

## Experiment 2.4

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**Subject Name:**Computer Networking Lab

**Subject Code:** 22E-20CSP-257

### 1) Aim/Overview of the practical:

Create a network using Distance Vector routing Protocol using Packet Tracer.

### 2) Task to be done/ Which logistics used:

To create a network using Distance Vector routing Protocol using Packet Tracer.

Cisco Packet Tracer

### 3) Steps for experiment/practical/Code:

- 1.Developed a topology of network.
- 2.Configured all the Routers and PCs.
- 3.Implemented RIP protocols in router to configure network

#### Router0:

```
Router>enable
```

```
Router#
```

```
Router#configure terminal
```

Enter configuration commands, one per line. End with CNTL/Z.

```
Router(config)#interface FastEthernet0/0
```

```
Router(config-if)#ip address 192.168.10.2 255.255.255.0
```

```
Router(config-if)#ip address 192.168.10.1 255.255.255.0
```

```
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)#
```

Router(config-if)#exit

Router(config)#interface Serial2/0

Router(config-if)#ip address 10.0.0.2 255.0.0.0

Router(config-if)#clock rate 64000

This command applies only to DCE interfaces

Router(config-if)#no shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#

Router(config-if)#exit

Router(config)#router rip

Router(config-router)#network 192.168.10.0

Router(config-router)#network 10.0.0.0

Router(config-router)#

Router(config-router)#

## Router 1:

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#ip address 192.168.20.1 255.255.255.0
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
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)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 10.0.0.3 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#ip address 20.0.0.2 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
```

```
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#network 192.168.20.0
Router(config-router)#network 10.0.0.0
Router(config-router)#
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
network 20.0.0.0
Router(config-router)#
%LINK-5-CHANGED: Interface Serial3/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to up

%LINK-3-UPDOWN: Interface Serial3/0, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/0, changed state to down

Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial3/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
```

## Router 2:

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.30.1 255.255.255.0
Router(config-if)#ip address 192.168.30.1 255.255.255.0
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)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 20.0.0.3 255.0.0.0
Router(config-if)#clock rate 64000
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#router rip
Router(config-router)#
%SYS-5-CONFIG_I: Configured from console by console
network 192.168.30.0
Router(config-router)#network 20.0.0.0
Router(config-router)#
Router(config-router)#end
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
```

```
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial3/0
Router(config-if)#ip address 20.0.0.3 255.0.0.0
Router(config-if)#shutdown
Router(config-if)#ip address
% Incomplete command.
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial2/0
Router(config-if)#ip address 20.0.0.3 255.0.0.0
Router(config-if)#ip address 20.0.0.3 255.0.0.0
Router(config-if)#clock rate 64000
This command applies only to DCE interfaces
Router(config-if)#no shutdown
Router(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up
```

```
Router(config-if)#exit
Router(config)#router rip
Router(config-router)#no network 20.0.0.0
Router(config-router)#
Router(config-router)#end
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface Serial2/0
Router(config-if)#
%SYS-5-CONFIG_I: Configured from console by console
shutdown
Router(config-if)#clock rate 64000
This command applies only to DCE interfaces
```

Router(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to administratively down

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to down

Router(config-if)#exit

Router(config)#router rip

Router(config-router)#network 20.0.0.0

Router(config-router)#

Router(config-router)#

Router(config-router)#end

Router#configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#interface Serial2/0

Router(config-if)#

%SYS-5-CONFIG\_I: Configured from console by console

no shutdown

Router(config-if)#

%LINK-5-CHANGED: Interface Serial2/0, changed state to up

Router(config-if)#exit

Router(config)#interface Serial3/0

Router(config-if)#

Router(config-if)#exit

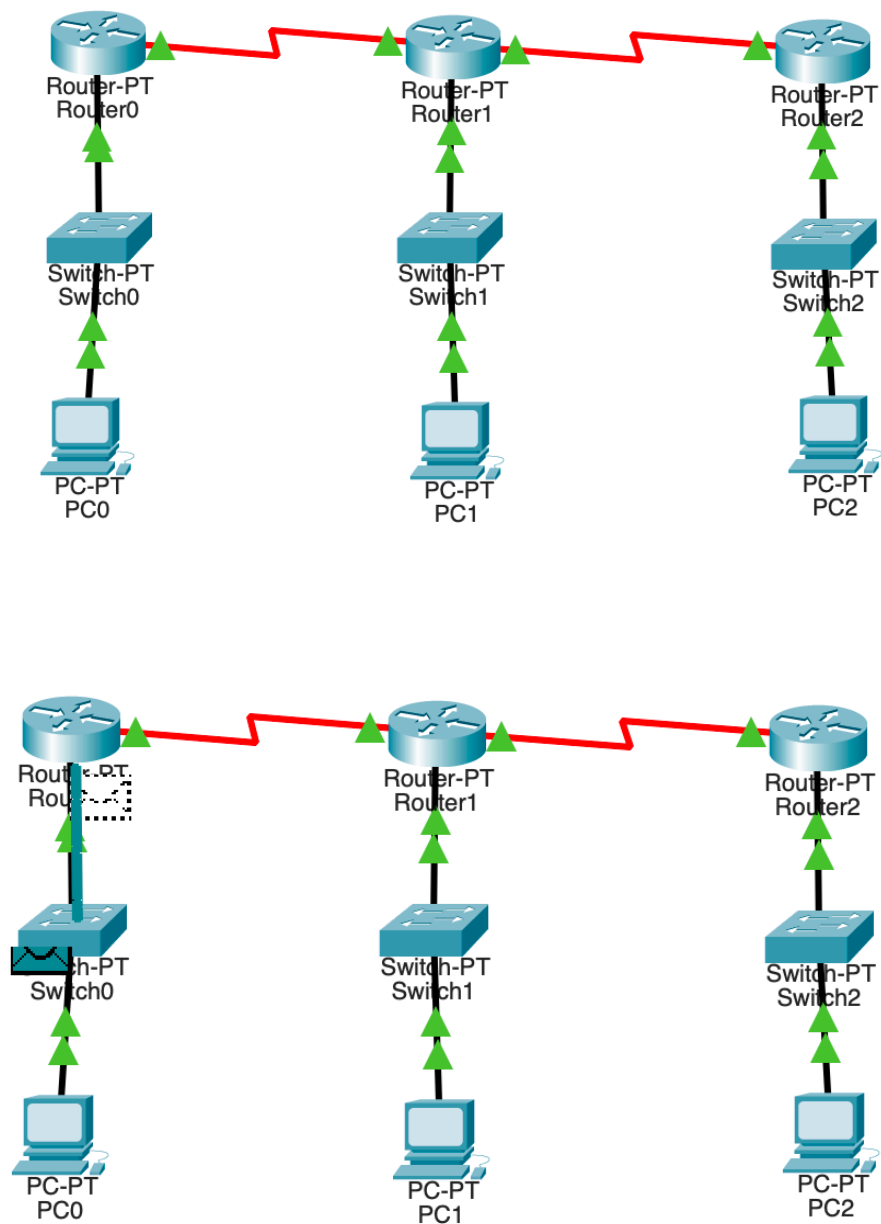
Router(config)#interface FastEthernet0/0

Router(config-if)#

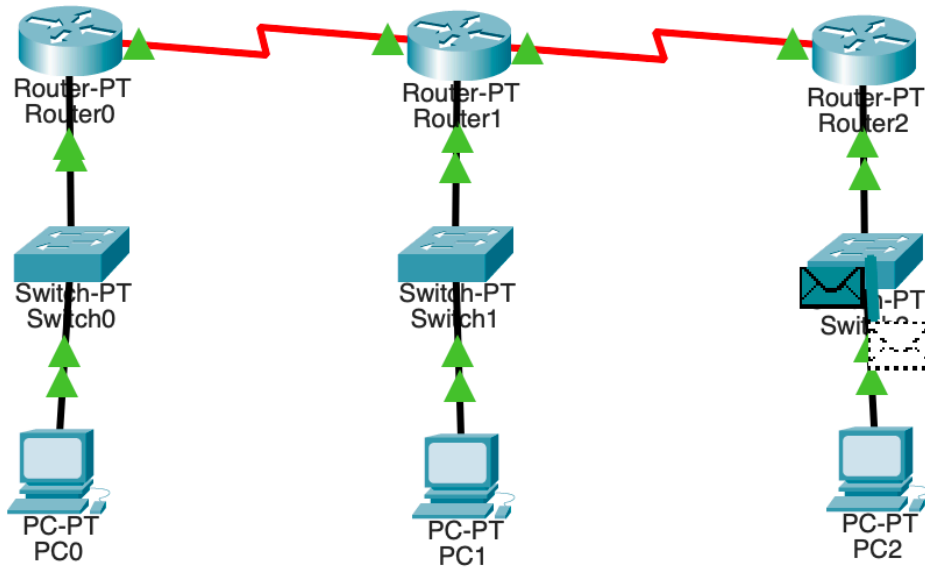
%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up



#### 4. Result/Output/Writing Summary:



## Outcome:



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**Learning outcomes (What I have learnt):**

- 1. Learnt about Cisco Packet Tracer.**
- 2. Learnt how the packets are transferred/travels.**
- 3. Learnt about RIP routing.**
- 4. Learnt about static routing.**
- 5. Learnt how to configure routers.**

**Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):**

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			