

LAPORAN PRAKTIKUM 6

Jaringan Komputer



Disusun Oleh :

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- The screenshot displays the Cisco Packet Tracer interface. The main workspace shows a network topology with a central Switch0 connected to a Router-PT (Router0) and three groups of PCs. The PCs are organized into three color-coded boxes: purple (left), green (bottom), and orange (right). The bottom status bar indicates the time is 00:37:04. The bottom right panel shows a 'Realtime' button and a table of network events.
- | Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------|-------------|--------|-------------|------|-------|-----------|----------|-----|--------|----------|
| ● | Successful | PC0 | PC3 | ICMP | ■ | 0.000 | N | 4 | (edit) | (delete) |
| ● | Successful | PC0 | PC3 | ICMP | ■ | 0.000 | N | 5 | (edit) | (delete) |
| ● | Successful | PC0 | PC6 | ICMP | ■ | 0.000 | N | 6 | (edit) | (delete) |

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|-------------------------|----------------------------|-------------------------|----------------------------|-------------------------|-----------------------------|
| IP Address: | 200.100.1.1 | IP Address: | 200.115.1.1 | IP Address: | 200.120.1.1 |
| Network Address: | 200.100.1.0 | Network Address: | 200.115.1.0 | Network Address: | 200.120.1.0 |
| Usable Host IP Range: | 200.100.1.1 - 200.100.1.62 | Usable Host IP Range: | 200.115.1.1 - 200.115.1.14 | Usable Host IP Range: | 200.120.1.1 - 200.120.1.126 |
| Broadcast Address: | 200.100.1.63 | Broadcast Address: | 200.115.1.15 | Broadcast Address: | 200.120.1.127 |
| Total Number of Hosts: | 64 | Total Number of Hosts: | 16 | Total Number of Hosts: | 128 |
| Number of Usable Hosts: | 62 | Number of Usable Hosts: | 14 | Number of Usable Hosts: | 126 |
| Subnet Mask: | 255.255.255.192 | Subnet Mask: | 255.255.255.240 | Subnet Mask: | 255.255.255.128 |

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- The image displays three screenshots of the Cisco Packet Tracer interface, showing the configuration of three PCs (PC0, PC1, and PC2) under the 'Desktop' tab. Each PC configuration includes IP settings for the FastEthernet0 interface and IPv6 settings for the same interface.
- PC0 Configuration:**
- Interface: FastEthernet0
 - IP Configuration:
 - ☐ DHCP
 - ☒ Static
 - IPv4 Address: 200.100.1.10
 - Subnet Mask: 255.255.255.192
 - Default Gateway: 200.100.1.1
 - DNS Server: 0.0.0.0
 - IPv6 Configuration:
 - ☐ Automatic
 - ☒ Static
 - IPv6 Address:
 - Link Local Address: FE80::210:11FF:F
 - Default Gateway:
 - DNS Server:
 - 802.1X:
 - ☐ Use 802.1X Security
 - Authentication: MD5
 - Username:
 - Password:
- PC1 Configuration:**
- Interface: FastEthernet0
 - IP Configuration:
 - ☐ DHCP
 - ☒ Static
 - IPv4 Address: 200.100.1.11
 - Subnet Mask: 255.255.255.192
 - Default Gateway: 200.100.1.1
 - DNS Server: 0.0.0.0
 - IPv6 Configuration:
 - ☐ Automatic
 - ☒ Static
 - IPv6 Address:
 - Link Local Address: FE80::20C:85FF:F
 - Default Gateway:
 - DNS Server:
 - 802.1X:
 - ☐ Use 802.1X Security
 - Authentication: MD5
 - Username:
 - Password:
- PC2 Configuration:**
- Interface: FastEthernet0
 - IP Configuration:
 - ☐ DHCP
 - ☒ Static
 - IPv4 Address: 200.100.1.12
 - Subnet Mask: 255.255.255.192
 - Default Gateway: 200.100.1.1
 - DNS Server: 0.0.0.0
 - IPv6 Configuration:
 - ☐ Automatic
 - ☒ Static
 - IPv6 Address:
 - Link Local Address: FE80::201:64FF:FE19:D81B
 - Default Gateway:
 - DNS Server:
 - 802.1X:
 - ☐ Use 802.1X Security
 - Authentication: MD5
 - Username:
 - Password:
- A 'Copilot (preview)' button is visible at the bottom center of the image.

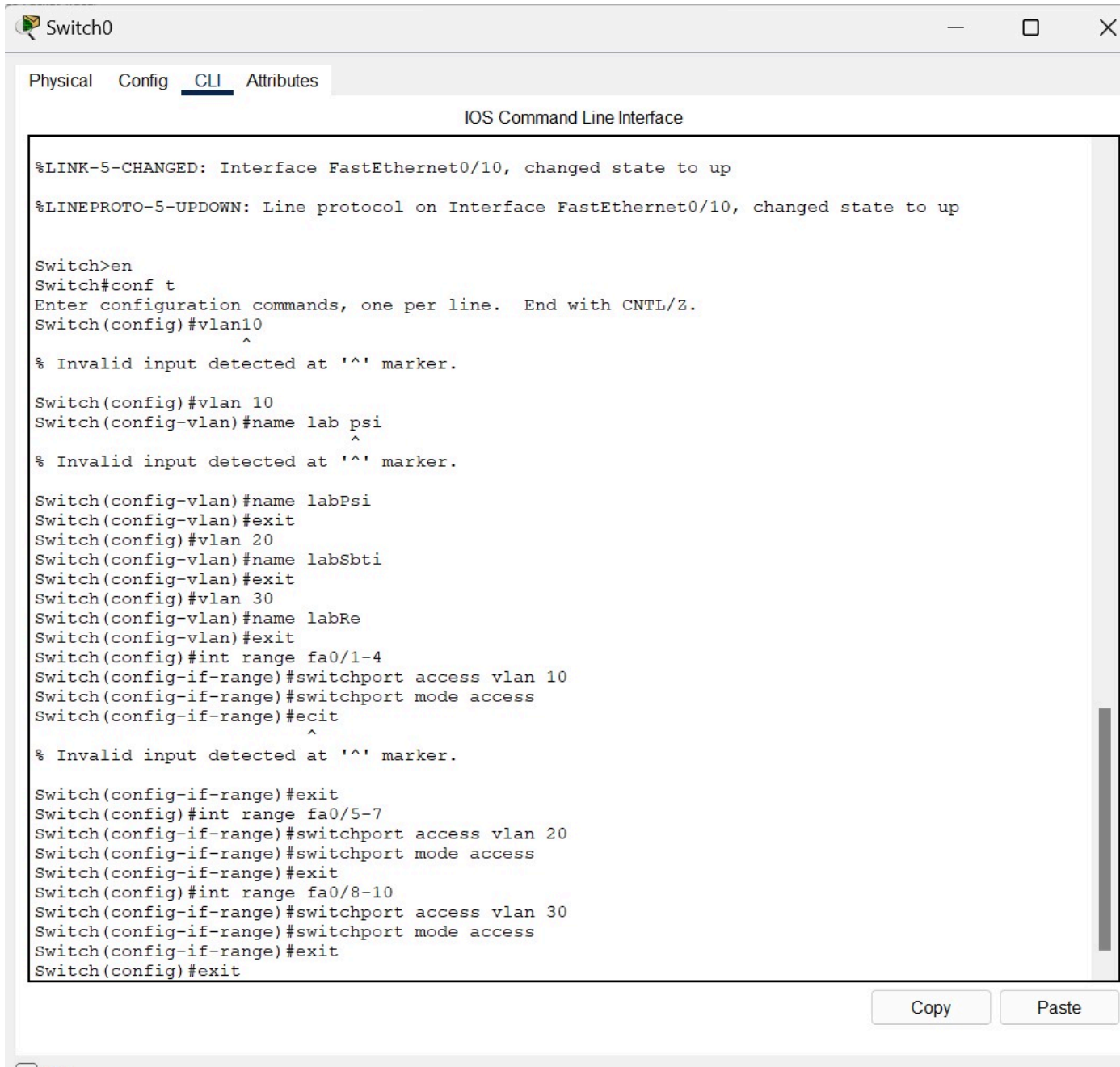
vlan 20 :

PC3	PC4	PC5
<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.115.1.10</p> <p>Subnet Mask 255.255.255.240</p> <p>Default Gateway 200.115.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::200:2FFF:F</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>	<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.115.1.11</p> <p>Subnet Mask 255.255.255.240</p> <p>Default Gateway 200.115.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::2E0:8FFF:F</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>	<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.115.1.1</p> <p>Subnet Mask 255.255.255.240</p> <p>Default Gateway 200.115.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::200:3EFF:FE8C:2899</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>

vlan 30 :

PC6	PC7	PC8
<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.120.1.10</p> <p>Subnet Mask 255.255.255.128</p> <p>Default Gateway 200.120.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::201:90FF:F</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>	<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.120.1.11</p> <p>Subnet Mask 255.255.255.128</p> <p>Default Gateway 200.120.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::201:43FF:F</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>	<p>Physical Config Desktop Programming Attributes</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IPv4 Address 200.120.1.12</p> <p>Subnet Mask 255.255.255.128</p> <p>Default Gateway 200.120.1.1</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> Automatic <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80::2E0:A3FF:FE70:4BA6</p> <p>Default Gateway</p> <p>DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication MD5</p> <p>Username</p> <p>Password</p>

4. Lakukan setting pada switch :



```
%LINK-5-CHANGED: Interface FastEthernet0/10, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/10, changed state to up

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan10
      ^
% Invalid input detected at '^' marker.

Switch(config)#vlan 10
Switch(config-vlan)#name lab psi
      ^
% Invalid input detected at '^' marker.

Switch(config-vlan)#name labPsi
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name labSbti
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name labRe
Switch(config-vlan)#exit
Switch(config)#int range fa0/1-4
Switch(config-if-range)#switchport access vlan 10
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#ecit
      ^
% Invalid input detected at '^' marker.

Switch(config-if-range)#exit
Switch(config)#int range fa0/5-7
Switch(config-if-range)#switchport access vlan 20
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#exit
Switch(config)#int range fa0/8-10
Switch(config-if-range)#switchport access vlan 30
Switch(config-if-range)#switchport mode access
Switch(config-if-range)#exit
Switch(config)#exit
```

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```
Switch(config)#int fa0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#no shutdown
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	Fa0/11, 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	labPsi	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4
20	labSbti	active	Fa0/5, Fa0/6, Fa0/7
30	labRe	active	Fa0/8, Fa0/9, Fa0/10
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
1002	fddi	101002	1500	-	-	-	-	-	0	0

```
--More--
```

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5. Lakukan setting pada router :

Router0

PhysicalConfigCLIAttributes

IOS Command Line Interface

```
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int fa0/0
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)#exit
Router(config)#int fa0/0.10
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.10, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.10, changed state to up

Router(config-subif)#encap dot1Q 10
Router(config-subif)#ip add 200.100.1.1 255.255.255.192
Router(config-subif)#exit
Router(config)#int fa0/0.20
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.20, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.20, changed state to up

Router(config-subif)#encap dot1Q 20
Router(config-subif)#ip add 200.115.1.1 255.255.255.240
Router(config-subif)#exit
Router(config)#int fa0/0.30
Router(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/0.30, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0.30, changed state to up

Router(config-subif)#encap dot1Q 30
Router(config-subif)#ip add 200.120.1.1 255.255.255.128
Router(config-subif)#exit
Router(config)#
```

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6. Cek dengan mengirimkan paket :

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
	Successful	PC0	PC3	ICMP		0.000	N	4	(edit)	(delete)
	Successful	PC0	PC3	ICMP		0.000	N	5	(edit)	(delete)
	Successful	PC0	PC6	ICMP		0.000	N	6	(edit)	(delete)