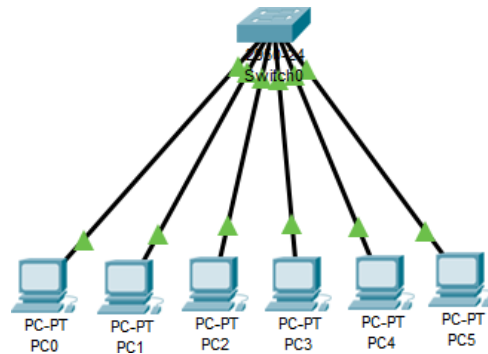


NAMA : Angga Pratama
NIM : L200180109
KELAS : C

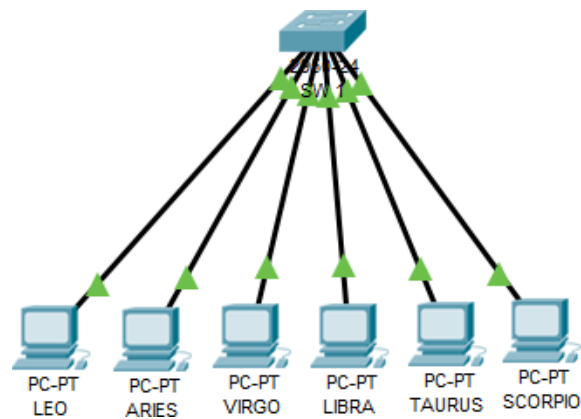
MODUL 4

KEGIATAN 1.TOPOLOGI 1

- A. Menggunakan packet tracker buat topologi berikut ini dengan menggunakan switch



- B. Beri nama masing-masing perangkat dengan SW1(switch), Leo(PC0), Aries(PC1), Virgo(PC2), Pisces(PC3), Taurus(PC4), dan scorpio(PC5)



C. Konfigurasi masing-masing PC dengan nama dan alamat IP

➤ Leo = 172.21.1.1/24

The screenshot shows the configuration window for a PC named 'LEO'. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.1.1, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section has 'Static' selected, with empty fields for IPv6 Address, Link Local Address (pre-filled with FE80::250:FFF:FE7E:923B), IPv6 Gateway, and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'MD5' selected for Authentication and empty fields for Username and Password. A 'Top' button is at the bottom left.

| Field | Value |
|--------------------|-------------------------|
| IP Address | 172.21.1.1 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::250:FFF:FE7E:923B |
| IPv6 Gateway | |
| IPv6 DNS Server | |

➤ Aries = 172.21.1.2/24

The screenshot shows the configuration window for a PC named 'ARIES'. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.1.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section has 'Static' selected, with empty fields for IPv6 Address, Link Local Address (pre-filled with FE80::2D0:BAFF:FE4B:327C), IPv6 Gateway, and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'MD5' selected for Authentication and empty fields for Username and Password. A 'Top' button is at the bottom left.

| Field | Value |
|--------------------|--------------------------|
| IP Address | 172.21.1.2 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::2D0:BAFF:FE4B:327C |
| IPv6 Gateway | |
| IPv6 DNS Server | |

➤ Virgo = 172.21.1.3/24

The screenshot shows the VIRGO network configuration window with the 'Desktop' tab selected. The configuration is as follows:

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.1.3 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Configuration | Static |
| IPv6 Address | |
| Link Local Address | FE80::20A:F3FF:FE52:B32A |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| 802.1X | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MDS |
| Username | |
| Password | |

➤ Libra = 172.21.1.4/24

The screenshot shows the LIBRA network configuration window with the 'Desktop' tab selected. The configuration is as follows:

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.1.4 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Configuration | Static |
| IPv6 Address | |
| Link Local Address | FE80::210:11FF:FE14:BE8E |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| 802.1X | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MDS |
| Username | |
| Password | |

➤ Taurus = 172.21.1.5/24

The screenshot shows the TAURUS network configuration window with the 'Desktop' tab selected. The configuration is as follows:

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.1.5 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Configuration | Static |
| IPv6 Address | |
| Link Local Address | FE80::2E0:A3FF:FED0:C712 |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| 802.1X | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MDS |
| Username | |
| Password | |

➤ Scorpio = 172.21.1.6/24

The screenshot shows the SCORPIO network configuration window with the 'Desktop' tab selected. It contains fields for DHCP and Static IP configuration, IPv6 configuration, and 802.1X security settings.

| Section | Option | Value |
|--------------------|--|--------------------------|
| DHCP | <input type="radio"/> | |
| | IP Address | 172.21.1.6 |
| | Subnet Mask | 255.255.0.0 |
| | Default Gateway | 0.0.0.0 |
| | DNS Server | 0.0.0.0 |
| IPv6 Configuration | <input type="radio"/> DHCP | |
| | <input checked="" type="radio"/> Static | |
| | IPv6 Address | |
| | Link Local Address | FE80::20C:FFFF:FE11:8175 |
| | IPv6 Gateway | |
| 802.1X | <input type="checkbox"/> Use 802.1X Security | |
| | Authentication | MDS |
| | Username | |
| | Password | |

D. Konfigurasi pada switch dengan mode user atau mode privileged, buat 3 VLAN dengan nama zodiak1, zodiak2, dan zodiak3.

The screenshot shows the SW 1 network configuration window with the 'CLI' tab selected. It displays the IOS Command Line Interface with a series of commands to configure three VLANs named zodiak1, zodiak2, and zodiak3.

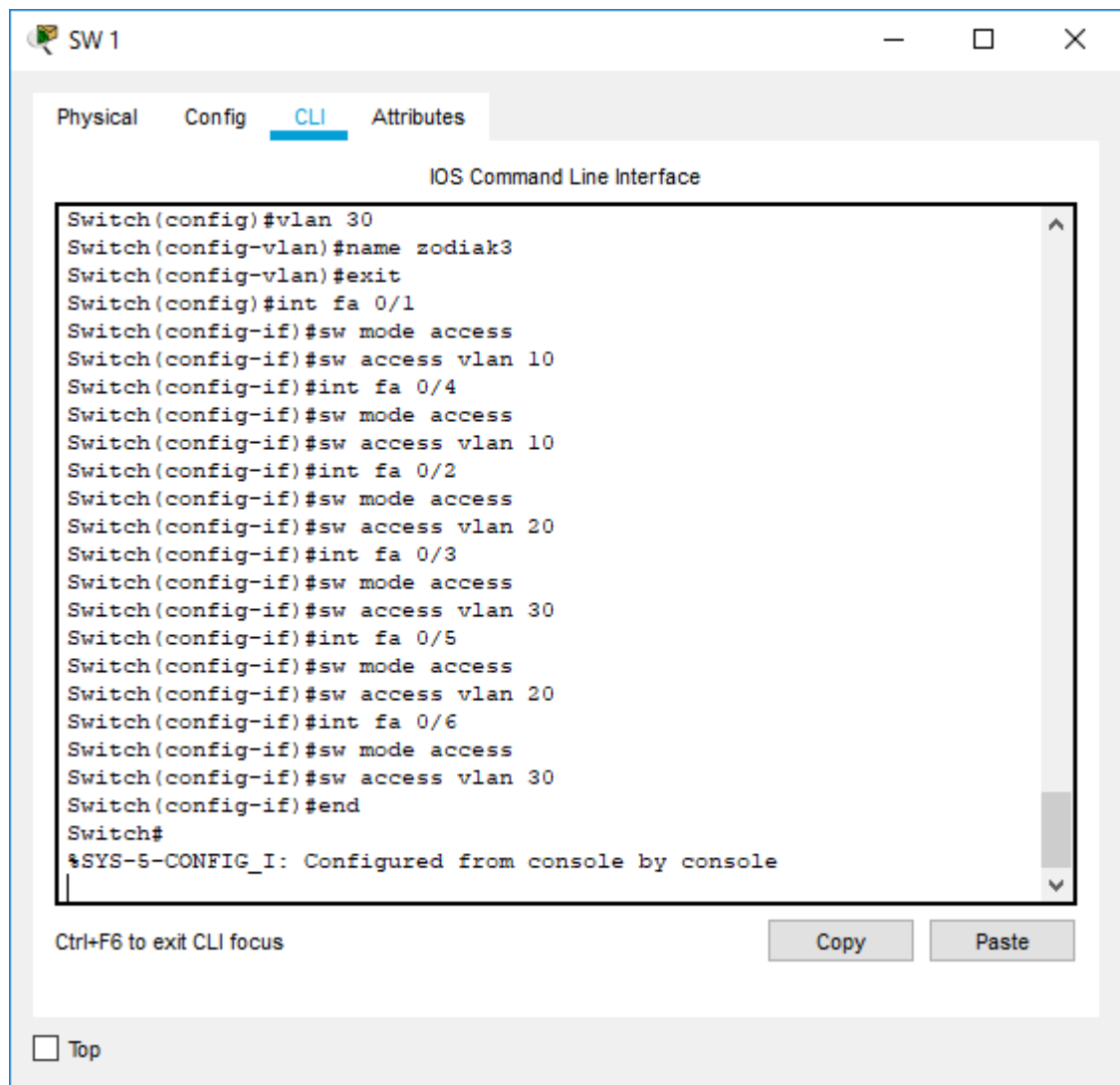
```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#
```

- E. Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3.

Zodiak 1 = leo dan libra

Zodiak 2 = aries dan taurus

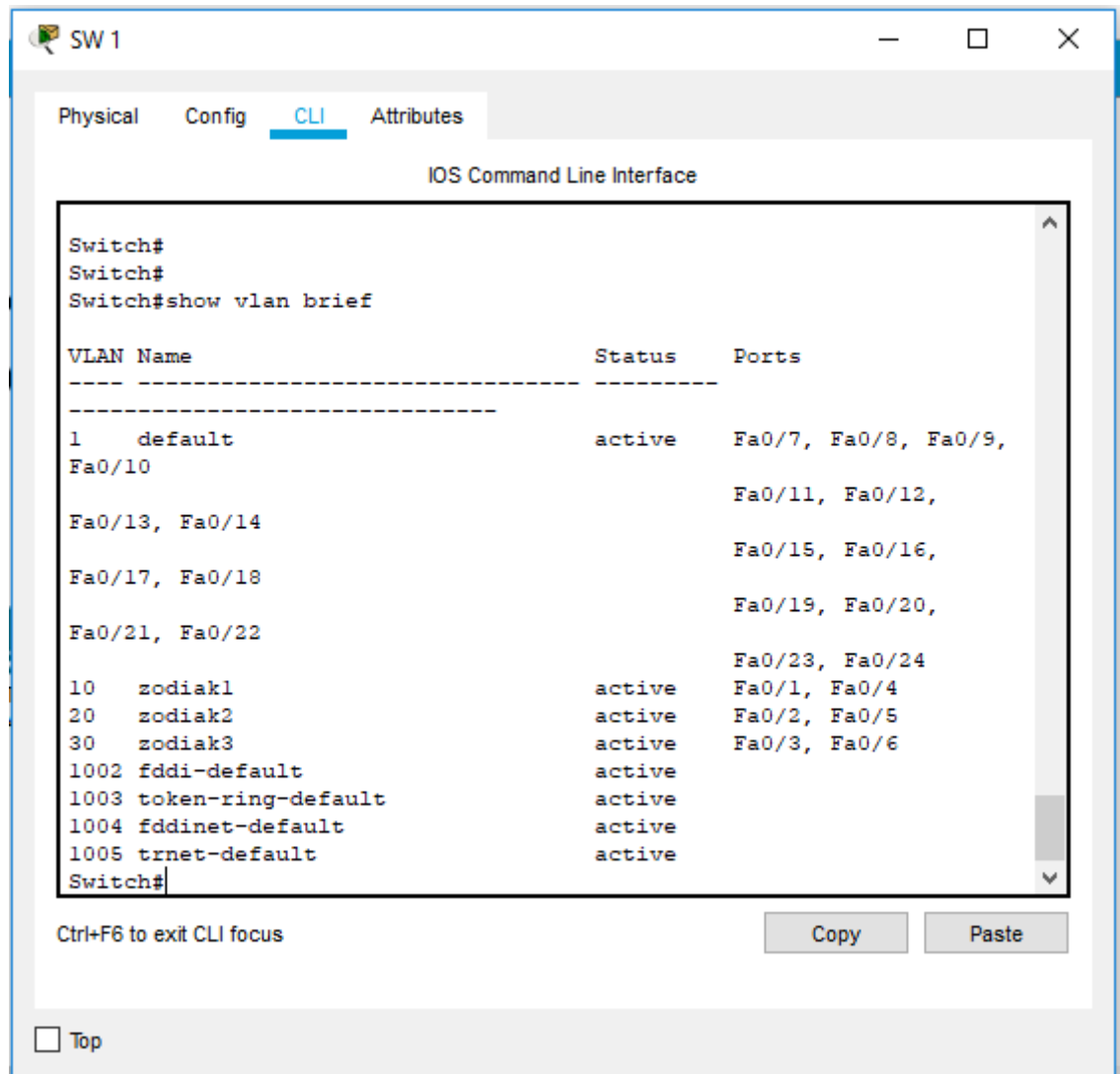
Zodiak 3 = virgo dan scorpio



```
SW 1
Physical Config CLI Attributes
IOS Command Line Interface
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Ctrl+F6 to exit CLI focus
Copy Paste
Top
```

- F. Pada mode user atau mode privileged, lihat konfigurasi VLAN yang telah dibuat.
Informasi VLAN keseluruhan



➤ Informasi VLAN 10

The screenshot shows a network switch window titled 'SW 1' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The user has entered the command 'Switch#show vlan id 10'. The output shows two tables. The first table lists ports and their status for VLAN 10. The second table provides detailed information about VLAN 10, including its type, SAID, MTU, and parent.

```

Fa0/21, Fa0/22
10    zodiak1      active
20    zodiak2      active
30    zodiak3      active
1002  fddi-default  active
1003  token-ring-default  active
1004  fddinet-default  active
1005  trnet-default  active
Switch#show vlan id 10

VLAN Name                Status    Ports
----
10    zodiak1                active    Fa0/1, Fa0/4

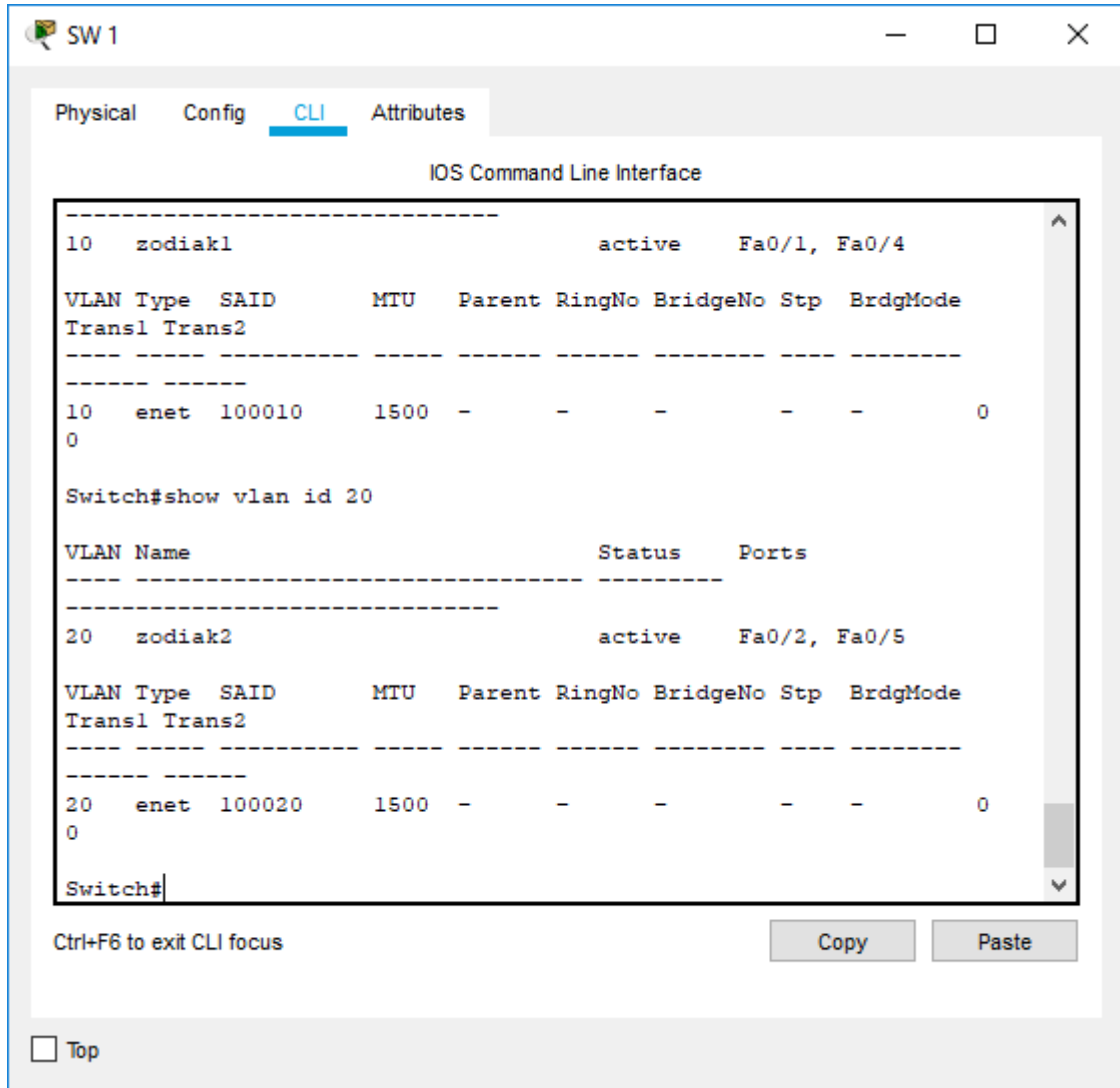
VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp   BrdgMode
Trans1 Trans2
-----
10    enet     100010   1500   -     -     -     -     -     0
0
Switch#
  
```

Below the CLI window, there is a 'Top' button and a 'Copy' button.

Tugas 6A

| No | Variabel | Nilai |
|----|------------|--------------|
| 1. | Nomor VLAN | 10 |
| 2. | Nama VLAN | Zodiak1 |
| 3. | Port | Fa0/1, Fa0/4 |
| 4. | Status | Active |

➤ Informasi VLAN 20



The screenshot shows a network switch configuration window titled "SW 1" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The interface shows the configuration for VLAN 20, named "zodiak2", which is active and associated with ports Fa0/2 and Fa0/5. The configuration details are as follows:

```

10    zodiak1                                active    Fa0/1, Fa0/4

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp   BrdgMode
Trans1 Trans2
-----
10    enet   100010    1500   -      -      -      -      -      0
0

Switch#show vlan id 20

VLAN Name                Status      Ports
-----
20    zodiak2                                active    Fa0/2, Fa0/5

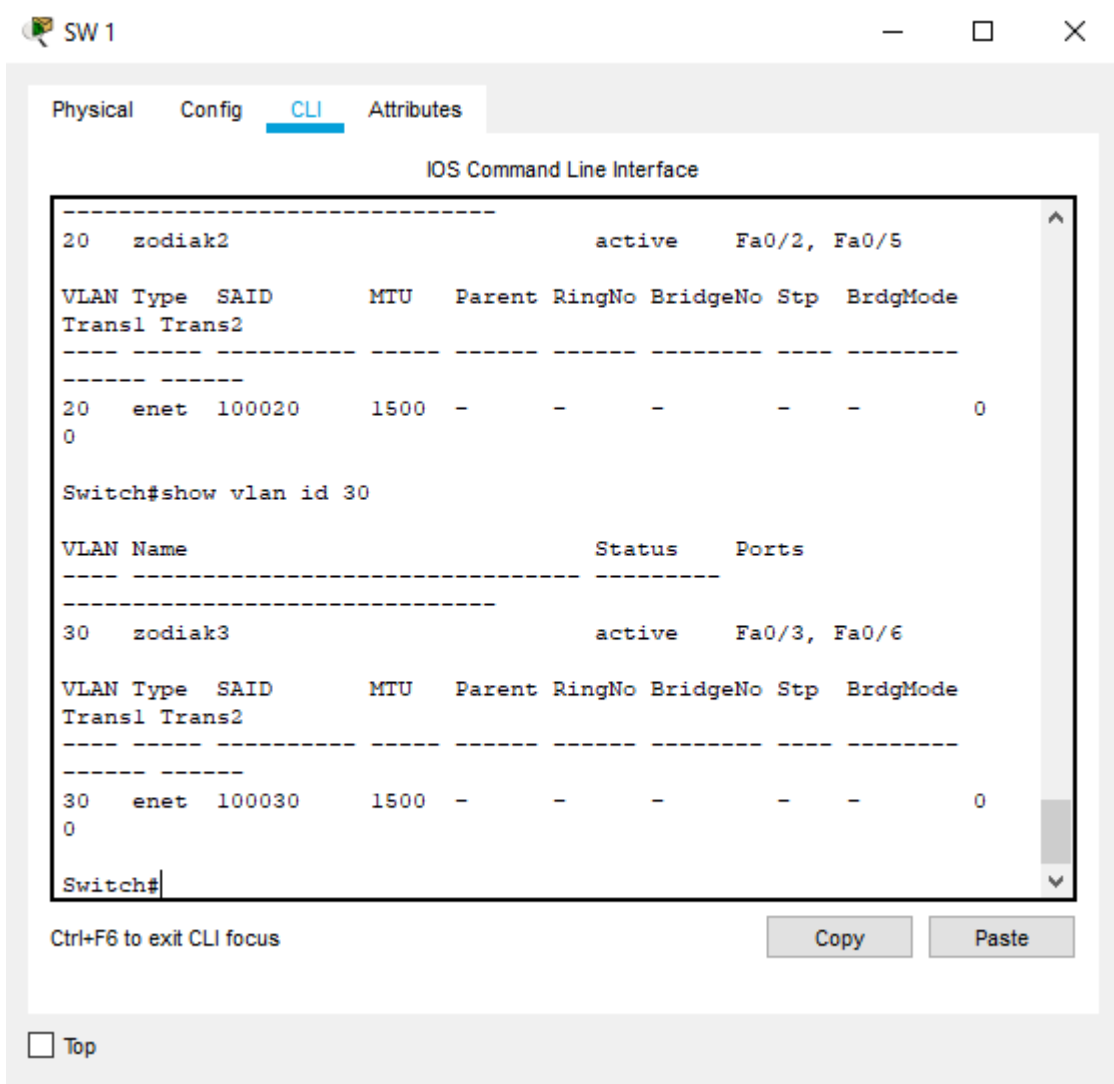
VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp   BrdgMode
Trans1 Trans2
-----
20    enet   100020    1500   -      -      -      -      -      0
0

Switch#
  
```

Below the CLI window, there are buttons for "Copy" and "Paste", and a "Top" link.

| No | Variabel | Nilai |
|----|------------|--------------|
| 1. | Nomor VLAN | 20 |
| 2. | Nama VLAN | Zodiak2 |
| 3. | Port | Fa0/2, Fa0/5 |
| 4. | Status | Active |

➤ Informasi VLAN 30



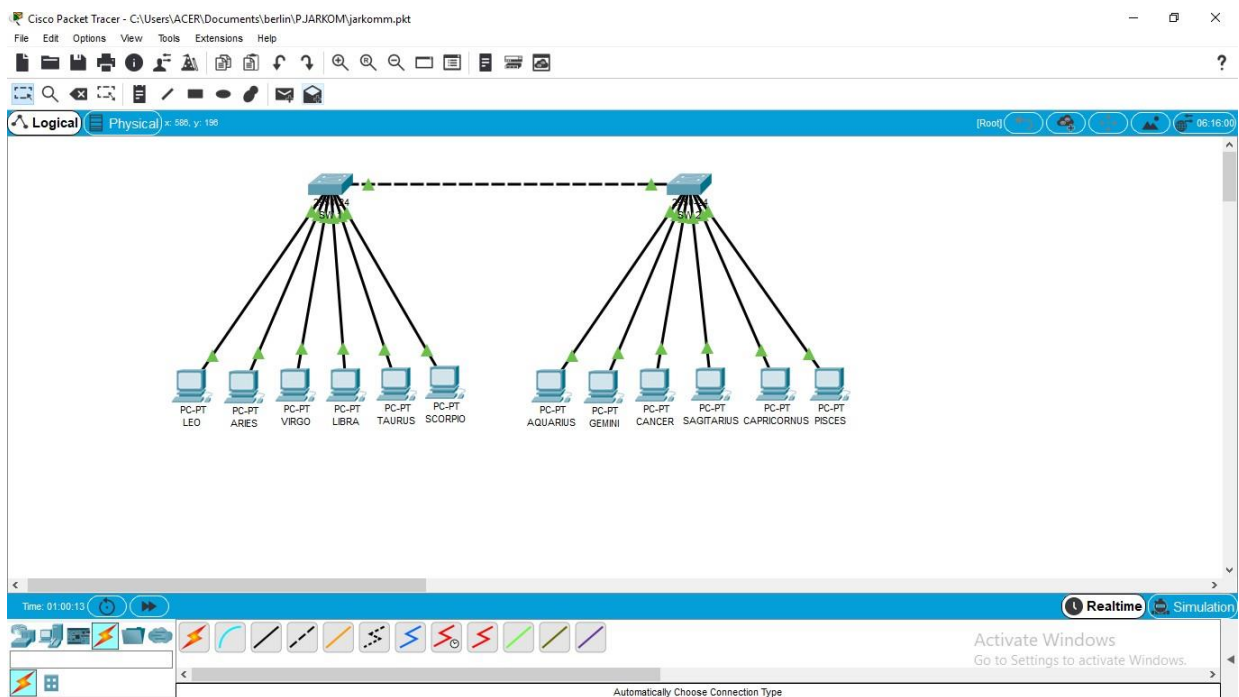
| No | Variabel | Nilai |
|----|------------|--------------|
| 1. | Nomor VLAN | 30 |
| 2. | Nama VLAN | Zodiak3 |
| 3. | Port | Fa0/3, Fa0/6 |
| 4. | Status | Active |

Tugas 6B: Jelaskan secara singkat hasil yang anda peroleh dari **tugas 6A**.

- Fa0/1 (Leo) dan Fa0/4 (Libra) berada pada VLAN yang sama yaitu zodiak 1. Dengan nomer VLAN 10 berstatus active
- Fa0/2 (Aries) dan Fa0/5(Taurus) berada pada VLAN 20, zodiak 2, dan berstatus active
- Fa0/3 (Virgo) dan Fa0/6(Scorpio) berada pada VLAN 30, zodiak 3, dan berstatus active
- Port yang terdaftar dalam VLAN sesuai dengan konfigurasi yang telah dilakukan sebelumnya.

KEGIATAN 2. TOPOLOGI 2

Menggunakan packet tracker buat topologi berikut ini dengan menggunakan switch catalystr2950. Beri nama masing-masing perangkat dengan SW1(switch 1), Leo(PC0), Aries(PC1), Virgo(PC2), Pisces(PC3), Taurus(PC4), dan scorpio(PC5) untuk segmen switch 1. Beri nama masing-masing perangkat dengan SW2(switch 2), Aquarius(PC6), Gemini(PC7), Cancer(PC8), Sagitarius(PC9), Carpiconus(PC10), dan Pisces(PC11) untuk segmen switch 2.



A. Konfigurasi masing-masing PC dengan nama dan alamat IP

➤ Leo = 172.21.1.1/24

The screenshot shows the configuration window for a PC named 'Leo'. The window has four tabs: 'Physical', 'Config', 'Desktop' (which is selected), and 'Attributes'. In the 'Desktop' tab, there are two main sections: 'IP Configuration' and '802.1X'.
In the 'IP Configuration' section, the 'Static' radio button is selected. The fields are filled with:
- IP Address: 172.21.1.1
- Subnet Mask: 255.255.0.0
- Default Gateway: 0.0.0.0
- DNS Server: 0.0.0.0
Below this, there is an 'IPv6 Configuration' section with three radio buttons: 'DHCP', 'Auto Config', and 'Static'. The 'Static' radio button is selected. The fields are filled with:
- IPv6 Address: (empty)
- Link Local Address: FE80::260:3EFF:FE8B:723B
- IPv6 Gateway: (empty)
- IPv6 DNS Server: (empty)
In the '802.1X' section, the 'Use 802.1X Security' checkbox is unchecked. The 'Authentication' dropdown menu is set to 'MD5'. The 'Username' and 'Password' fields are empty.
At the bottom left of the window, there is a 'Top' button.

➤ Aries = 172.21.1.2/24

The screenshot shows the 'Aries' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.1.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address set to FE80::260:2FFF:FEA6:6632, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password. A 'Top' button is at the bottom left.

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.1.2 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::260:2FFF:FEA6:6632 |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MD5 |
| Username | |
| Password | |

➤ Virgo = 172.21.2.1/24

The screenshot shows the 'Virgo' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.2.1, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address set to FE80::260:2FFF:FE4C:938B, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password. A 'Top' button is at the bottom left.

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.2.1 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::260:2FFF:FE4C:938B |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MD5 |
| Username | |
| Password | |

- Libra = 172.21.2.2/24

The screenshot shows the 'Libra' configuration window with the 'Desktop' tab selected. The 'Physical' section has 'Static' selected. The 'IP Address' field is set to '172.21.2.2', 'Subnet Mask' is '255.255.0.0', 'Default Gateway' is '0.0.0.0', and 'DNS Server' is '0.0.0.0'. The 'IPv6 Configuration' section has 'Static' selected, with 'IPv6 Address' empty, 'Link Local Address' set to 'FE80::201:C9FF:FE7A:8750', and 'IPv6 Gateway' and 'IPv6 DNS Server' empty. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

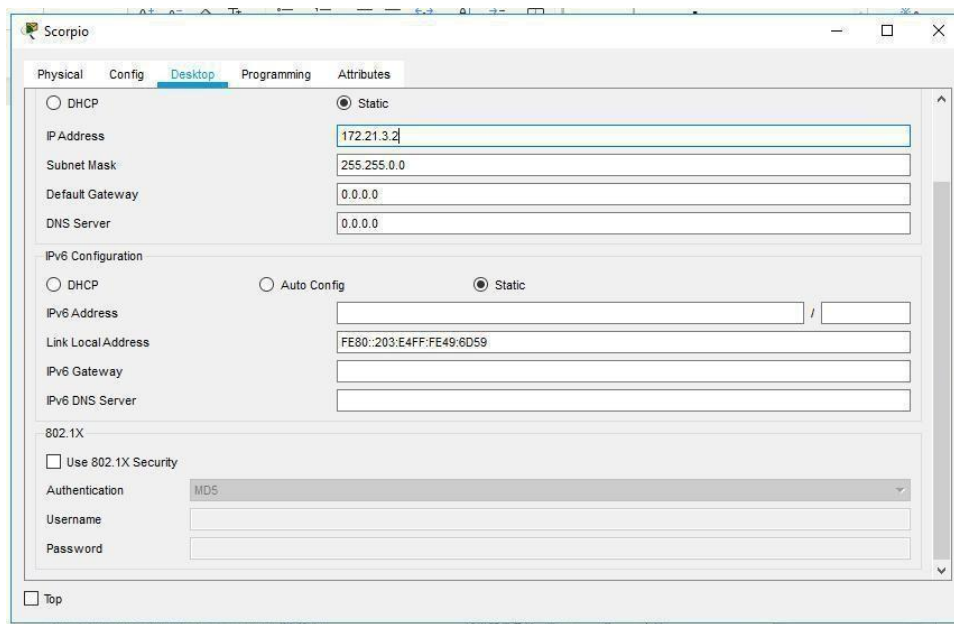
| Section | Option | Value |
|--------------------|---------------------|----------------------------------|
| Physical | DHCP | <input type="radio"/> |
| | Static | <input checked="" type="radio"/> |
| | IP Address | 172.21.2.2 |
| | Subnet Mask | 255.255.0.0 |
| Default Gateway | | 0.0.0.0 |
| | DNS Server | 0.0.0.0 |
| IPv6 Configuration | DHCP | <input type="radio"/> |
| | Auto Config | <input type="radio"/> |
| | Static | <input checked="" type="radio"/> |
| | IPv6 Address | |
| | Link Local Address | FE80::201:C9FF:FE7A:8750 |
| IPv6 Gateway | | |
| IPv6 DNS Server | | |
| 802.1X | Use 802.1X Security | <input type="checkbox"/> |
| | Authentication | MD5 |
| | Username | |
| | Password | |

- Taurus = 172.21.3.1/24

The screenshot shows the 'Taurus' configuration window with the 'Desktop' tab selected. The 'Physical' section has 'Static' selected. The 'IP Address' field is set to '172.21.3.1', 'Subnet Mask' is '255.255.0.0', 'Default Gateway' is '0.0.0.0', and 'DNS Server' is '0.0.0.0'. The 'IPv6 Configuration' section has 'Static' selected, with 'IPv6 Address' empty, 'Link Local Address' set to 'FE80::201:42FF:FE5E:C1C4', and 'IPv6 Gateway' and 'IPv6 DNS Server' empty. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

| Section | Option | Value |
|--------------------|---------------------|----------------------------------|
| Physical | DHCP | <input type="radio"/> |
| | Static | <input checked="" type="radio"/> |
| | IP Address | 172.21.3.1 |
| | Subnet Mask | 255.255.0.0 |
| Default Gateway | | 0.0.0.0 |
| | DNS Server | 0.0.0.0 |
| IPv6 Configuration | DHCP | <input type="radio"/> |
| | Auto Config | <input type="radio"/> |
| | Static | <input checked="" type="radio"/> |
| | IPv6 Address | |
| | Link Local Address | FE80::201:42FF:FE5E:C1C4 |
| IPv6 Gateway | | |
| IPv6 DNS Server | | |
| 802.1X | Use 802.1X Security | <input type="checkbox"/> |
| | Authentication | MD5 |
| | Username | |
| | Password | |

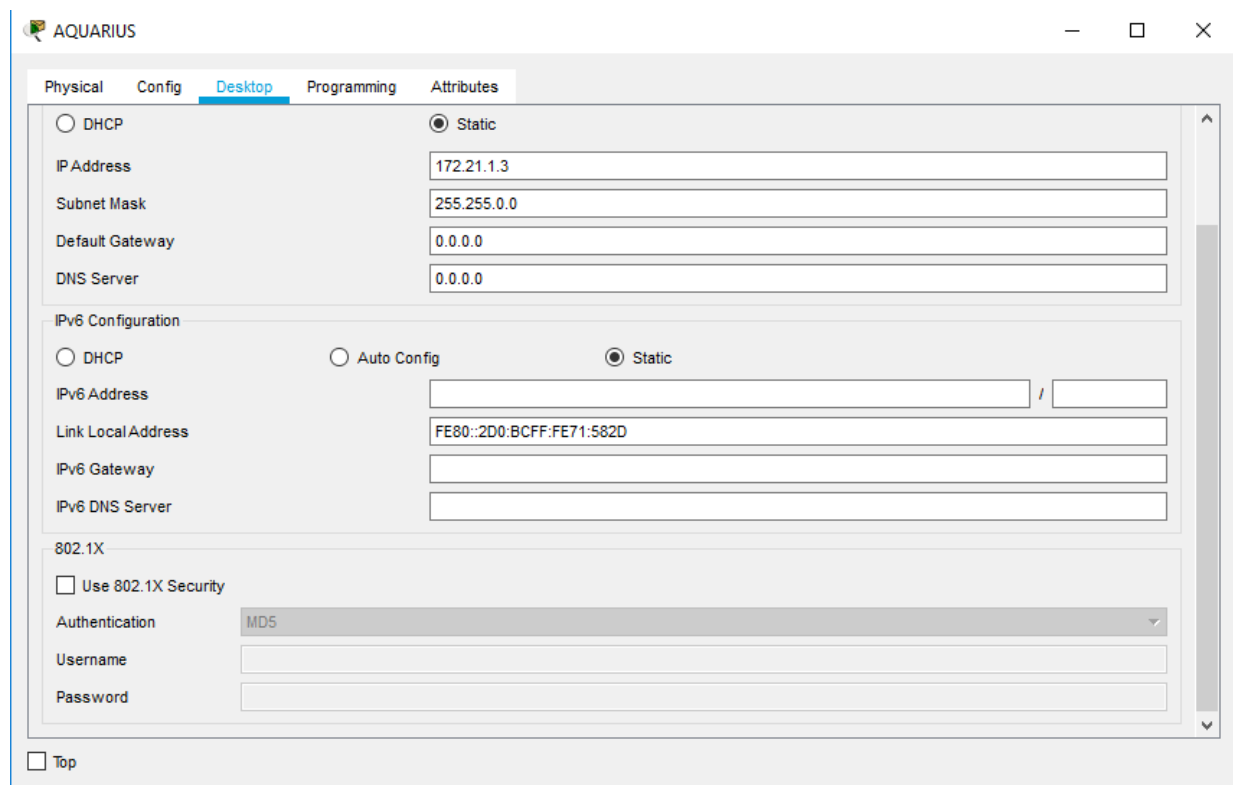
- Scorpio = 172.21.3.2/24



The image shows the 'Scorpio' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for IP configuration. The IP Address field is set to 172.21.3.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::203:E4FF:FE49:6D59), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty Username and Password fields. A 'Top' button is at the bottom left.

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.3.2 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::203:E4FF:FE49:6D59 |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MD5 |
| Username | |
| Password | |

- Aquarius = 172.21.1.3/24



The image shows the 'AQUARIUS' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for IP configuration. The IP Address field is set to 172.21.1.3, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::2D0:BCFF:FE71:582D), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty Username and Password fields. A 'Top' button is at the bottom left.

| Field | Value |
|---------------------|--------------------------|
| IP Address | 172.21.1.3 |
| Subnet Mask | 255.255.0.0 |
| Default Gateway | 0.0.0.0 |
| DNS Server | 0.0.0.0 |
| IPv6 Address | |
| Link Local Address | FE80::2D0:BCFF:FE71:582D |
| IPv6 Gateway | |
| IPv6 DNS Server | |
| Use 802.1X Security | <input type="checkbox"/> |
| Authentication | MD5 |
| Username | |
| Password | |

➤ Gemini = 172.21.1.4/24

The screenshot shows the 'GEMINI' network configuration window. It has a tabbed interface with 'Physical', 'Config', 'Desktop' (selected), 'Programming', and 'Attributes'. Under the 'Desktop' tab, there are three main sections: 1. DHCP/Static configuration with 'Static' selected, showing IP Address (172.21.1.4), Subnet Mask (255.255.0.0), Default Gateway (0.0.0.0), and DNS Server (0.0.0.0). 2. IPv6 Configuration with 'Static' selected, showing IPv6 Address (empty), Link Local Address (FE80::250:FFF:FE29:6AAD), IPv6 Gateway (empty), and IPv6 DNS Server (empty). 3. 802.1X configuration with 'Use 802.1X Security' unchecked, Authentication set to 'MD5', and empty fields for Username and Password. A 'Top' button is at the bottom left.

GEMINI

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address 172.21.1.4

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::250:FFF:FE29:6AAD

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

➤ Cancer = 172.21.2.3/24

The screenshot shows the 'CANCER' network configuration window, which has the same layout as the GEMINI window. Under the 'Desktop' tab, the 'Static' radio button is selected. The IP Address is 172.21.2.3, Subnet Mask is 255.255.0.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. In the IPv6 Configuration section, 'Static' is selected, and the Link Local Address is FE80::2D0:97FF:FE17:51EC. The 802.1X section is identical to the GEMINI window, with 'Use 802.1X Security' unchecked and Authentication set to 'MD5'. A 'Top' button is at the bottom left.

CANCER

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address 172.21.2.3

Subnet Mask 255.255.0.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::2D0:97FF:FE17:51EC

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

➤ Sagitarius = 172.21.2.4/24

The screenshot shows the SAGITARIUS configuration window with the 'Desktop' tab selected. The window has a title bar with the SAGITARIUS logo and standard window controls. The main content area is divided into four tabs: Physical, Config, Desktop (active), Programming, and Attributes. The Desktop tab contains three sections: 1. DHCP/Static configuration with radio buttons and input fields for IP Address (172.21.2.4), Subnet Mask (255.255.0.0), Default Gateway (0.0.0.0), and DNS Server (0.0.0.0). 2. IPv6 Configuration with radio buttons for DHCP, Auto Config, and Static (selected), and input fields for IPv6 Address, Link Local Address (FE80::200:CFF:FEC0:C702), IPv6 Gateway, and IPv6 DNS Server. 3. 802.1X configuration with a checkbox for 'Use 802.1X Security' (unchecked), a dropdown for 'Authentication' (MD5), and input fields for 'Username' and 'Password'. A 'Top' button is located at the bottom left of the window.

SAGITARIUS

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.2.4

Subnet Mask: 255.255.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::200:CFF:FEC0:C702

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

➤ Carpiconus = 172.21.3.3/24

The screenshot shows the CAPRICORNUS configuration window with the 'Desktop' tab selected. The window has a title bar with the CAPRICORNUS logo and standard window controls. The main content area is divided into four tabs: Physical, Config, Desktop (active), Programming, and Attributes. The Desktop tab contains three sections: 1. DHCP/Static configuration with radio buttons and input fields for IP Address (172.21.3.3), Subnet Mask (255.255.0.0), Default Gateway (0.0.0.0), and DNS Server (0.0.0.0). 2. IPv6 Configuration with radio buttons for DHCP, Auto Config, and Static (selected), and input fields for IPv6 Address, Link Local Address (FE80::260:3EFF:FEED:DA6), IPv6 Gateway, and IPv6 DNS Server. 3. 802.1X configuration with a checkbox for 'Use 802.1X Security' (unchecked), a dropdown for 'Authentication' (MD5), and input fields for 'Username' and 'Password'. A 'Top' button is located at the bottom left of the window.

CAPRICORNUS

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.3.3

Subnet Mask: 255.255.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:3EFF:FEED:DA6

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

Password:

☐ Top

➤ Pisces = 172.21.3.4/24

The screenshot shows the 'PISCES' network configuration window. The 'Desktop' tab is selected. Under the 'Config' section, the 'Static' radio button is chosen for IP configuration. The IP Address is set to 172.21.3.4, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section has the 'Static' radio button selected, with an IPv6 Address field containing a slash (/) and a Link Local Address set to FE80::2E0:F9FF:FE07:59B7. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'Authentication' set to 'MD5'. There are fields for 'Username' and 'Password'. A 'Top' button is at the bottom left.

B. Lakukan langkah 4 dan 5 laboratorium 1 untuk switch 1

The screenshot shows the 'SW 1' network configuration window with the 'CLI' tab selected. The 'IOS Command Line Interface' window is open, displaying the following commands:

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

At the bottom, there is a 'Ctrl+F6 to exit CLI focus' message and 'Copy' and 'Paste' buttons. A 'Top' button is also present at the bottom left.

C. Lakukan konfigurasi VLAN trunking pada switch 1

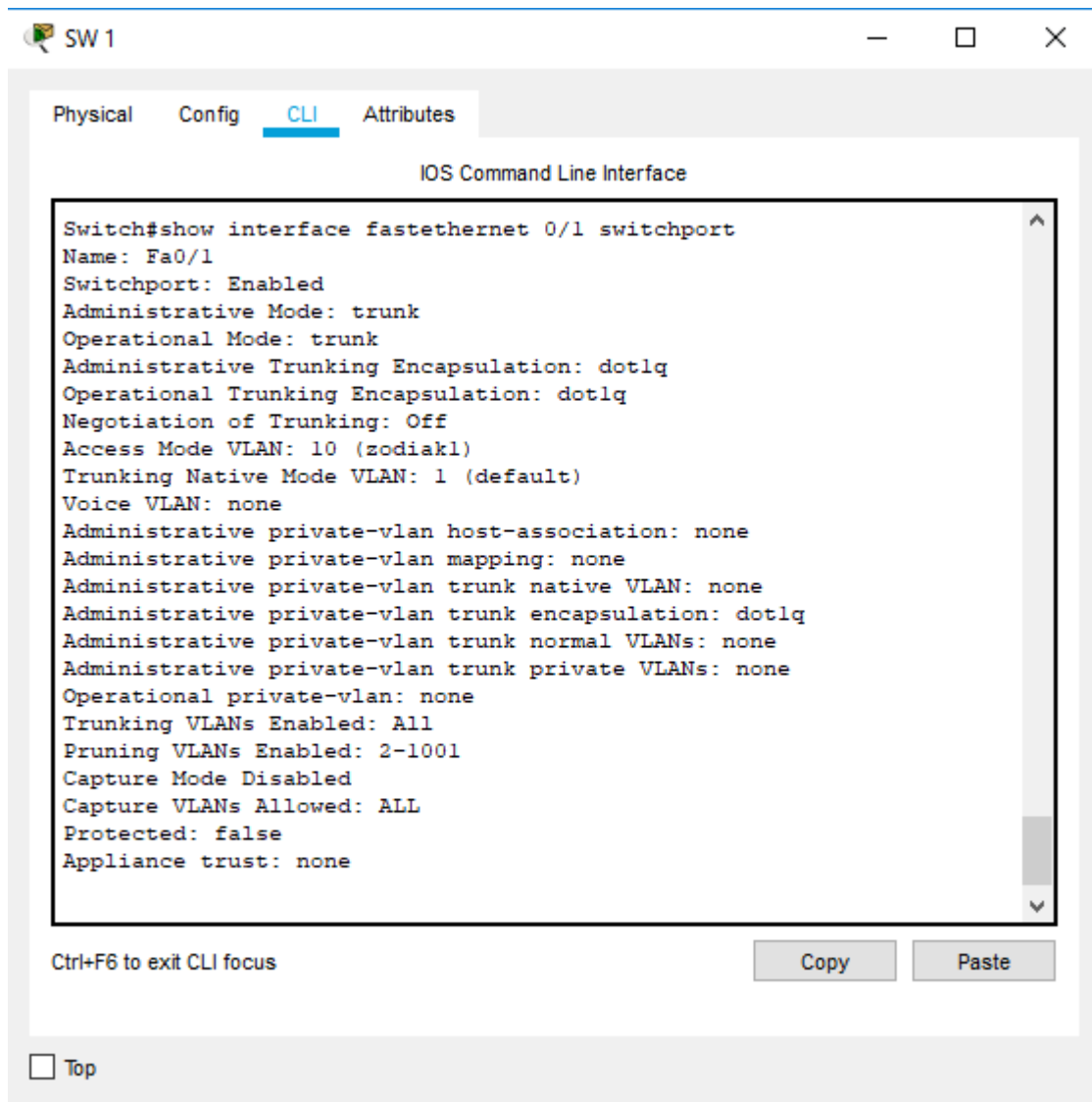
```
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up

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

D. Pada mode user atau mode privileged, lihat konfigurasi trunking yang telah dibuat



The screenshot shows a network switch's CLI interface with the command `Switch#show vlan` executed. The output is divided into two sections. The first section lists VLANs with their names, status, and associated ports. The second section provides detailed information for each VLAN, including type, SAID, MTU, parent, ring number, bridge number, STP mode, and bridge mode.

| VLAN | Name | Status | Ports |
|------|--------------------|--------|---|
| 1 | default | active | Fa0/7, Fa0/8, Fa0/9, Fa0/10, Fa0/11, Fa0/12, Fa0/13, Fa0/14, Fa0/15, Fa0/16, Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22, Fa0/23, Fa0/24 |
| 10 | zodiak1 | active | Fa0/4 |
| 20 | zodiak2 | active | Fa0/2, Fa0/5 |
| 30 | zodiak3 | active | Fa0/3, Fa0/6 |
| 1002 | fddi-default | active | |
| 1003 | token-ring-default | active | |
| 1004 | fddinet-default | active | |
| 1005 | trnet-default | active | |

| VLAN | Type | SAID | MTU | Parent | RingNo | BridgeNo | Stp | BrdgMode |
|------|-------|--------|------|--------|--------|----------|------|----------|
| 1 | enet | 100001 | 1500 | - | - | - | - | 0 |
| 10 | enet | 100010 | 1500 | - | - | - | - | 0 |
| 20 | enet | 100020 | 1500 | - | - | - | - | 0 |
| 30 | enet | 100030 | 1500 | - | - | - | - | 0 |
| 1002 | fddi | 101002 | 1500 | - | - | - | - | 0 |
| 1003 | tr | 101003 | 1500 | - | - | - | - | 0 |
| 1004 | fdnet | 101004 | 1500 | - | - | - | ieee | 0 |

Tugas 7A : Jelaskan secara singkat hasil yang anda peroleh dari langkah 7.

- Mengaktifkan switch port Fa0/1(port yang digunakan untuk trunk),
Administrative mode menjadi trunk dan juga Operational Mode trunk.
- Saat kita mengetikan *show interface fastheternet 0/??*(?? nomer port trunking) akan muncul status switchport trunk pada interface:
 - Administrative Mode. Merupakan switchport default yaitu trunk
 - Administrative Trunking Encapsulation. Merupakan enkapsulasi default yaitu dot1q.
 - Trunking Native Mode VLAN. Native VLAN default menggunakan VLAN1.
 - Capture VLANs Allowed. Secara default, semua VLAN dibolehkan masuk ke trunk port.
- Saat kita mengetikan *show interface trunk* akan menampilkan status trunking dan semua VLAN dibolehkan masuk trunk.

- Saat kita mengetikkan *show vlan* berfungsi untuk mengecek status pada VLAN
- Lakukan ping dari PC leo ke PC pisces

E. Lakukan ping dari PC leo ke PC Pisces

```

Packet Tracer PC Command Line 1.0
C:\>ping 172.21.3.4

Pinging 172.21.3.4 with 32 bytes of data:

Reply from 172.21.3.4: bytes=32 time=8ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128
Reply from 172.21.3.4: bytes=32 time<1ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128

Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 2ms

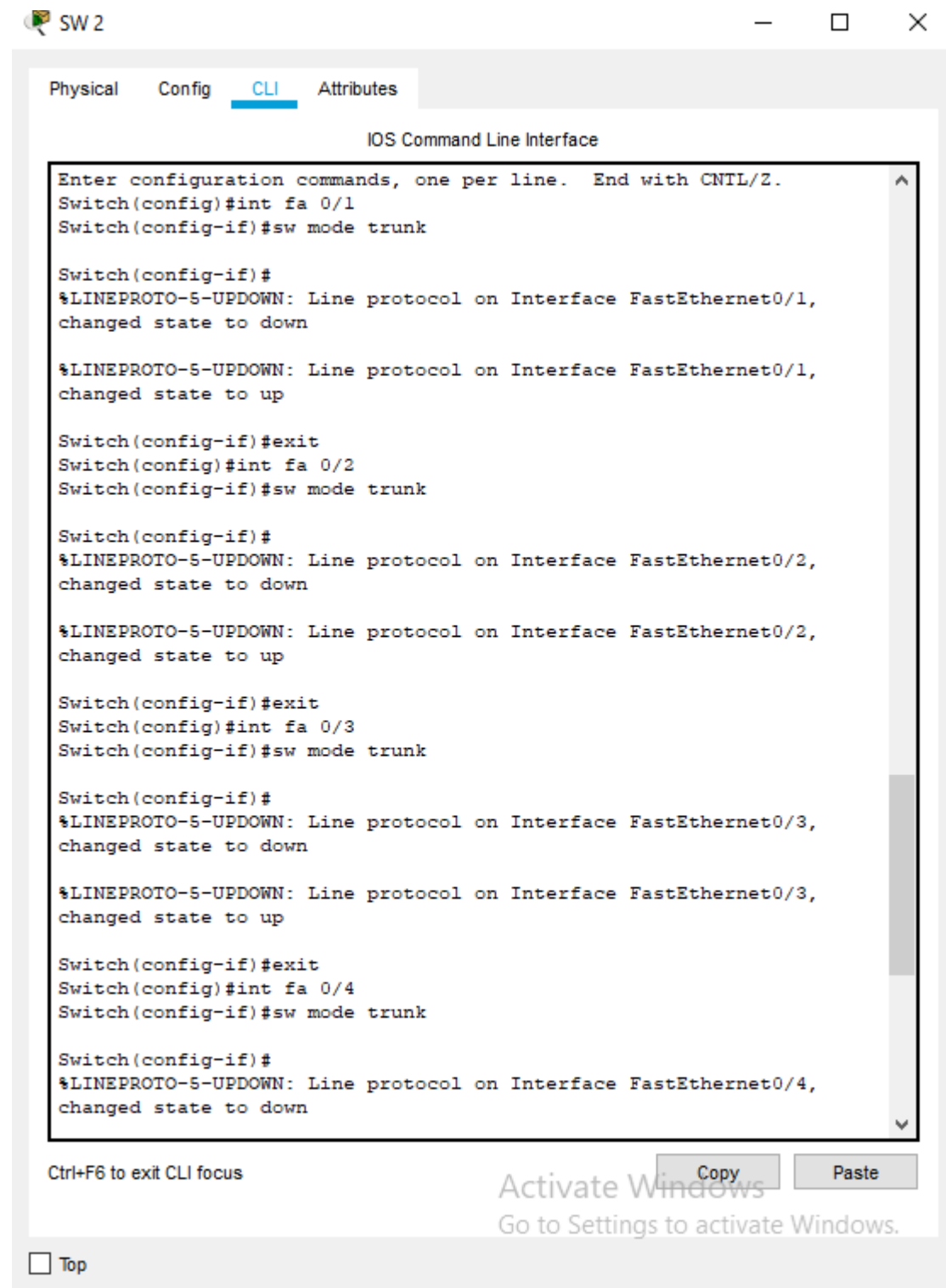
C:\>

```

Tugas 8A : Jelaskan secara singkat mengapa hasil yang anda peroleh dari langkah 8 mendapatkan status “Reply”?

- Ping dari PC leo ke PC Pisces mendapatkan status Reply karena telah di trunking dan menyambungkan sesama VLAN ID

F. Lakukan konfigurasi VLAN trunking pada switch 2 seperti langkah 6



G. Pada mode user atau mode privileged, lihat konfigurasi VLAN pada switch 2

SW 2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
% Invalid input detected at '^' marker.  
Switch(config)#exit  
Switch#  
%SYS-5-CONFIG_I: Configured from console by console  
Switch#show vlan
```

| VLAN Name | Status | Ports |
|-------------------------|--------|--|
| 1 default | active | Fa0/7, Fa0/8, Fa0/9, Fa0/10, Fa0/11, Fa0/12, Fa0/13, Fa0/14, Fa0/15, Fa0/16, Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22, Fa0/23, Fa0/24 |
| 10 zodiak1 | active | |
| 20 zodiak2 | active | |
| 30 zodiak3 | active | |
| 1002 fddi-default | active | |
| 1003 token-ring-default | active | |
| 1004 fddinet-default | active | |
| 1005 trnet-default | active | |

| VLAN Type | SAID | MTU | Parent | RingNo | BridgeNo | Stp | BrdgMode |
|-----------|--------|--------|--------|--------|----------|-----|----------|
| Trans1 | Trans2 | | | | | | |
| 1 | enet | 100001 | 1500 | - | - | - | 0 |
| 10 | enet | 100010 | 1500 | - | - | - | 0 |
| 20 | enet | 100020 | 1500 | - | - | - | 0 |
| 30 | enet | 100030 | 1500 | - | - | - | 0 |

--More--

Ctrl+F6 to exit CLI focus

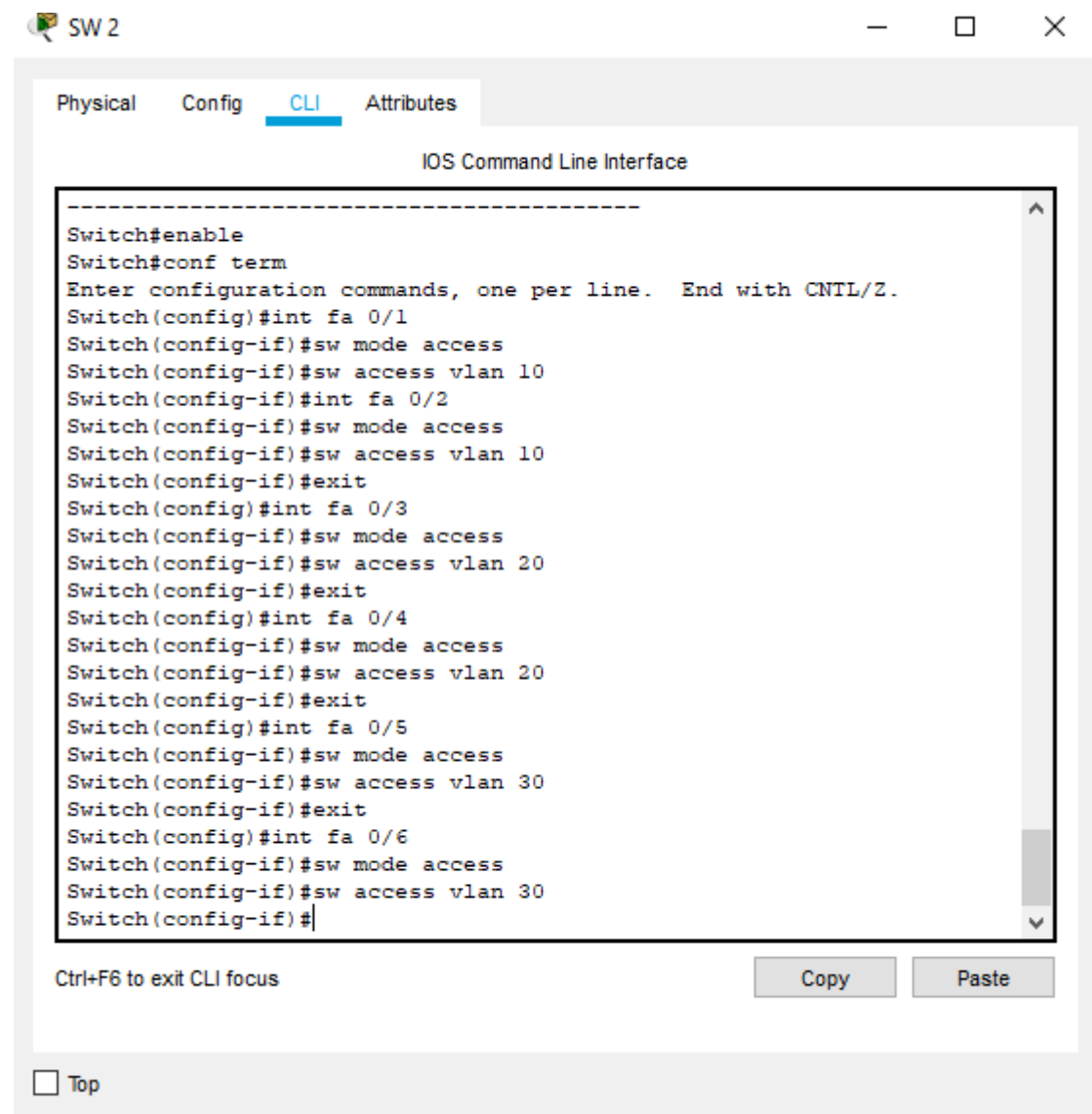
Copy Paste

☐ Top

Tugas 10A : Jelaskan secara singkat hasil yang anda peroleh dari langkah 10.

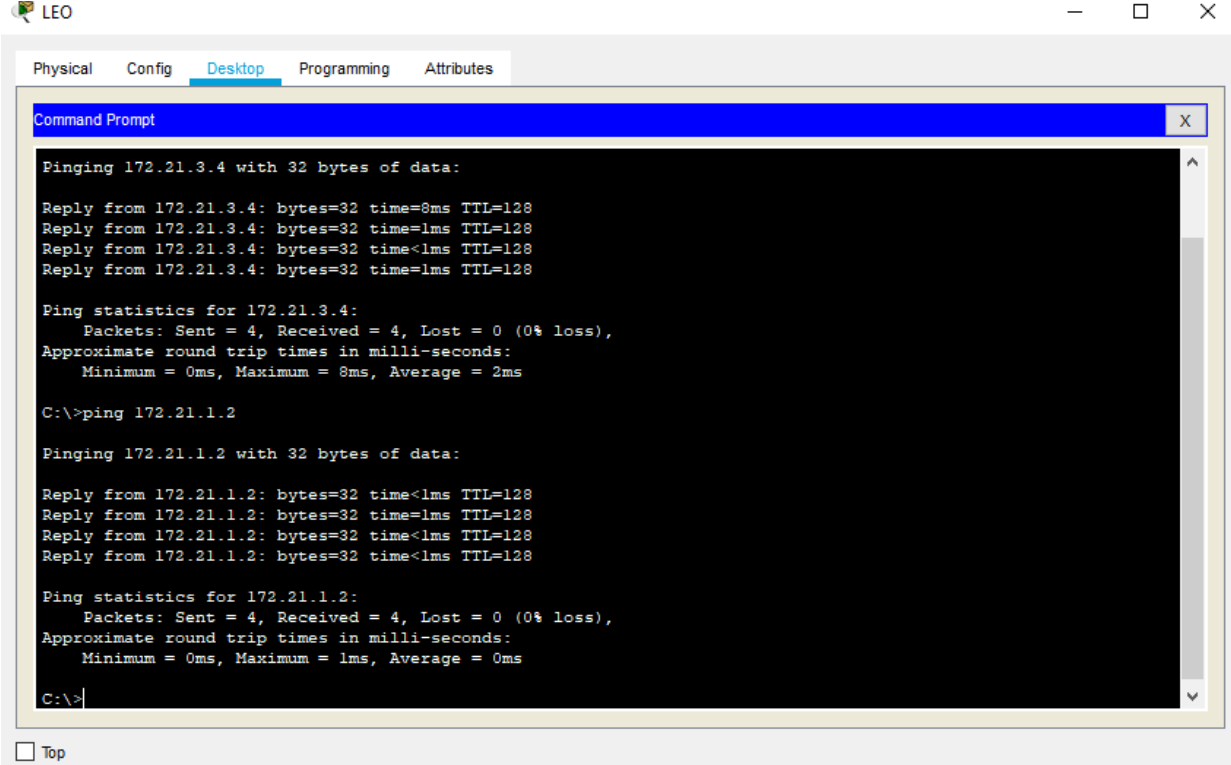
- Dapat disimpulkan bahwa pada konfigurasi trunking sudah dilakukan dan dalam switch menunjukkan konfigurasi trunking sudah berjalan. Port yang telah didaftarkan dalam trunking memiliki kapasitas untuk managed beberapa hal yang berkaitan dengan domain(1, 10, 20, 30).

- H. Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3.



I. Lakukan ping dari:

- Leo ke Aries



LEO

Physical Config Desktop Programming Attributes

Command Prompt

```
Pinging 172.21.3.4 with 32 bytes of data:

Reply from 172.21.3.4: bytes=32 time=8ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128
Reply from 172.21.3.4: bytes=32 time<1ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128

Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 2ms

C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

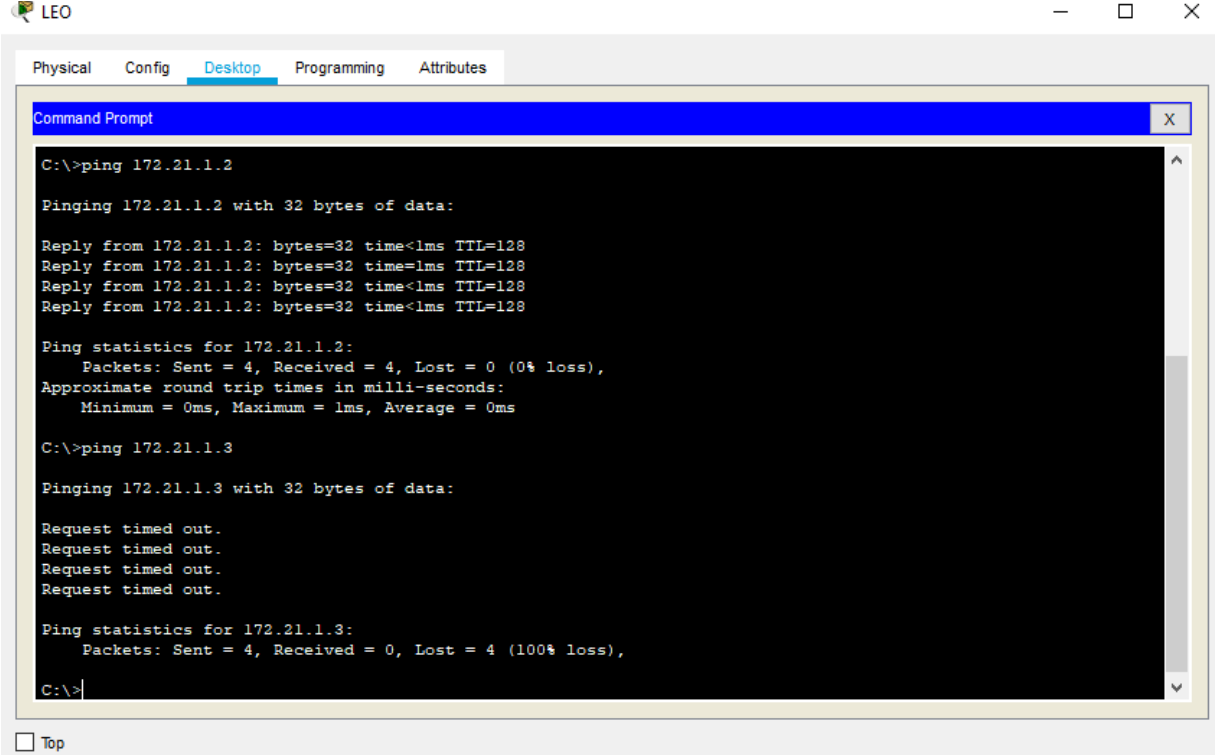
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time=1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

☐ Top

- Leo ke Aquarius



LEO

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time=1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

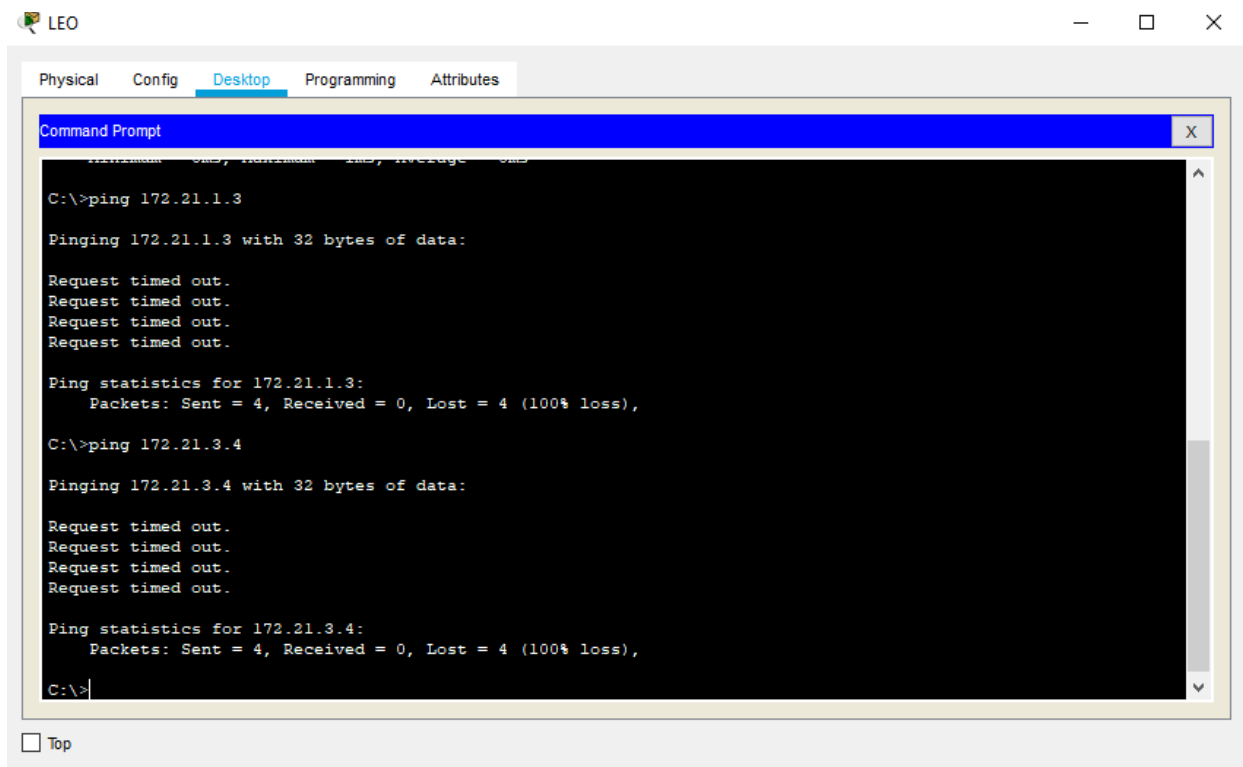
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

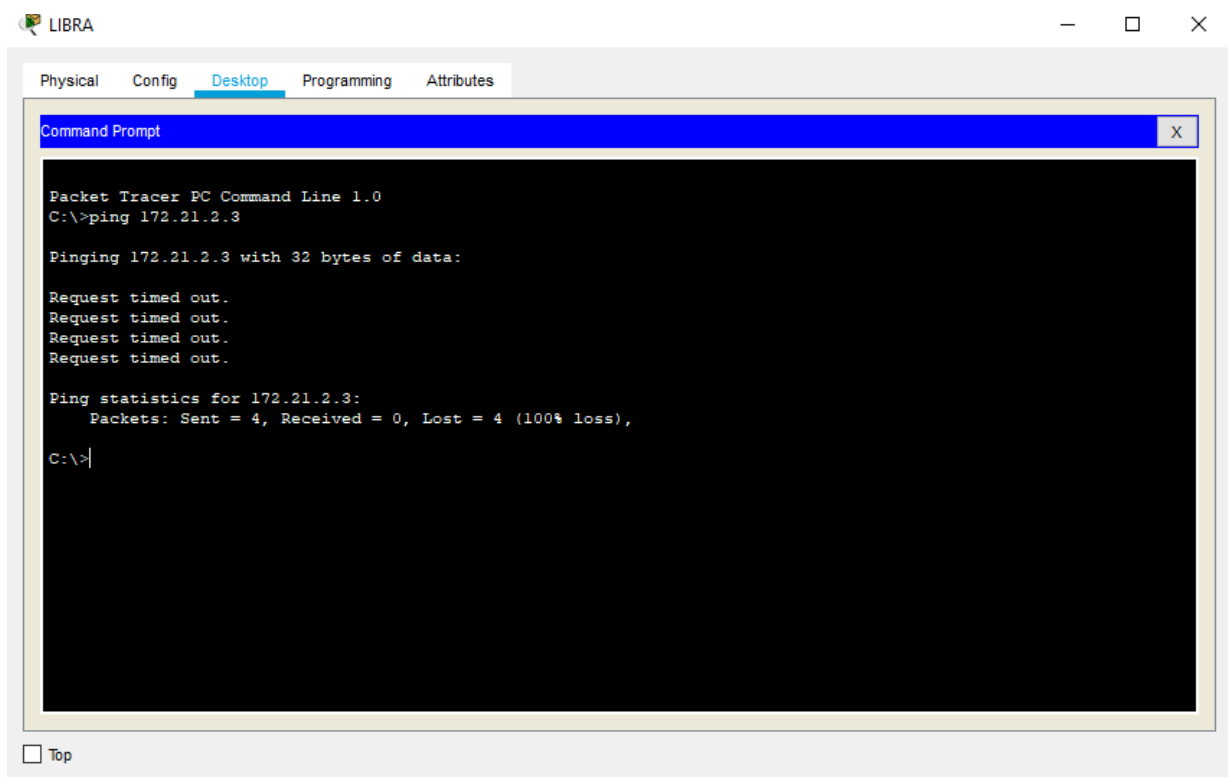
C:\>|
```

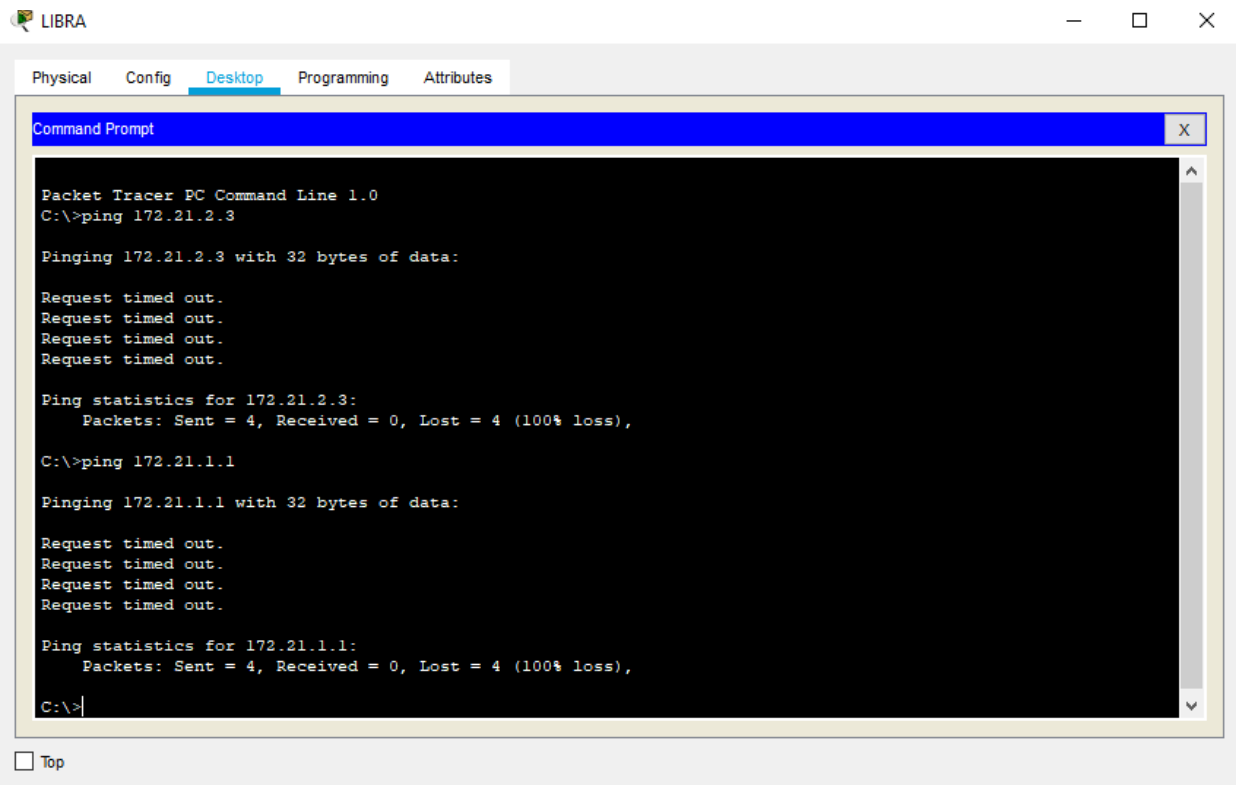
☐ Top

➤ Leo ke Pisces



➤ Libra ke Cancer





The screenshot shows a Packet Tracer PC Command Line window with the following text:

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.2.3

Pinging 172.21.2.3 with 32 bytes of data:

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

Ping statistics for 172.21.2.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

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

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

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

Tugas 12A : Jelaskan secara singkat hasil yang anda peroleh dari langkah 8.

- Dari langkah 8 dapat disimpulkan bahwa seluruh device yang sudah dikonfigurasi hasil dari pengujian koneksi(ping) menunjukkan bahwa device yang dalam jaringan yang sama namun memiliki perbedaan VLAN menunjukkan hasil RTO, dalam network yang sama namun dalam VLAN yang berbeda juga menunjukkan hasil RTO.
- Untuk hasil pengujian koneksi(ping) yang reply hanyalah dalam device dengan spesifikasi jaringan yang sama dan dalam VLAN yang sama.

