

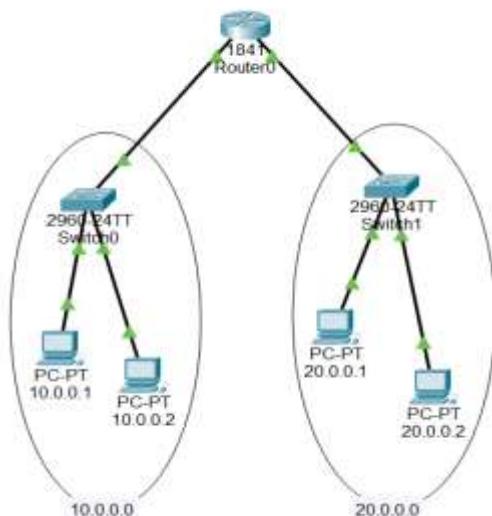
Date: 25/08/2025

## **Lab Practical #11:**

Study the concept of routing using packet tracer. (Dynamic Routing)

# Practical Assignment #11:

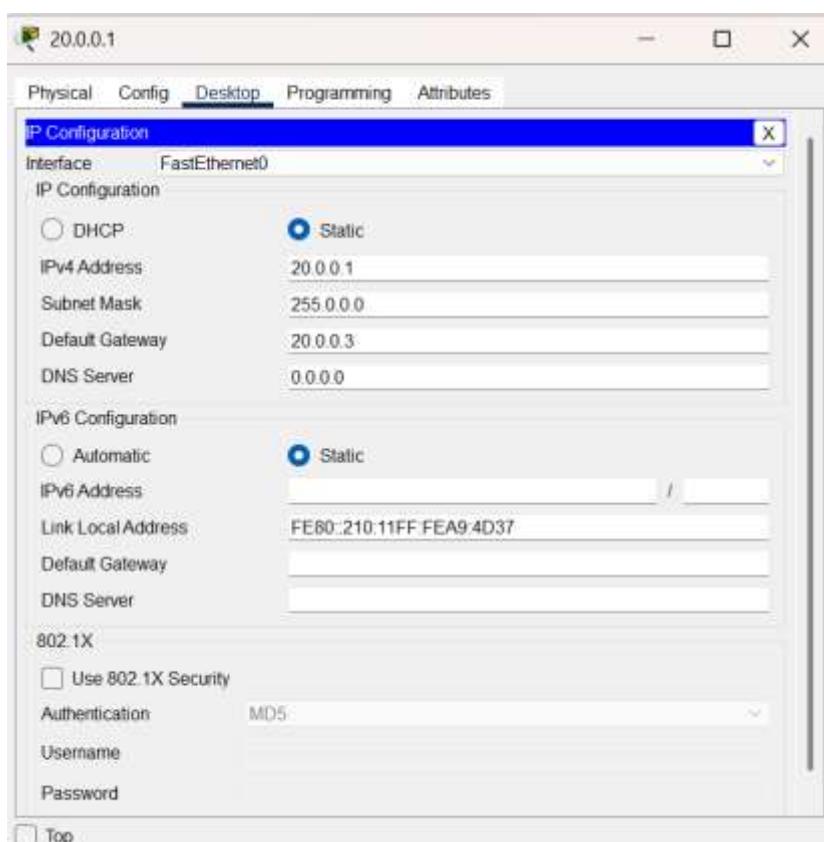
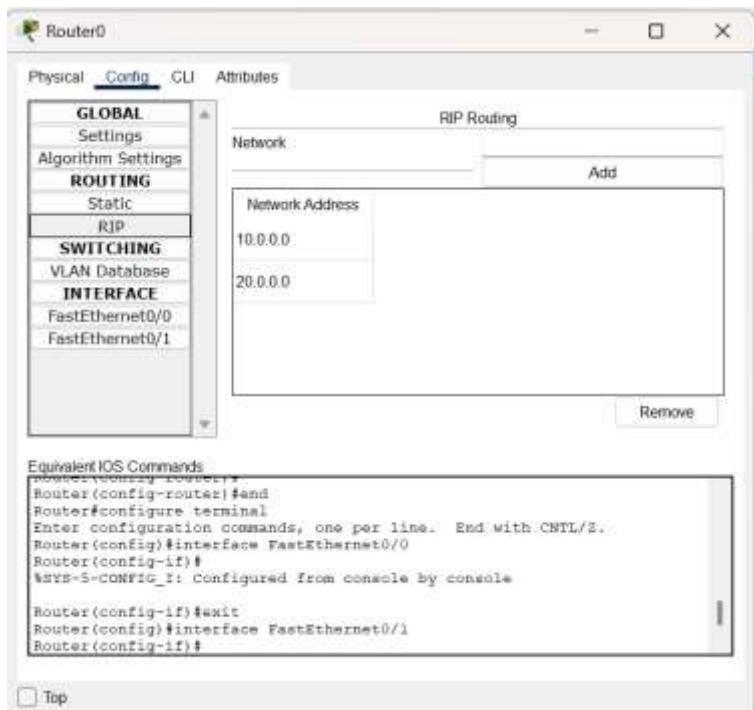
1. Connect the two different networks based on the calculated IP addresses and subnet using a packet tracer.



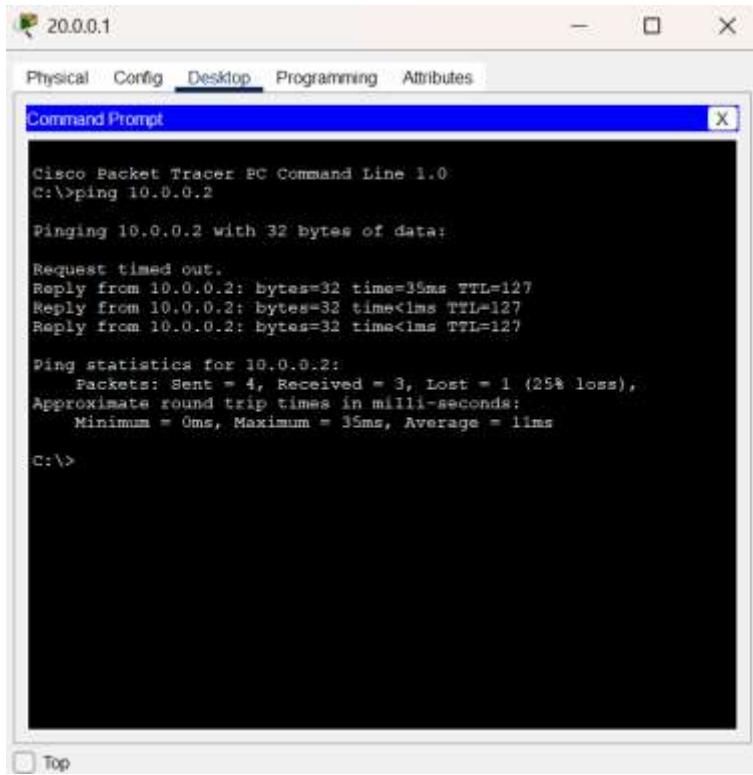
Physical		Config	CLI	Attributes
<b>GLOBAL</b> <a href="#">Settings</a> <a href="#">Algorithm Settings</a>				
<b>ROUTING</b>				
Static				<input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto
RIP				<input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto
<b>SWITCHING</b>				
VLAN Database				
<b>INTERFACE</b>				
FastEthernet0/0				
FastEthernet0/1				
FastEthernet0/1				
Port Status				
Bandwidth				<input checked="" type="radio"/> 100 Mbps <input type="radio"/> 10 Mbps <input checked="" type="checkbox"/> Auto
Duplex				<input type="radio"/> Half Duplex <input checked="" type="radio"/> Full Duplex <input checked="" type="checkbox"/> Auto
MAC Address				0090.2B86.AE02
IP Configuration				
IPv4 Address				20.0.0.3
Subnet Mask				255.0.0.0
Tx Ring Limit				10
Equivalent IOS Commands				
<pre>Router#configure terminal Router(config-router)#end Router#configure terminal Enter configuration commands, one per line. End with CRTL/Z. Router(config)#interface FastEthernet0/0 Router(config-if)# %SYS-5-CONFIG_I: Configured from console by console  Router(config-if)#exit Router(config)#interface FastEthernet0/1 Router(config-if)# </pre>				



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20.0.0.1

Physical Config Desktop Programming Attributes

Command Prompt X

```
Cisco Packet Tracer PC Command Line 1.0
c:\>ping 10.0.0.2

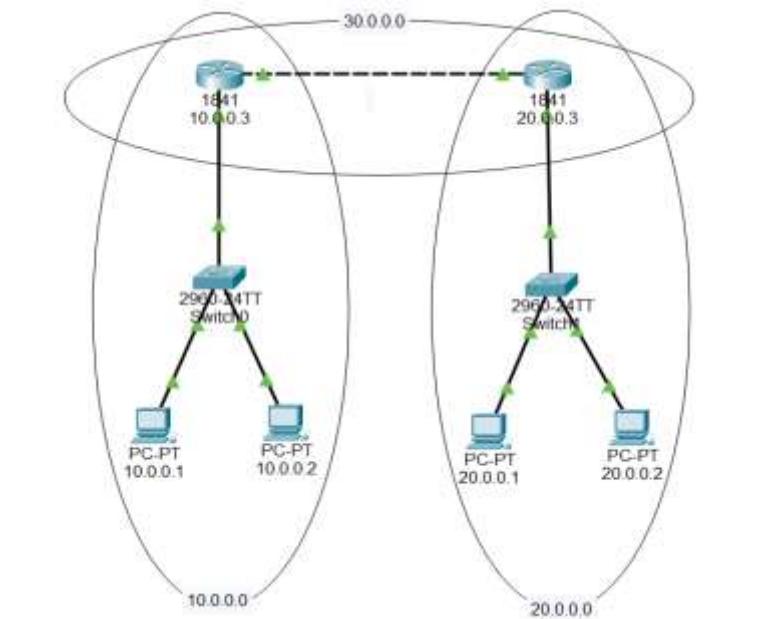
Pinging 10.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 10.0.0.2: bytes=32 time=35ms TTL=127
Reply from 10.0.0.2: bytes=32 time<1ms TTL=127
Reply from 10.0.0.2: bytes=32 time<1ms TTL=127

Ping statistics for 10.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 35ms, Average = 11ms

c:\>
```

2. Connect the three different networks based on the calculated IP addresses and subnet using a packet tracer.



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**ROUTING**

**SWITCHING**

**INTERFACE**

**FastEthernet0/0**

**FastEthernet0/1**

**EquivalentIOS Commands**

```
Router>enable
Router#configure terminal
Router(config)#interface fastethernet 0/0
Router(config-if)#ip address 10.0.0.3 255.0.0.0
Router(config-if)#exit
Router(config)#exit
Router#configure terminal
Router(config)#network 10.0.0.0
Router(config)#network 30.0.0.0
Router(config)#exit
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
```

The screenshot shows the configuration interface for Router0. The left sidebar lists global settings, algorithm, routing (Static, RIP), switching, VLAN database, and interfaces (FastEthernet0/0, FastEthernet0/1). The 'ROUTING' section is expanded, and 'RIP' is selected. The main pane displays 'RIP Routing' settings, specifically 'Network' entries. It shows two network addresses: 10.0.0.0 and 30.0.0.0. There are 'Add' and 'Remove' buttons at the bottom right of the list.

Equivalent IOS Commands

```
Router#config terminal
Router(config)#ip subnet-zero
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#ip address 30.0.0.1 255.0.0.0
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 10.0.0.0
Router(config-router)#network 30.0.0.0
```



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