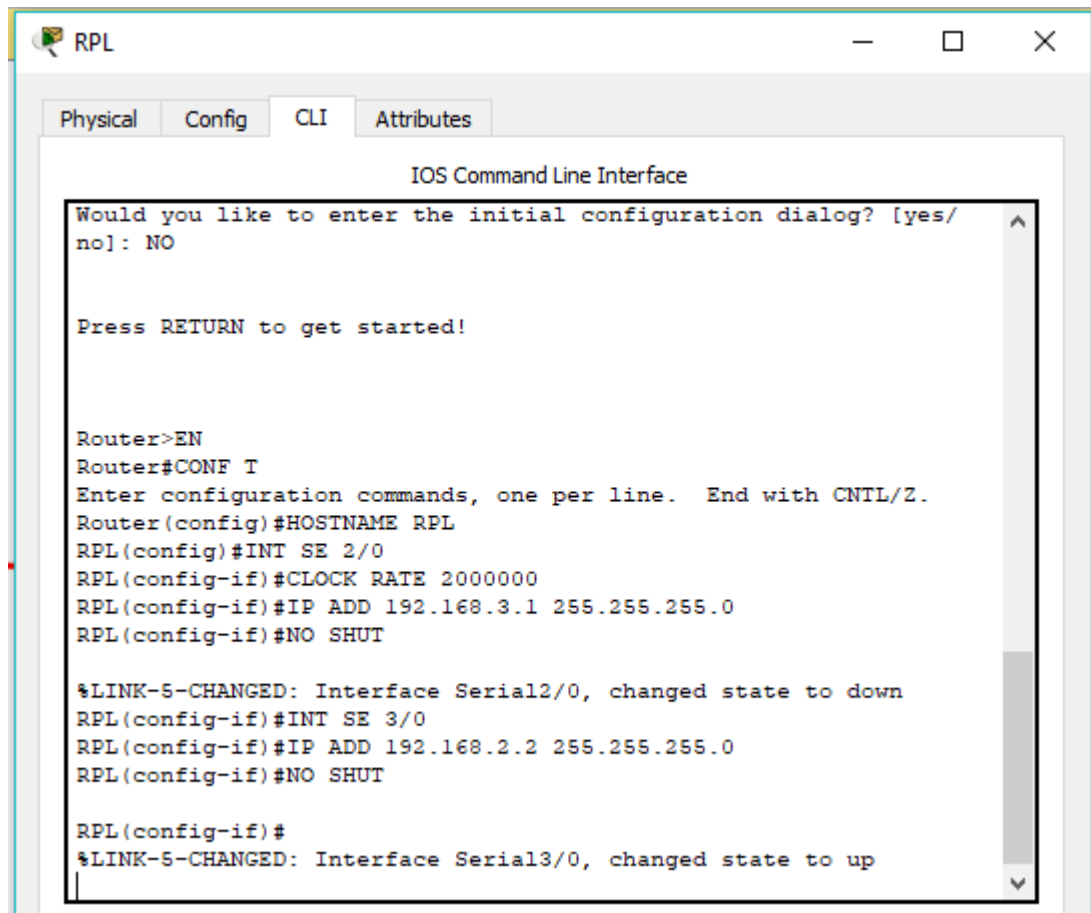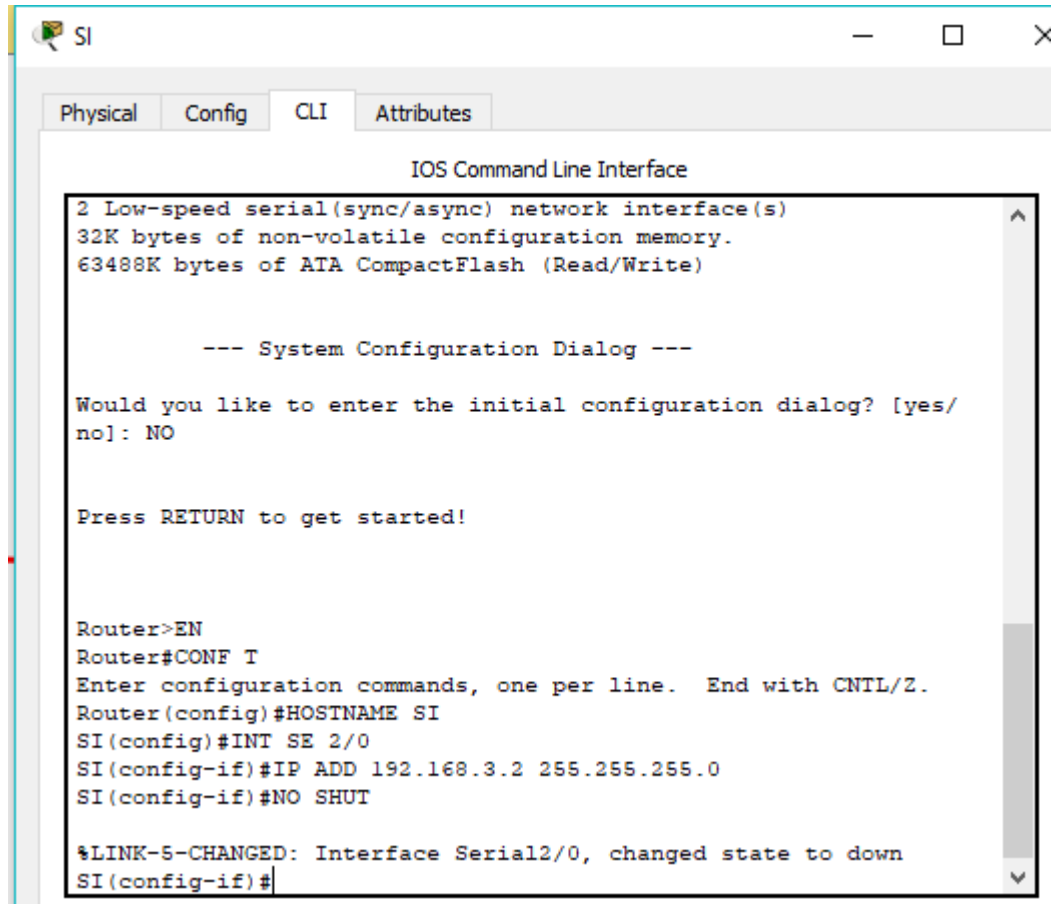
3. KONFIGURASI ROUTER JARKOM

4. KONFIGURASI ROUTER RPL

5. KONFIGURASI ROUTER SI

```
SI                                                          —    □    ×

Physical    Config    CLI    Attributes

                    IOS Command Line Interface

2 Low-speed serial(sync/async) network interface(s)
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 SI
SI(config)#INT SE 2/0
SI(config-if)#IP ADD 192.168.3.2 255.255.255.0
SI(config-if)#NO SHUT

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
SI(config-if)#
```

6. ROUTING – ROUTER GATEWAY

```
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)#
```

7. ROUTING – ROUTER JARKOM

```
JARKOM(config)#ip route 192.168.3.0 255.255.255.0 192.168.2.2
JARKOM(config)#
```

8. ROUTING – ROUTER RPL

```
RPL(config)#ip route 192.168.1.0 255.255.255.0 192.168.2.1
RPL(config)#
```

9. ROUTING – ROUTER SI

```
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)#
```

10. UJI KONEJTIVITAS

```
GATEWAY#PING 192.168.2.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2
seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max =
1/4/13 ms
```

NOMOR 2 – DINAMIS (RIP)

1. DESAIN JARINGAN

```
GATEWAY>en
GATEWAY#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
GATEWAY(config)#router rip
GATEWAY(config-router)#net 192.168.2.0
GATEWAY(config-router)#net 192.168.3.0
```

2. ROUTING – ROUTE JARKOM

```
JARKOM(config)#router rip
JARKOM(config-router)#net 192.168.1.0
JARKOM(config-router)#
```

3. ROUTING – ROUTE RPL

```
RPL(config)#ROUTER RIP
RPL(config-router)#NET 192.168.1.0
RPL(config-router)#
```

4. ROUTING – ROUTE SI

```
SI(config)#ROUTER RIP
SI(config-router)#NET 192.168.1.0
SI(config-router)#NET 192.168.2.0
SI(config-router)#
```

5. UJI KONEKTIVITAS

```
%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 = 2/5/10 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 = 5/9/12 ms

gateway#ping 192.168.2.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 192.168.2.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/6 ms
```