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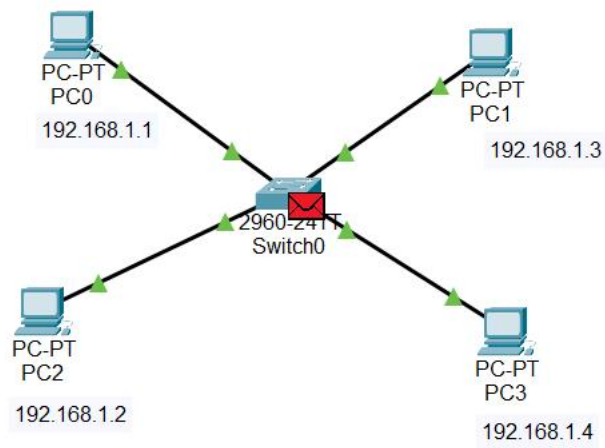
P20-0613

Sec 5A

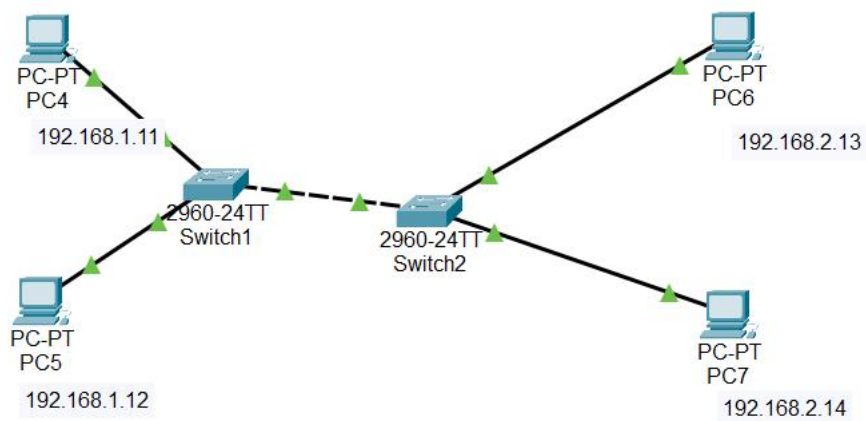
Computer Networks

LAB TASK<sub>3</sub>

### Task 1

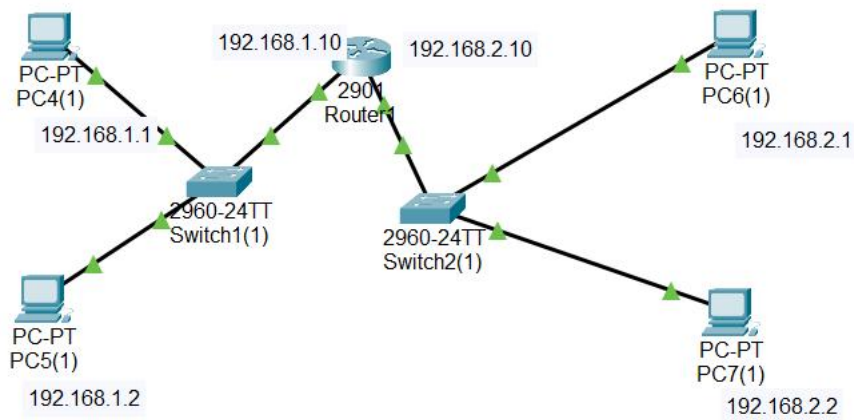


### Task 2

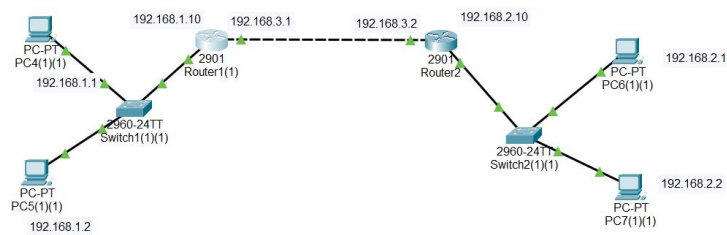


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### Task 3



### Task 4



Router1(1)

Physical Config CLI Attributes

**GLOBAL**

- Settings
- Algorithm Settings
- ROUTING**
- Static
- RIP
- SWITCHING**
- VLAN Database
- INTERFACE**
- GigabitEthernet0/0
- GigabitEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.2.0/24 via 192.168.3.2

Remove

Equivalent IOS Commands

```
Router(config)#ip address 192.168.3.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#
Router(config)#
```

Router2

Physical Config CLI Attributes

GLOBAL

Settings

Algorithm Settings

ROUTING

Static

RIP

SWITCHING

INTERFACE

GigabitEthernet0/0

GigabitEthernet0/1

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.1.0/24 via 192.168.3.10

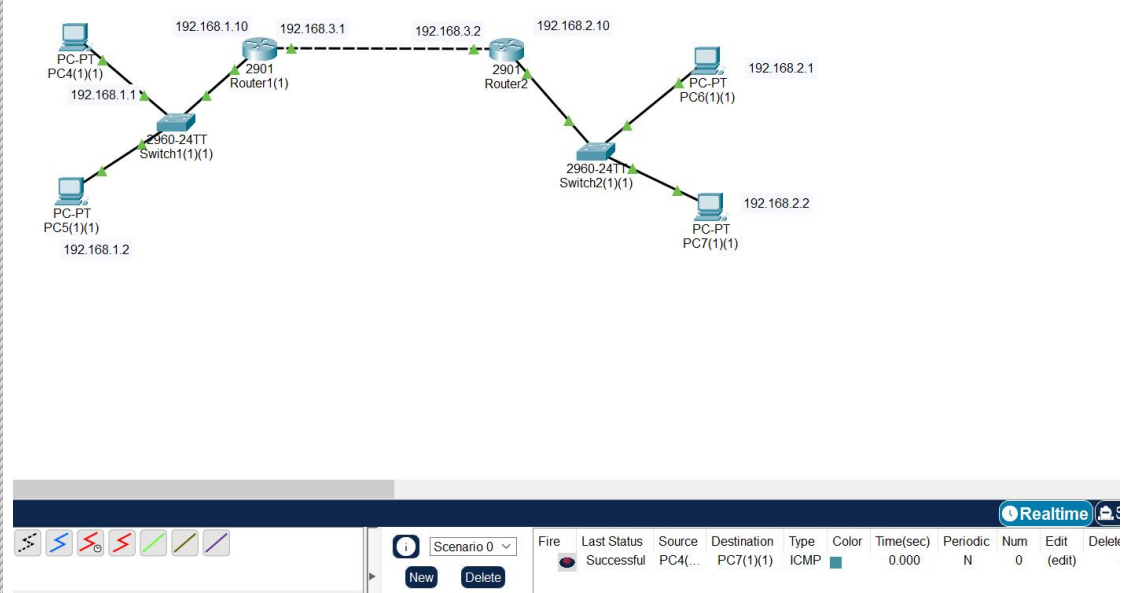
Remove

Equivalent IOS Commands

```

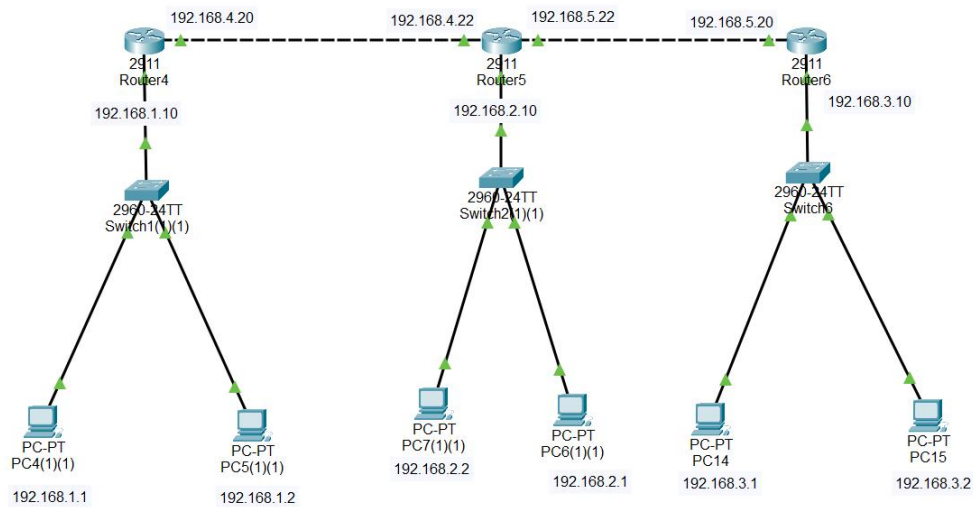
Router(config=Router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#
%SYS-5-CONFIG_I: Configured from console by console

```



## TASK 5

1) Here we have built the diagram and have assign the IP-Address of each PC and Router.



2) Here we have then give the path of router 4 to Router 5 and Router 6 by going in static.

The screenshot shows the configuration window for Router4. The 'Config' tab is selected, and the 'Static Routes' section is active. The 'Static Routes' table shows two entries:

| Network Address                 |
|---------------------------------|
| 192.168.2.0/24 via 192.168.4.22 |
| 192.168.3.0/24 via 192.168.4.22 |

Below the table, there is a 'Remove' button. At the bottom, the 'Equivalent IOS Commands' section shows the following commands:

```
Router(config)#  
Router(config-if)#exit  
Router(config)#interface GigabitEthernet0/0  
Router(config-if)#  
Router(config-if)#exit  
Router(config)#  
Router(config)#
```

iii) Same as done in (ii) but here for Router 5

The screenshot shows the 'Router5' configuration window with the 'Config' tab selected. The left sidebar shows a tree view with categories: GLOBAL, ROUTING, SWITCHING, and INTERFACE. Under ROUTING, 'Static' is selected. The main area is titled 'Static Routes' and contains input fields for 'Network', 'Mask', and 'Next Hop'. Below these is an 'Add' button. A list of configured static routes is shown below, with two entries: '192.168.1.0/24 via 192.168.4.20' and '192.168.3.0/24 via 192.168.5.20'. A 'Remove' button is at the bottom right of the list. At the bottom of the window, there is a 'Top' button and a section for 'Equivalent IOS Commands' containing a terminal-like text area with the following commands: Router>enable, Router#, Router#configure terminal, Enter configuration commands, one per line. End with CNTL/Z., Router(config)#, Router(config)#.

Router5

Physical **Config** CLI Attributes

**GLOBAL**

Settings

Algorithm Settings

**ROUTING**

Static

RIP

**SWITCHING**

VLAN Database

**INTERFACE**

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.1.0/24 via 192.168.4.20

192.168.3.0/24 via 192.168.5.20

Remove

Equivalent IOS Commands

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#
Router(config)#
```

☐ Top

iv) Same as (ii) but for Router 6

The screenshot shows the 'Router6' configuration window with the 'Config' tab selected. The left sidebar shows a tree view with categories: GLOBAL, ROUTING, SWITCHING, and INTERFACE. Under ROUTING, 'Static' is selected. The main area is titled 'Static Routes' and contains input fields for 'Network', 'Mask', and 'Next Hop'. Below these is an 'Add' button. A list of configured static routes is shown below, with two entries: '192.168.2.0/24 via 192.168.5.22' and '192.168.1.0/24 via 192.168.5.22'. A 'Remove' button is at the bottom right of the list. At the bottom of the window, there is a 'Top' button and a section for 'Equivalent IOS Commands' containing a terminal-like text area with the following commands: Router(config)#, Router(config)#ip route 192.168.1.0 255.255.255.0 192.168.5.22, Router(config)#, Router(config)#, Router(config)#, Router(config)#.

Router6

Physical **Config** CLI Attributes

**GLOBAL**

Settings

Algorithm Settings

**ROUTING**

Static

RIP

**SWITCHING**

VLAN Database

**INTERFACE**

GigabitEthernet0/0

GigabitEthernet0/1

GigabitEthernet0/2

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.2.0/24 via 192.168.5.22

192.168.1.0/24 via 192.168.5.22

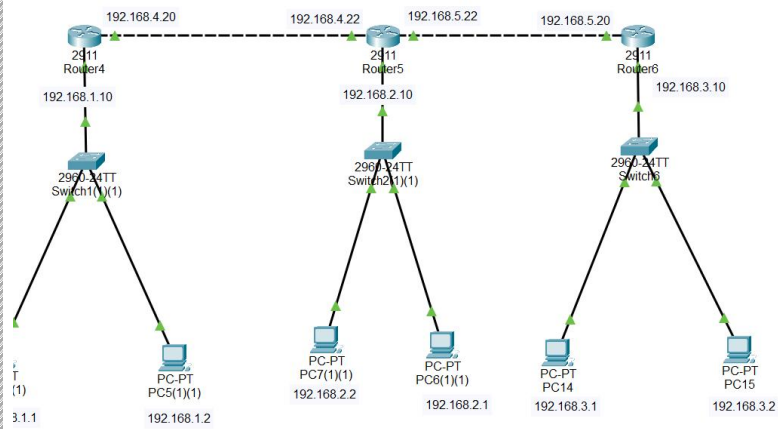
Remove

Equivalent IOS Commands

```
Router(config)#
Router(config)#ip route 192.168.1.0 255.255.255.0 192.168.5.22
Router(config)#
Router(config)#
Router(config)#
Router(config)#
```

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Here we can see that our msg is sent to PC4 to PC14 without error.



The screenshot shows the 'Realtime' table with the following data:

| Fire | Last Status | Source   | Destination | Type | Color | Time(sec) | Periodic | Num | Edit   |
|------|-------------|----------|-------------|------|-------|-----------|----------|-----|--------|
|      | Successful  | PC4(...) | PC15        | ICMP |       | 0.000     | N        | 0   | (edit) |