Nama   : Febrianto Ridwan Syah

Nim   : L200170121

Kelas   : C

Kegiatan 1
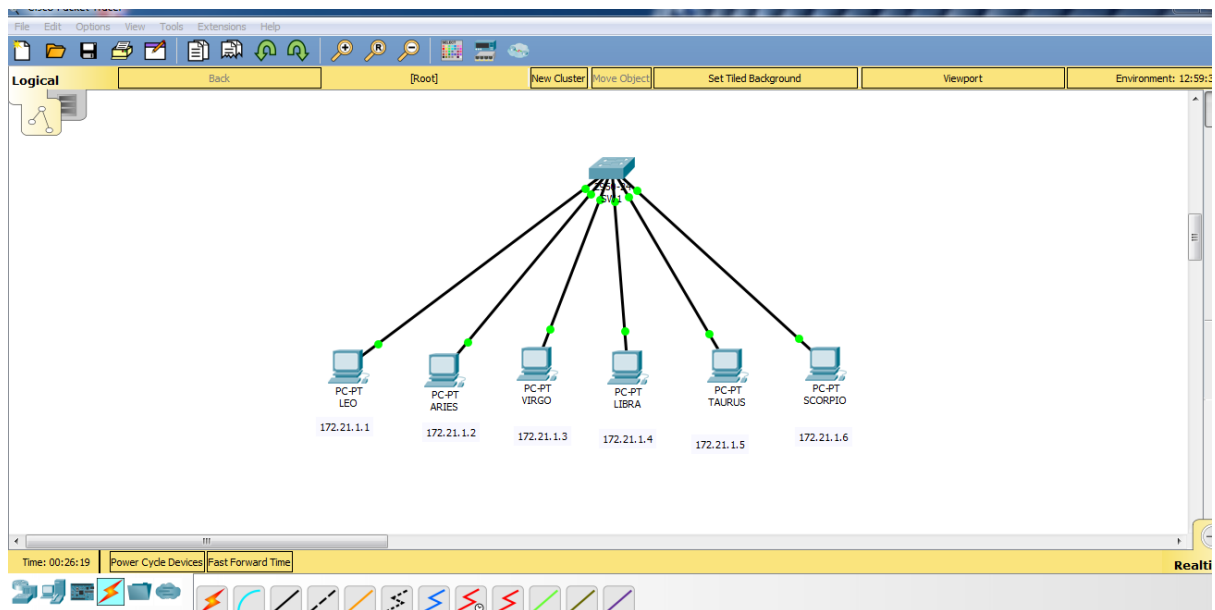
```
Switch>enable
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#vlan zodiak 1
                ^
% Invalid input detected at '^' marker.

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)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#enable
Switch#show vlan brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                                Fa0/5, Fa0/6, 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
```

Ctrl+F6 to exit CLI focus

Langkah No 5.

```
Switch#enable
Switch#show vlan brief

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                                Fa0/5, Fa0/6, 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
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#interface Fastethernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#interface Fastethernet 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to down

%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

Switch(config)#int Fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
```

Ctrl+F6 to exit CLI focus

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

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)#exit
Switch(config)#int Fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int Fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#exit
Switch(config)#int Fa 0/3
Switch(config-if)#sw mode access vlan 30'
                                       ^
% Invalid input detected at '^' marker.

Switch(config-if)#sw mode access vlan 30
                                        ^
% Invalid input detected at '^' marker.

Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int Fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show id 10
             ^
% Invalid input detected at '^' marker.
```

Ctrl+F6 to exit CLI focus

Langkah No 6.

```
Switch(config-if)#sw access vlan 30
Switch(config-if)#int Fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show id 10
             ^
% Invalid input detected at '^' marker.

Switch#show vlan brief

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    Fa0/1, 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
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
```

Ctrl+F6 to exit CLI focus

```
                                    Fa0/23, Fa0/24
10   zodiak1                        active    Fa0/1, 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
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#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#show vlan id 30

VLAN Name                           Status    Ports
---- -------------------------------- --------- -------------------------------
30   zodiak3                        active    Fa0/3, Fa0/6

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
30   enet  100030     1500  -      -      -        -    -        0      0

Switch#
```

Ctrl+F6 to exit CLI focus

Tugas 6A :

| No	Variabel	Nilai		
1.	Nomor Vlan	10	20	30
2.	Nama Vlan	zodiak1	zodiak2	zodiak3
3.	Port	Fa 0/1, Fa 0/4	Fa 0/2, Fa 0/5	Fa 0/3, Fa 0/6
4.	Status	Active	Active	Active

Tugas 6B :

Penjelasan dari table diatas :

- Nomor Vlan 10 nama Vlan zodiak1, memiliki port Fa 0/2(leo) dan Fa 0/4 (Libra). Yang sudah di konfigurasikan sesuai dengan yang ada di modul yang statusnya bersifat active. Yang setiap PC sudah mempunya Ip nya masing masing

- Nomor Vlan 20 nama Vlan zodiak1, memiliki port Fa 0/2(Aries) dan Fa 0/5 (Taurus). Yang sudah di konfigurasikan sesuai dengan yang ada di modul yang statusnya bersifat active. Yang setiap PC sudah mempunya Ip nya masing masing

- Nomor Vlan 30 nama Vlan zodiak1, memiliki port Fa 0/3(virgo) dan Fa 0/6 (Scorpio). Yang sudah di konfigurasikan sesuai dengan yang ada di modul yang statusnya bersifat active. Yang setiap PC sudah mempunya Ip nya masing masing

Kegiatan 2
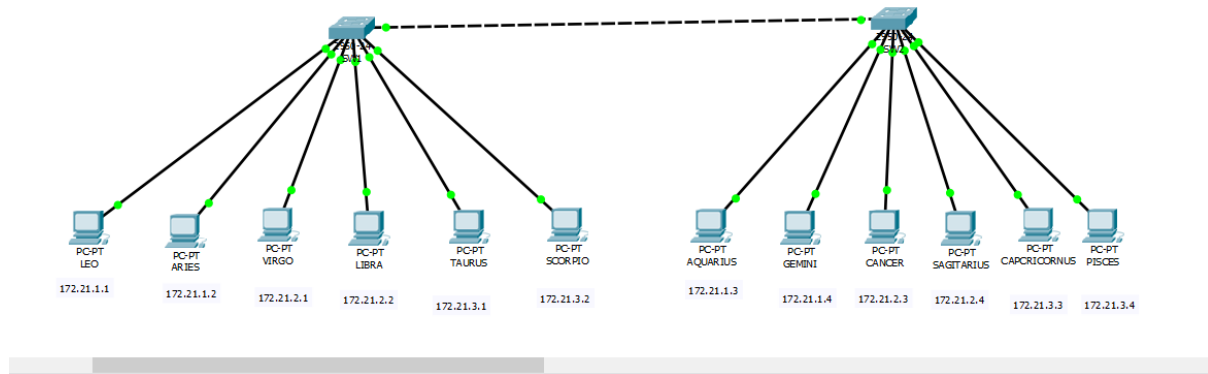
5. untuk SW1 Sudah di sertakan pada SS an kegiatan pertama

Untuk SW2 :

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up


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)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#inter Fa 0/1
Switch(config-if)#switchport mode acces
Switch(config-if)#switchport access vlan 10
Switch(config-if)#inter Fa 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int Fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#inter Fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#exit
Switch(config)#inter Fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
```

Ctrl+F6 to exit CLI focus

langkah Nomor 6 dan 7

IOS Command Line Interface

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#interface fa 0/7
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up

Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show interface trunk
Port        Mode          Encapsulation  Status        Native vlan
Fa0/7       on            802.1q         trunking      1

Port        Vlans allowed on trunk
Fa0/7       1-1005

Port        Vlans allowed and active in management domain
Fa0/7       1,10,20,30

Port        Vlans in spanning tree forwarding state and not pruned
Fa0/7       1,10,20,30

Switch#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    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    Fa0/1, Fa0/4
```

```
Physical   Config   CLI   Attributes
                                                          IOS Command Line Interface

Switch#show interface trunk
Port         Mode          Encapsulation  Status      Native vlan
Fa0/7        on            802.1q         trunking    1

Port         Vlans allowed on trunk
Fa0/7        1-1005

Port         Vlans allowed and active in management domain
Fa0/7        1,10,20,30

Port         Vlans in spanning tree forwarding state and not pruned
Fa0/7        1,10,20,30

Switch#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    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    Fa0/1, 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 Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
30   enet  100030     1500  -      -      -        -    -        0      0
 --More--
```
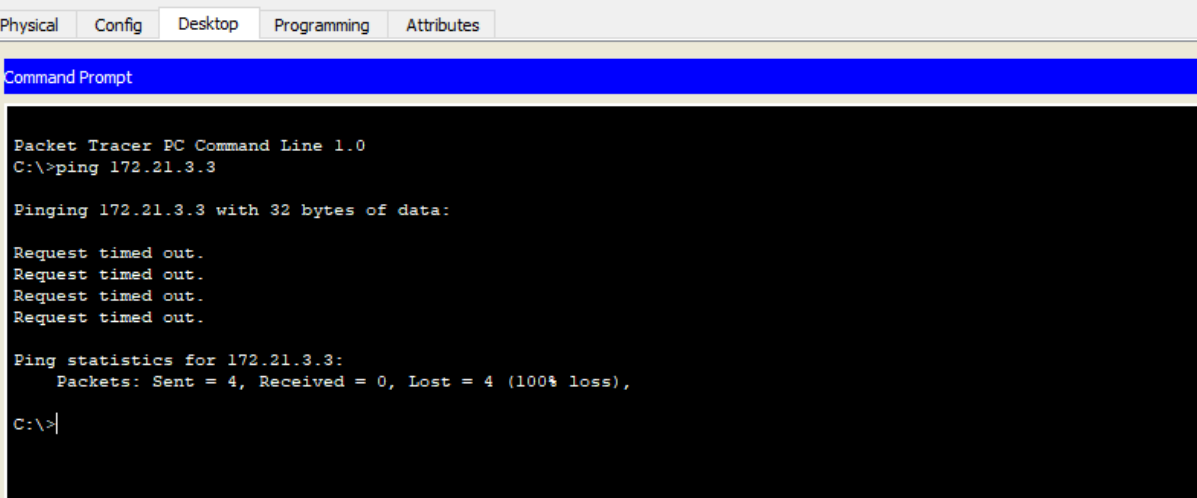
Ctrl+F6 to exit CLI focus

7A: Penjelasan

Hasil yang diperoleh pada mode privileged pada switch 1 yaitu pada vlans allowed on trunk mempunyai nilai 1-1005 pada port fa 0/7 yang artinya menggunakan jaringan skala kecil dan menengah. Vlan allowed and active in management domain (config untuk manajemen switch) memiliki nilai 1,10,20,30. vlans spanning tree forwarding state and not pruned mempunyai nilai 1,10,20,30.

Mempunyai status trunking mode on, encapusilation 802.1q (protokol umum yang didukung oleh banyak vektor)

8. ping PC leo dan PC pisces

Penjelasan :

Hasil ping dari pc leo ke pc pisces bukanlah reply, tetapi request timed out (RTO), karena permintaan koneksi yang lama dan subnet address nya sudah berbeda.

9.

10. pada Mode privileged

IOS Command Line Interface

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#interface fa 0/7
Switch(config-if)#sw mode trunk
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    Fa0/6, 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    Fa0/1, Fa0/2
20   zodiak2                          active    Fa0/3, Fa0/4
30   zodiak3                          active    Fa0/5
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 Transl Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
30   enet  100030     1500  -      -      -        -    -        0      0
 --More--
```

Ctrl+F6 to exit CLI focus

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

Switch#show interface trunk
Port         Mode          Encapsulation  Status       Native vlan
Fa0/7        on            802.1q         trunking     1

Port         Vlans allowed on trunk
Fa0/7        1-1005

Port         Vlans allowed and active in management domain
Fa0/7        1,10,20,30

Port         Vlans in spanning tree forwarding state and not pruned
Fa0/7        1,10,20,30

Switch#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    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    Fa0/1, 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 Trans1 Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ ------
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
30   enet  100030     1500  -      -      -        -    -        0      0
 --More--
```

Ctrl+F6 to exit CLI focus

Penjelasan 10A :

Hasil yang diperoleh pada mode privileged pada switch 1 yaitu pada vlans allowed on trunk mempunyai nilai 1-1005 pada port fa 0/7 yang artinya menggunakan jaringan skala kecil dan menengah. Vlan allowed and active in management domain (config untuk manajemen switch) memiliki nilai 1,10,20,30. vlans spanning tree forwarding state and not pruned mempunyai nilai 1,10,20,30.

Mempunyai status trunking mode on, encapusilation 802.1q (protokol umum yang didukung oleh banyak vektor)

11.

12.

a) Ping PC leo ke PC aries

b) Ping PC leo ke PC aquarius

```
C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

c) Ping PC leo ke PC pisces

```
C:\>ping 172.21.3.4

Pinging 172.21.3.4 with 32 bytes of data:

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

Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

d) Ping PC libra ke PC cancer

```
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:\>
```

e) Ping PC libra ke PC leo

```
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:\>
```

12A:

Penjelasan :

Hasil ping PC leo ke PC pisces adalah request time out permintaan koneksi yang lama dan karena subnet address nya sudah berbeda.