Practical 2

AIM:-

(a) Perform logging into router.
(b) Perform using help and editing features.
(c) Saving router configuration.
(d) Perform setting of password.

SOLUTION:-

(a) Perform logging into router.

```
          --- System Configuration Dialog ---

Continue with configuration dialog? [yes/no]: y

At any point you may enter a question mark '?' for help.
Use ctrl-c to abort configuration dialog at any prompt.
Default settings are in square brackets '[]'.


Basic management setup configures only enough connectivity
for management of the system, extended setup will ask you
to configure each interface on the system

Would you like to enter basic management setup? [yes/no]: y
Configuring global parameters:

  Enter host name [Router]: mudit

  The enable secret is a password used to protect access to
  privileged EXEC and configuration modes. This password, after
  entered, becomes encrypted in the configuration.
  Enter enable secret: abc

  The enable password is used when you do not specify an
  enable secret password, with some older software versions, and
  some boot images.
  Enter enable password: def

  The virtual terminal password is used to protect
  access to the router over a network interface.
  Enter virtual terminal password: ghi

Current interface summary

Interface              IP-Address      OK? Method Status
Protocol
```

```
FastEthernet0/0        unassigned      YES manual administratively down down

Enter interface name used to connect to the
management network from the above interface summary: fastethernet0/0

Configuring interface FastEthernet0/0:
    Configure IP on this interface? [yes]: y
    IP address for this interface: 10.0.0.1
    Subnet mask for this interface [255.0.0.0] :

The following configuration command script was created:

!
hostname mudit
enable secret 5 $1$mERr$Dbe7RlLE8b8xdz/DJoO0U0
enable password def
line vty 0 4
password ghi
!
interface FastEthernet0/0
 no shutdown
ip address 10.0.0.1 255.0.0.0
!
end

[0] Go to the IOS command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to nvram and exit.

Enter your selection [2]: 2
Building configuration...

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up[OK]
Use the enabled mode 'configure' command to modify this configuration.


Press RETURN to get started!



mudit>en
Password:
mudit#show run
Building configuration...

Current configuration : 324 bytes
!
version 12.2
no service password-encryption
!
hostname mudit
!
!
enable secret 5 $1$mERr$Dbe7RlLE8b8xdz/DJoO0U0
enable password def
```

```
!
!
!
!
ip ssh version 1
!
!
interface FastEthernet0/0
 ip address 10.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
ip classless
!
!
!
!
!
line con 0
line vty 0 4
 password ghi
 login
!
!
end
```

(b) Perform using help and editing features.

```
You can use the Cisco advanced editing features to help you configure your
router. If you type
in a question mark (?) at any prompt, you'll be given a list of all the
commands available from
that prompt:

Router#?

Exec commands:

access-enable      : Create a temporary Access-List entry
access-profile     : Apply user-profile to interface
access-template    : Create a temporary Access-List entry
bfe                : For manual emergency modes setting
clear              : Reset functions
clock              : Manage the system clock
configure          : Enter configuration mode
connect            : Open a terminal connection
copy               : Copy configuration or image data
debug              : Debugging functions (see also 'undebug')
disable            : Turn off privileged commands
disconnect         : Disconnect an existing network connection
enable             : Turn on privileged commands
```

```
erase              : Erase flash or configuration memory
exit               : Exit from the EXEC
help               : Description of the interactive help syste
lock               : Lock the terminal
login              : Log in as a particular user
logout             : Exit from the EXEC
mrinfo             : Request neighbor and version information
                     from a multicast router


Enhanced Editing Commands

Command            : Meaning
Ctrl+A             : Moves your cursor to the beginning of the line
Ctrl+E             : Moves your cursor to the end of the line
Esc+B              : Moves back one word
Ctrl+B             : Moves back one character

You can review the router-command history with the commands shown in Table
4.2.

Ctrl+F             : Moves forward one character
Esc+F              : Moves forward one word
Ctrl+D             : Deletes a single character
Backspace          : Deletes a single character
Ctrl+R             : Redisplays a line
Ctrl+U             : Erases a line
Ctrl+W             : Erases a word
Ctrl+Z             : Ends configuration mode and returns to EXEC
Tab                : Finishes typing a command for you
Ctrl+P or Up arrow       : Shows last command entered
Ctrl+N or Down arrow     : Shows previous commands entered
show history       : Shows last 10 commands entered by default
show terminal      : Shows terminal configurations and history buffer size
terminal history size    : Changes buffer size (max 256)

Router>?
Exec commands:
  <1-99>      Session number to resume
  connect     Open a terminal connection
  disable     Turn off privileged commands
  disconnect  Disconnect an existing network connection
  enable      Turn on privileged commands
  exit        Exit from the EXEC
  logout      Exit from the EXEC
  ping        Send echo messages
  resume      Resume an active network connection
  show        Show running system information
  ssh         Open a secure shell client connection
  telnet      Open a telnet connection
  terminal    Set terminal line parameters
  traceroute  Trace route to destination
```

```
Router>show ?
  cdp          CDP information
  class-map    Show QoS Class Map
  clock        Display the system clock
  controllers  Interface controllers status
  crypto       Encryption module
  dot11        IEEE 802.11 show information
  flash:       display information about flash: file system
  frame-relay  Frame-Relay information
  history      Display the session command history
  hosts        IP domain-name, lookup style, nameservers, and host
table
  interfaces   Interface status and configuration
  ip           IP information
  ipv6         IPv6 information
  policy-map   Show QoS Policy Map
  privilege    Show current privilege level
  protocols    Active network routing protocols
  queue        Show queue contents
  queueing     Show queueing configuration
  sessions     Information about Telnet connections
  ssh          Status of SSH server connections
  tcp          Status of TCP connections
  terminal     Display terminal configuration parameters
```

(c)Saving router configuration.

```
mudit>enable
Password:
mudit#show run
Building configuration...

Current configuration : 538 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname mudit
!
!
!
enable secret 5 $1$mERr$Dbe7RlLE8b8xdz/DJoO0U0
enable password cde
!
!
```

```
!
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 11.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
!
!
!
!
!
!
line con 0
line vty 0 4
 password efg
 login
!
!
!
end


mudit#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
mudit#show startup-config
Using 538 bytes
!
version 12.4
```

```
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname mudit
!
!
!
enable secret 5 $1$mERr$Dbe7RlLE8b8xdz/DJoO0U0
enable password cde
!
!
!
!
!
!
!
!
!
```

(d)Perform setting of password.

```
mudit#config
Configuring from terminal, memory, or network [terminal]? terminal
Enter configuration commands, one per line.  End with CNTL/Z.
mudit(config)#enable password 123
mudit(config)#exit

%SYS-5-CONFIG_I: Configured from console by console
mudit#disable
mudit>enable
Password:
Password:
mudit#show running-config
Building configuration...

Current configuration : 538 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname mudit
!
!
!
enable secret 5 $1$mERr$Dbe7RlLE8b8xdz/DJoO0U0
enable password 123
!
!
!
!
!
```

```
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 11.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
!
!
!
!
!
!
line con 0
line vty 0 4
 password efg
 login
!
!
!
End
```

```
mudit#config
Configuring from terminal, memory, or network [terminal]? terminal
Enter configuration commands, one per line.  End with CNTL/Z.
mudit(config)#no enable secret
mudit(config)#exit
```

```
%SYS-5-CONFIG_I: Configured from console by console
mudit#enable
mudit#show running-config
Building configuration...

Current configuration : 491 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname mudit
!
!
!
enable password 123
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
!
interface FastEthernet0/0
 ip address 11.0.0.1 255.0.0.0
 duplex auto
 speed auto
!
interface FastEthernet0/1
 no ip address
 duplex auto
 speed auto
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
ip classless
!
!
!
!
!
```

```
!
!
line con 0
line vty 0 4
 password efg
 login
!
!
!
end
```

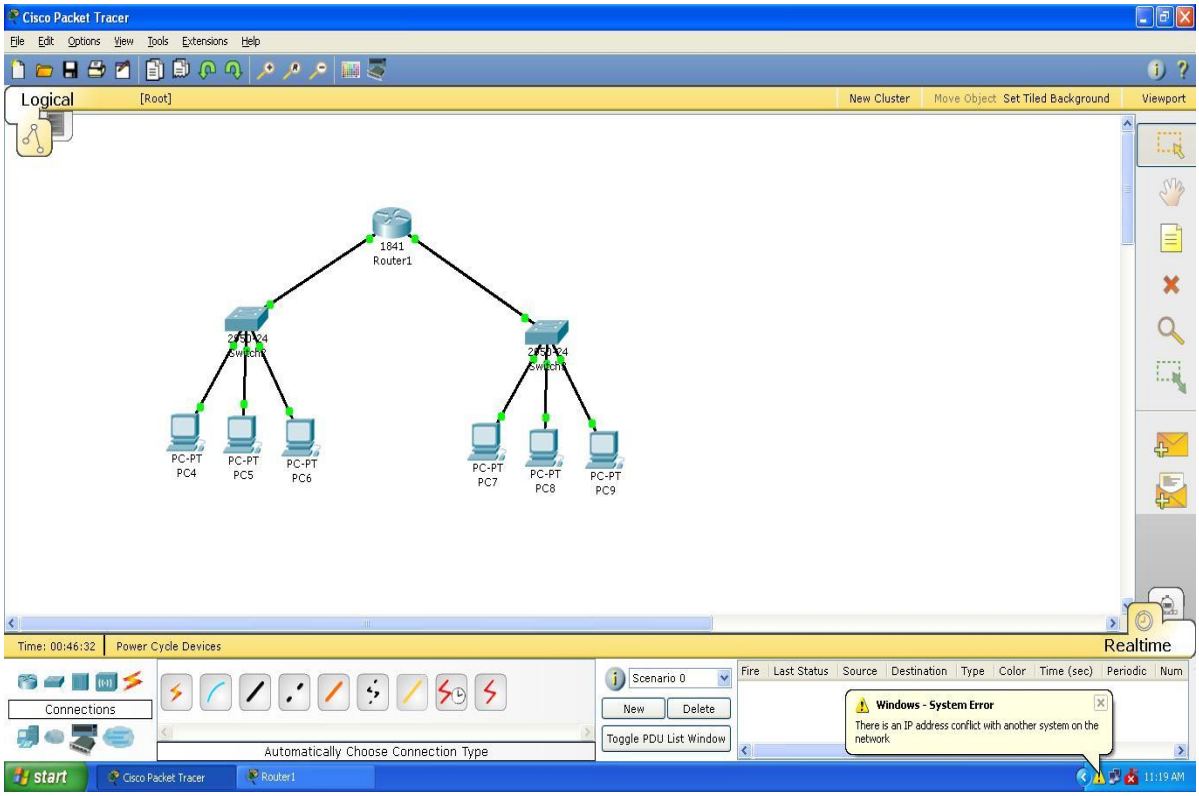
Practical 3

AIM:-

Configuration of hostname, banner and IP address.

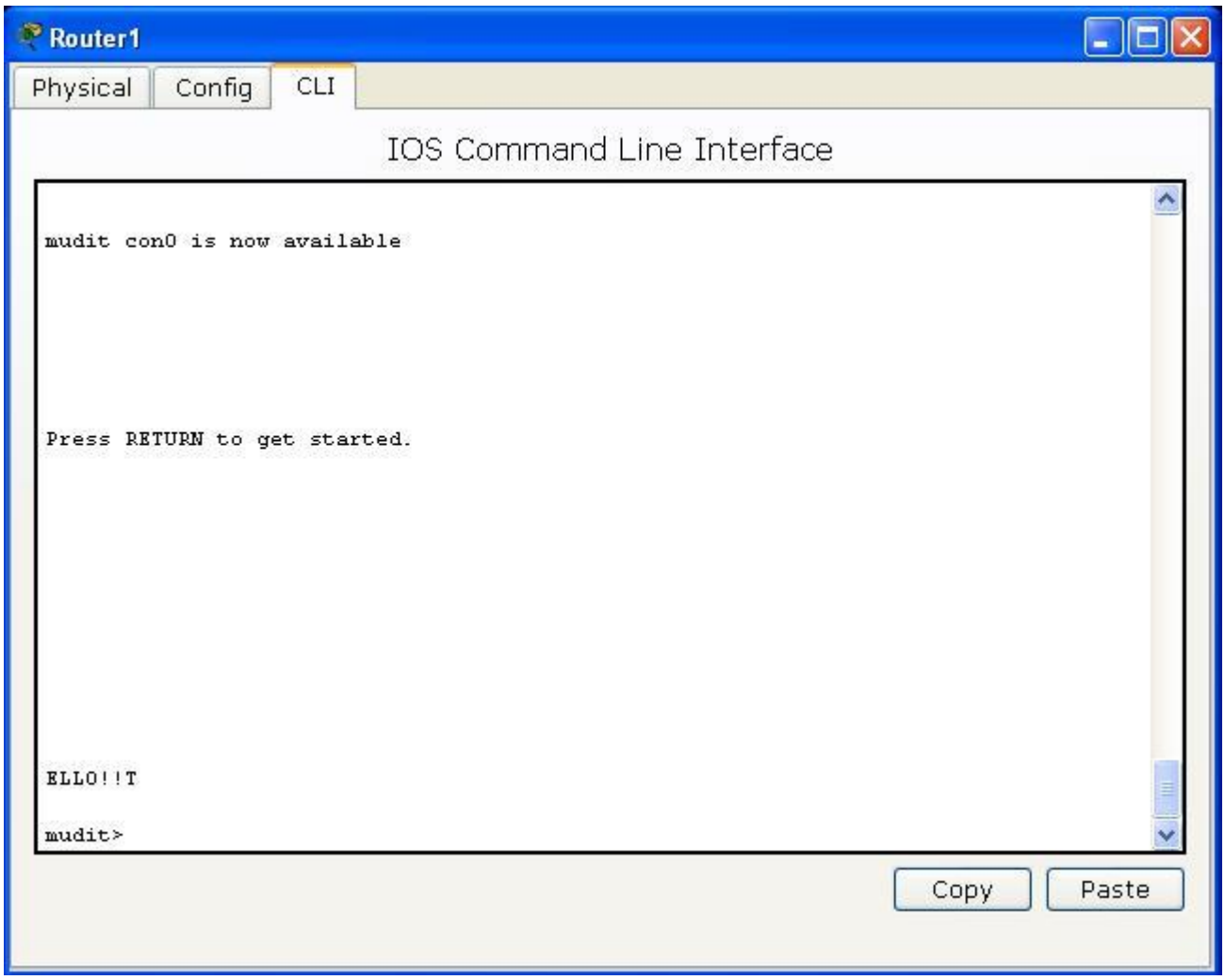
SOLUTION:-

Sr.no	Hostname	Port	ip-address	subnet mask
1	mudit	FE 0/0	192.168.2.4	255.255.255.0
2	mudit	FE 0/1	192.168.1.4	255.255.255.0
3	A	FE 0/1	192.168.2.1	255.255.255.0
4	B	FE 0/2	192.168.2.2	255.255.255.0
5	C	FE 0/3	192.168.2.3	255.255.255.0
6	D	FE 0/1	192.168.1.1	255.255.255.0
7	E	FE 0/2	192.168.1.2	255.255.255.0
8	F	FE 0/3	192.168.1.3	255.255.255.0



```
--- System Configuration Dialog ---

Continue with configuration dialog? [yes/no]: n


Press RETURN to get started!



Router>en
Router(config)#hostname mudit
mudit(config)#exit

%SYS-5-CONFIG_I: Configured from console by console
mudit#configure t
Enter configuration commands, one per line.  End with CNTL/Z.
mudit(config)#interface FastEthernet0/0
mudit(config-if)#ip address 192.168.1.4 255.255.255.0
mudit(config-if)#exit
mudit(config)#interface FastEthernet0/0
mudit(config-if)#ip address 192.168.1.4 255.255.255.0
mudit(config-if)#no shutdown

%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0,
changed state to up

mudit(config-if)#exit
mudit(config)#interface FastEthernet0/1
mudit(config-if)#ip address 192.168.2.4 255.255.255.0
mudit(config-if)#no shutdown

%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up

mudit(config-if)#exit
```

```
mudit(config)#banner ?
login  Set login banner
motd   Set Message of the Day banner
mudit(config)#banner motd HELLO!!THIS IS YOUR ROUTER!!HAVE A GOOD
DAY!!OH
mudit(config)#exit
```

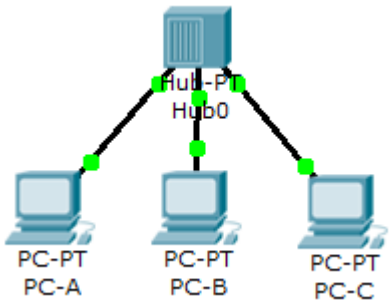


PRACTICAL-4

AIM : OBSERVE DATA FLOW, ARP & ICMP PACKET

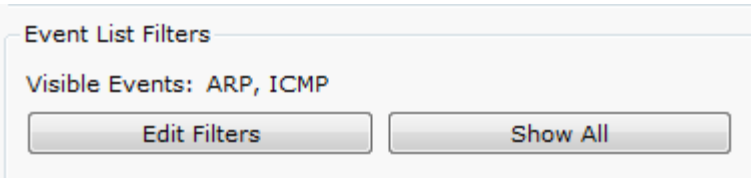
SOLUTION:

For initial step set the topology with 3 PCs and a hub and connect all the three PCs to the hub. Name the three PCs as PC-A, PC-B, PC-C for first second and the third PC respectively.



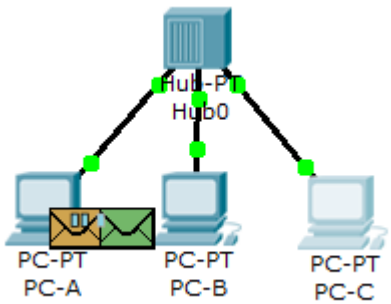
Then, give PC-A the ip address of 192.168.1.2 PC-B the IP address of 192.168.1.3 and PC-C the Ip address of 192.168.1.2. All these PCs have subnet masks same as 255.255.255.0.

Now in second step, select the **simulation mode.** After going to the simulation mode, click on the **event list**tab.Click on Edit Filters, and then select All/None to deselect every filter. Then choose ARP and ICMP and click in the workspace to close the Edit Filters window. From that



uncheck all and select only ARP and ICMP so it will be displayed as follows.

Showing Data Traffic



In the next step, select the **simple PDU** and bring it to the PC-A to make it the source and the drag it to the PC-C to mke it the destination. Now after doing this, the topology will show two envelopes near PC-A which indicates the data traffic.One envelope is an ICMP packet, while the other is an ARP packet. After this a new scenario will be created.

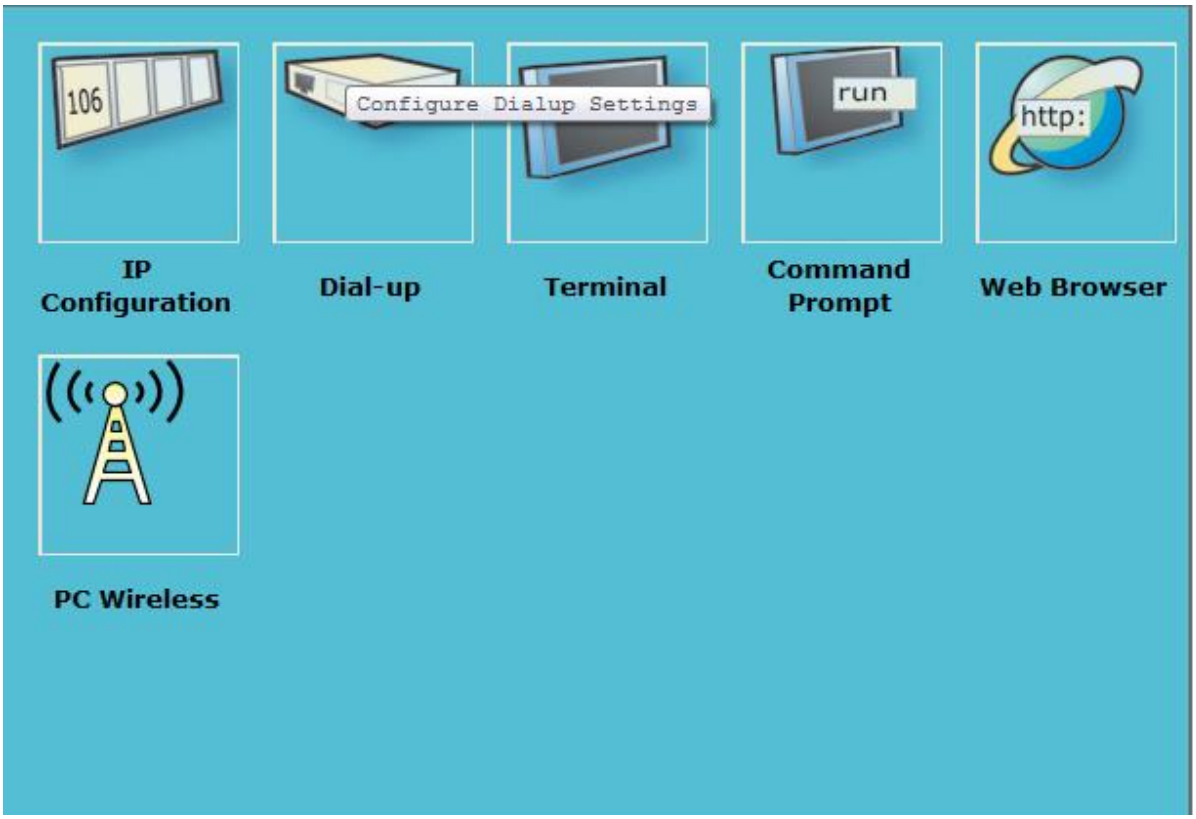
Nextly, select the **Auto Capture/Play** button in a horizontal simulation bar. Also the speed of this can be varied from the vertical bar. This will show the flow of the packets from PC-A to PC-C via the hub and the PC-B.

The , choose the **Reset Simulation**button and by doing so , the ARP envelope is no longer present.This has reset the simulation but has not cleared any configuration changes or MAC / ARP table entries.

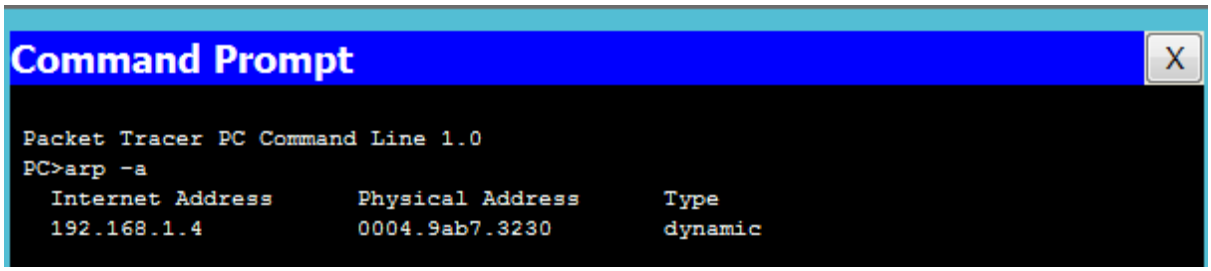
Same way if you choose the **Capture/ Forward**button, this will advance the**ICMP** packet one device ahead. When you choose the **Power Cycle Devjce**button then, the ICMP and ARP packets will be now present.

❖ THE ARP TABLE

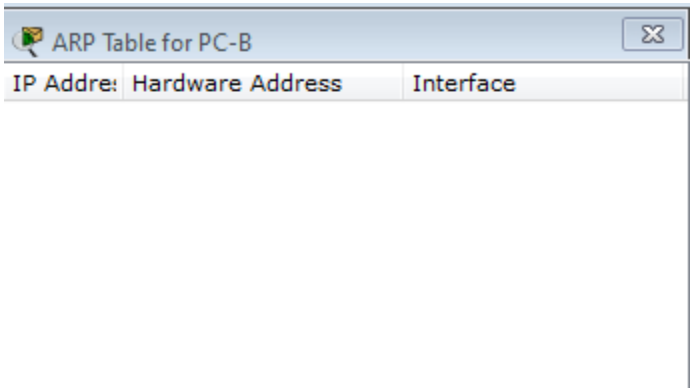
Click the **Auto Capture/ Play**button and then allow the entire simulation to run completely. The click on **PC-A** and go to the **Desktop tab** displayed as below



Now to view the ARP table of PC-A will be displayed by typing command from the command prompt as **arp–a**



Another way of displaying the ARP Table is to use the **INSPECT TOOL** and click it on the PC-A or PC-B or PC-C will display the respective ARP Table. The ARP table of PC-B will be blank as below



GRADE: **SIGNATURE:**

Practical 5

Aim: To configure Static routing.

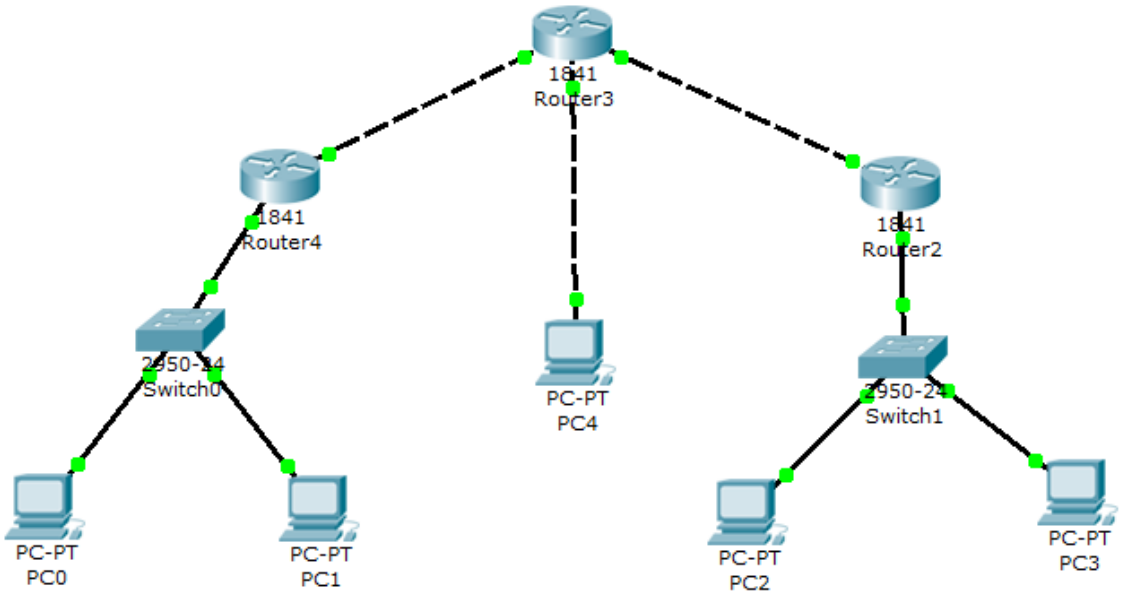


Fig 1. Topology used in the practical

No.	Host	Port	Ip Address	DEFAULT GATEWAY
1	PC0		192.168.1.1	192.168.1.254
2	PC1		192.168.1.2	192.168.1.254
3	ROUTER 4	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.1.254 192.168.4.1	
4	PC2		192.168.2.1	192.168.2.254
5	PC3		192.168.2.2	192.168.2.254
6	ROUTER 2	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.5.2 192.168.2.254	
7	PC4		192.168.3.1	192.168.3.254
8	ROUTER 3	FAST ETHERNET 0/0 FAST ETHERNET 0/1 ETHERNET 0/1/0	192.168.4.2 192.168.3.254 192.168.5.1	

Table 1. Details of ip addresses for every node

Static Routing:

Router 4 configuration

Router>enable

Router#configure t

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

Router(config)#ip route 192.168.3.0 255.255.255.0 192.168.4.2

Router(config)#ip route 192.168.2.0 255.255.255.0 192.168.4.2

Router(config)#ip route 192.168.5.0 255.255.255.0 192.168.4.2

Router(config)#

Routing Table

C 192.168.1.0/24 is directly connected, FastEthernet0/0

S 192.168.2.0/24 [1/0] via 192.168.4.2

S 192.168.3.0/24 [1/0] via 192.168.4.2

C 192.168.4.0/24 is directly connected, FastEthernet0/1

S 192.168.5.0/24 [1/0] via 192.168.4.2

Router 2 configuration

Router>enable

Router#configure t

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

Router(config)#ip route 192.168.3.0 255.255.255.0 192.168.5.1

Router(config)#ip route 192.168.4.0 255.255.255.0 192.168.5.1

Router(config)#ip route 192.168.1.0 255.255.255.0 192.168.5.1

Router(config)#

Routing Table

S 192.168.1.0/24 [1/0] via 192.168.5.1

C 192.168.2.0/24 is directly connected, FastEthernet0/1

S 192.168.3.0/24 [1/0] via 192.168.5.1

S 192.168.4.0/24 [1/0] via 192.168.5.1

C 192.168.5.0/24 is directly connected, FastEthernet0/0

Router 3 configuration

Router(config)#ip route 192.168.3.0 255.255.255.0 192.168.5.1

Router(config)#ip route 192.168.4.0 255.255.255.0 192.168.5.1

Router(config)#ip route 192.168.1.0 255.255.255.0 192.168.5.1

Routing Table

S 192.168.1.0/24 [1/0] via 192.168.4.1

S 192.168.2.0/24 [1/0] via 192.168.5.2

C 192.168.3.0/24 is directly connected, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/0

C 192.168.5.0/24 is directly connected, Ethernet0/1/0

Practical 6

Aim: To configure RIP.

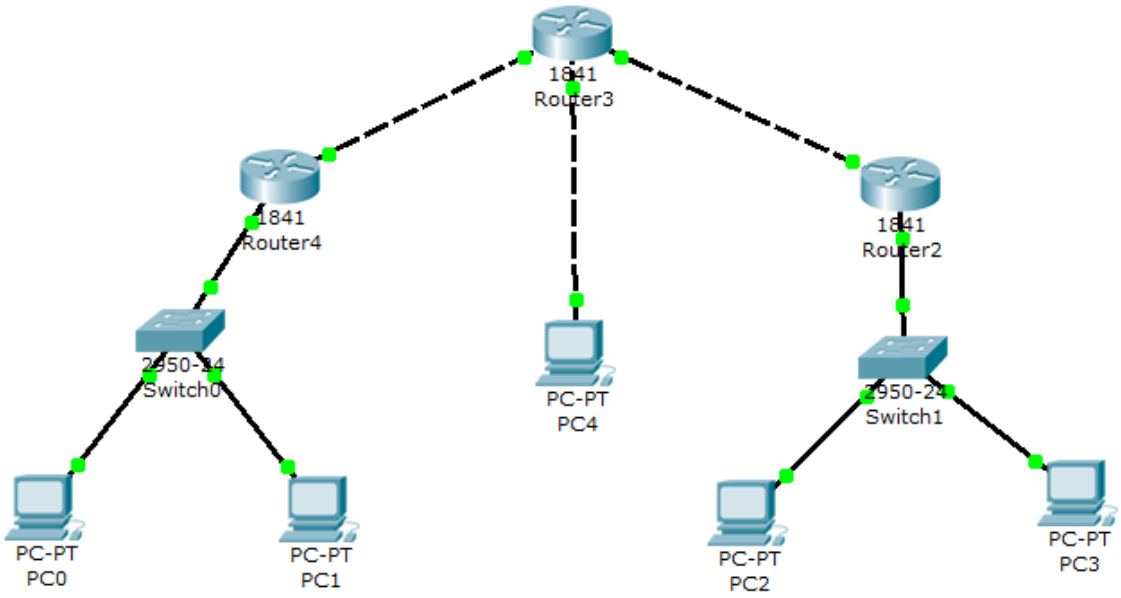


Fig 1. Topology used in the practical

No.	Host	Port	Ip Address	DEFAULT GATEWAY
1	PC0		192.168.1.1	192.168.1.254
2	PC1		192.168.1.2	192.168.1.254
3	ROUTER 4	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.1.254 192.168.4.1	
4	PC2		192.168.2.1	192.168.2.254
5	PC3		192.168.2.2	192.168.2.254
6	ROUTER 2	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.5.2 192.168.2.254	
7	PC4		192.168.3.1	192.168.3.254
8	ROUTER 3	FAST ETHERNET 0/0 FAST ETHERNET 0/1 ETHERNET 0/1/0	192.168.4.2 192.168.3.254 192.168.5.1	

Table 1. Details of ip addresses for every node

RIP Routing

Router 4

Router(config)#router rip

Router(config-router)#network 192.168.1.0

Router(config-router)#network 192.168.4.0

Router(config-router)#

Routing table

C 192.168.1.0/24 is directly connected, FastEthernet0/0

R 192.168.2.0/24 [120/1] via 192.168.4.2, 00:00:06, FastEthernet0/1

R 192.168.3.0/24 [120/2] via 192.168.4.2, 00:00:06, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/1

R 192.168.5.0/24 [120/1] via 192.168.4.2, 00:00:06, FastEthernet0/1

Router 2

Router(config)#router rip

Router(config-router)#network 192.168.2.0

Router(config-router)#network 192.168.5.0

Routing table

C 192.168.2.0/24 is directly connected, Ethernet0/1/0

R 192.168.3.0/24 [120/1] via 192.168.5.1, 00:00:06, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/0

C 192.168.5.0/24 is directly connected, FastEthernet0/1

Router 3

Router(config)#router rip

Router(config-router)#network 192.168.3.0

Router(config-router)#network 192.168.4.0

Router(config-router)#network 192.168.5.0

Routing table

R 192.168.2.0/24 [120/1] via 192.168.5.2, 00:00:25, FastEthernet0/1

C 192.168.3.0/24 is directly connected, FastEthernet0/0

R 192.168.4.0/24 [120/1] via 192.168.5.2, 00:00:25, FastEthernet0/1

C 192.168.5.0/24 is directly connected, FastEthernet0/1

Practical 7

Aim: To configure EIGRP.

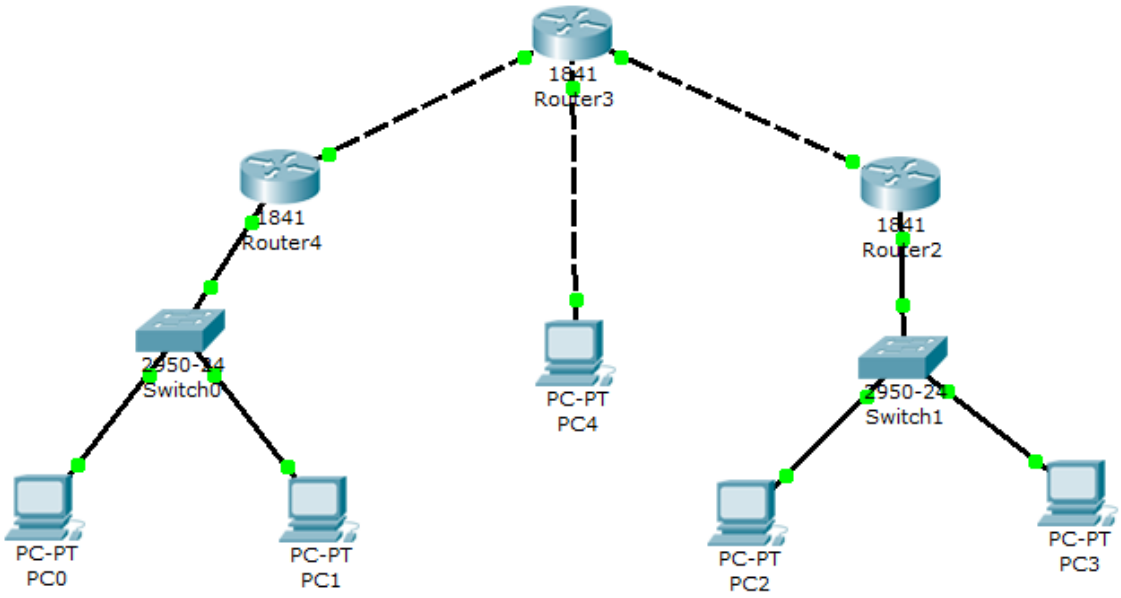


Fig 1. Topology used in the practical

No.	Host	Port	Ip Address	DEFAULT GATEWAY
1	PC0		192.168.1.1	192.168.1.254
2	PC1		192.168.1.2	192.168.1.254
3	ROUTER 4	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.1.254 192.168.4.1	
4	PC2		192.168.2.1	192.168.2.254
5	PC3		192.168.2.2	192.168.2.254
6	ROUTER 2	FAST ETHERNET 0/0 FAST ETHERNET 0/1	192.168.5.2 192.168.2.254	
7	PC4		192.168.3.1	192.168.3.254
8	ROUTER 3	FAST ETHERNET 0/0 FAST ETHERNET 0/1 ETHERNET 0/1/0	192.168.4.2 192.168.3.254 192.168.5.1	

Table 1. Details of ip addresses for every node

EIGRP:

Router 4

Router(config)#router eigrp 2

Router(config-router)#network 192.168.1.0

Router(config-router)#network 192.168.4.0

Router(config-router)#

Routing table

C 192.168.1.0/24 is directly connected, FastEthernet0/0

D 192.168.2.0/24 [90/284160] via 192.168.4.2, 00:44:29, FastEthernet0/1

D 192.168.3.0/24 [90/33280] via 192.168.4.2, 00:44:29, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/1

D 192.168.5.0/24 [90/30720] via 192.168.4.2, 00:44:29, FastEthernet0/

Router 2

Router(config)#router eigrp 2

Router(config-router)#network 192.168.2.0

Router(config-router)#network 192.168.5.0

Routing table

D 192.168.1.0/24 [90/30720] via 192.168.4.1, 00:00:14, FastEthernet0/0

C 192.168.2.0/24 is directly connected, Ethernet0/1/0

D 192.168.3.0/24 [90/30720] via 192.168.5.1, 00:00:14, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/0

C 192.168.5.0/24 is directly connected, FastEthernet0/1

Router 3

Router(config)#router eigrp 2

Router(config-router)#network 192.168.3.0

Router(config-router)#network 192.168.4.0

Router(config-router)#network 192.168.5.0

Routing table

D 192.168.1.0/24 [90/33280] via 192.168.5.2, 00:46:35, FastEthernet0/1

D 192.168.2.0/24 [90/284160] via 192.168.5.2, 00:46:35, FastEthernet0/1

C 192.168.3.0/24 is directly connected, FastEthernet0/0

D 192.168.4.0/24 [90/30720] via 192.168.5.2, 00:46:35, FastEthernet0/1

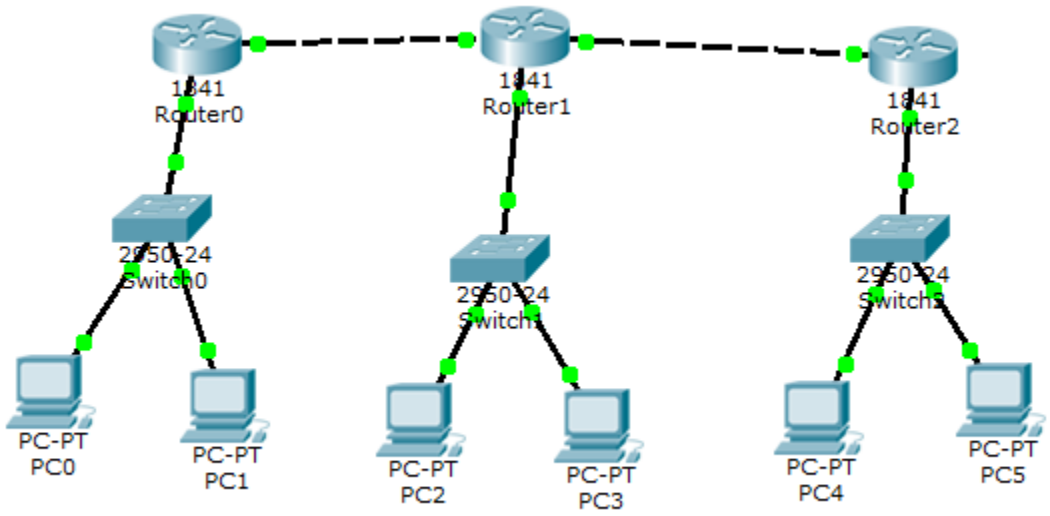
C 192.168.5.0/24 is directly connected, FastEthernet0/1

Practical-8

AIM:Enabling OSPF Protocol and OSPF neighbours.

Solution:

SrNo	HostName	Port	IP address	SubnetMast
1.	Router0	FastEthernet0/0	192.168.1.3	255.255.255.0
		FastEthernet0/1	192.168.4.1	255.255.255.0
2.	Router1	FastEthernet0/0	192.168.2.3	255.255.255.0
		FastEthernet0/1	192.168.4.2	255.255.255.0
		Ethernet 0/1/0	192.168.5.1	255.255.255.0
3.	Router2	FastEthernet0/0	192.168.3.3	255.255.255.0
		FastEthernet0/1	192.168.5.2	255.255.255.0
4.	PC0		192.168.1.1	255.255.255.0
5.	PC1		192.168.1.2	255.255.255.0
6.	PC2		192.168.2.1	255.255.255.0
7.	PC3		192.168.2.2	255.255.255.0
8.	PC4		192.168.3.1	255.255.255.0
9.	PC5		192.168.3.2	255.255.255.0



Router: 0

Router>en

Router#config t

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

Router(config)#router ospf 1

Router(config-router)#network 192.168.0.0 0.0.255.255 area 10

Router(config-router)#

00:07:26: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.5.1 on FastEthernet0/1 from LOADING to FULL, Loading Done

Router(config-router)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#showip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

C 192.168.1.0/24 is directly connected, FastEthernet0/0

O 192.168.2.0/24 [110/2] via 192.168.4.2, 00:01:20, FastEthernet0/1

O 192.168.3.0/24 [110/12] via 192.168.4.2, 00:00:03, FastEthernet0/1

C 192.168.4.0/24 is directly connected, FastEthernet0/1

O 192.168.5.0/24 [110/11] via 192.168.4.2, 00:01:20, FastEthernet0/1

Router#

Router: 1

Router>en

Router#config t

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

Router(config)#router ospf 2

Router(config-router)#network 192.168.0.0 0.0.255.255 area 10

Router(config-router)#

00:07:26: %OSPF-5-ADJCHG: Process 2, Nbr 192.168.4.1 on FastEthernet0/1 from LOADING to FULL, Loading Done

00:08:38: %OSPF-5-ADJCHG: Process 2, Nbr 192.168.5.2 on Ethernet0/1/0 from LOADING to FULL, Loading Done

Router(config-router)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#showip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

O 192.168.1.0/24 [110/2] via 192.168.4.1, 00:01:47, FastEthernet0/1

C 192.168.2.0/24 is directly connected, FastEthernet0/0

O 192.168.3.0/24 [110/11] via 192.168.5.2, 00:00:35, Ethernet0/1/0

C 192.168.4.0/24 is directly connected, FastEthernet0/1

C 192.168.5.0/24 is directly connected, Ethernet0/1/0

Router#

Router-2

Router>en

Router#config t

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

Router(config)#router ospf 1

Router(config-router)#network 192.168.0.0 0.0.255.255 area 10

Router(config-router)#

00:08:38: %OSPF-5-ADJCHG: Process 1, Nbr 192.168.5.1 on FastEthernet0/1 from LOADING to FULL, Loading Done

Router(config-router)#exit

Router(config)#exit

Router#

%SYS-5-CONFIG_I: Configured from console by console

Router#showip route

Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP

D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area

N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2

E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP

i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area

* - candidate default, U - per-user static route, o - ODR

P - periodic downloaded static route

Gateway of last resort is not set

O 192.168.1.0/24 [110/3] via 192.168.5.1, 00:00:50, FastEthernet0/1

O 192.168.2.0/24 [110/2] via 192.168.5.1, 00:00:50, FastEthernet0/1

C 192.168.3.0/24 is directly connected, FastEthernet0/0

O 192.168.4.0/24 [110/2] via 192.168.5.1, 00:00:50, FastEthernet0/1

C 192.168.5.0/24 is directly connected, FastEthernet0/1

Router#