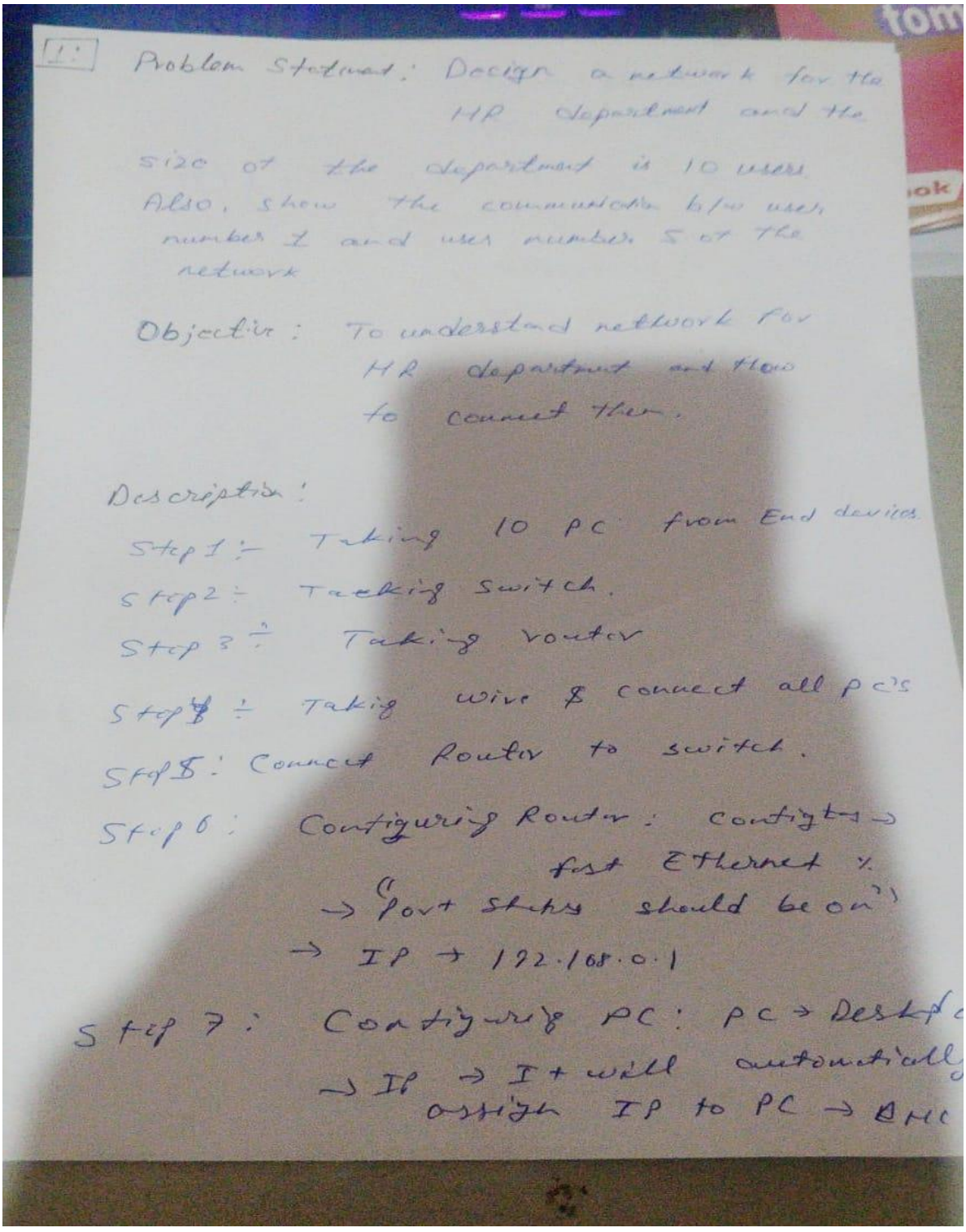
1:-



1:

Problem Statement: Design a network for the HR department and the size of the department is 10 users. Also, show the communication b/w user number 1 and user number 5 of the network

Objective: To understand network for HR department and how to connect them.

Description:

Step 1:- Taking 10 PC from End devices

Step 2:- Taking switch.

Step 3:- Taking router

Step 4:- Taking wire & connect all PC's

Step 5: Connect Router to switch.

Step 6: Configuring Router: config → fast Ethernet 0/0 → "port status should be on" → IP → 192.168.0.1

Step 7: Configuring PC: PC → Desktop → IP → It will automatically assign IP to PC → DHC

Step 8 : Check Connectivity

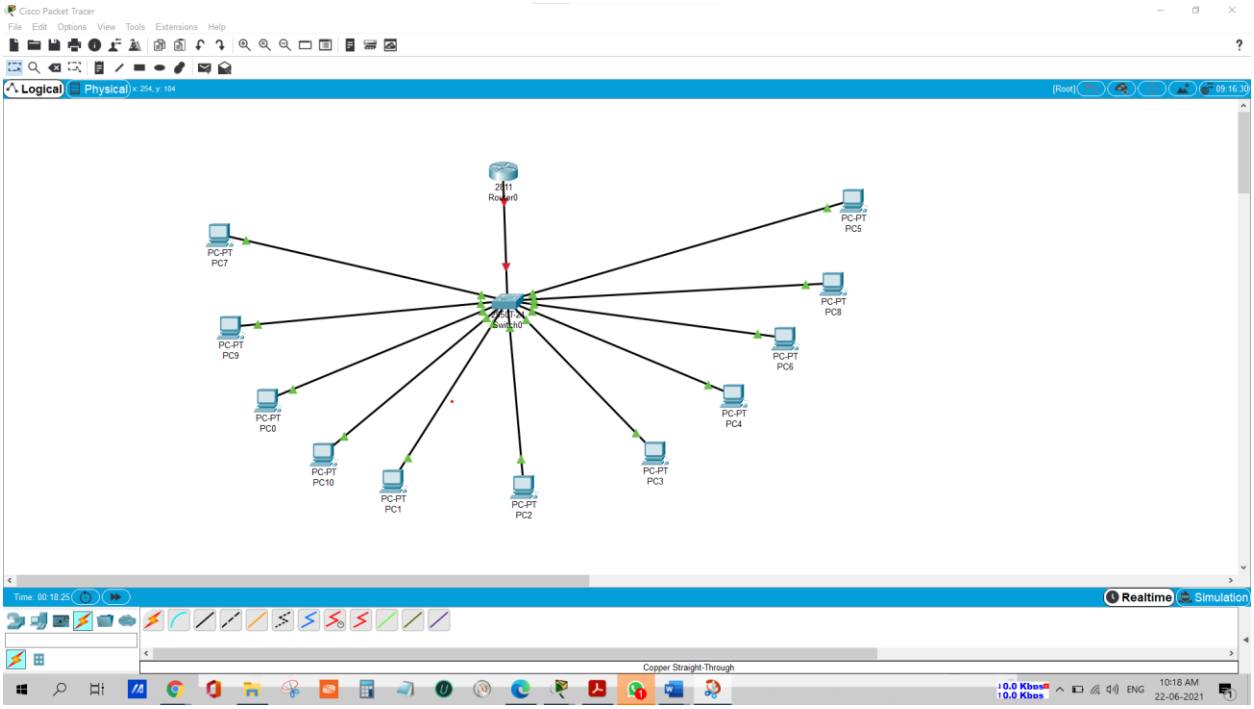
PC → Desktop

→ CMD → ping 192.168.0.5 (IP of the 9th one PC)

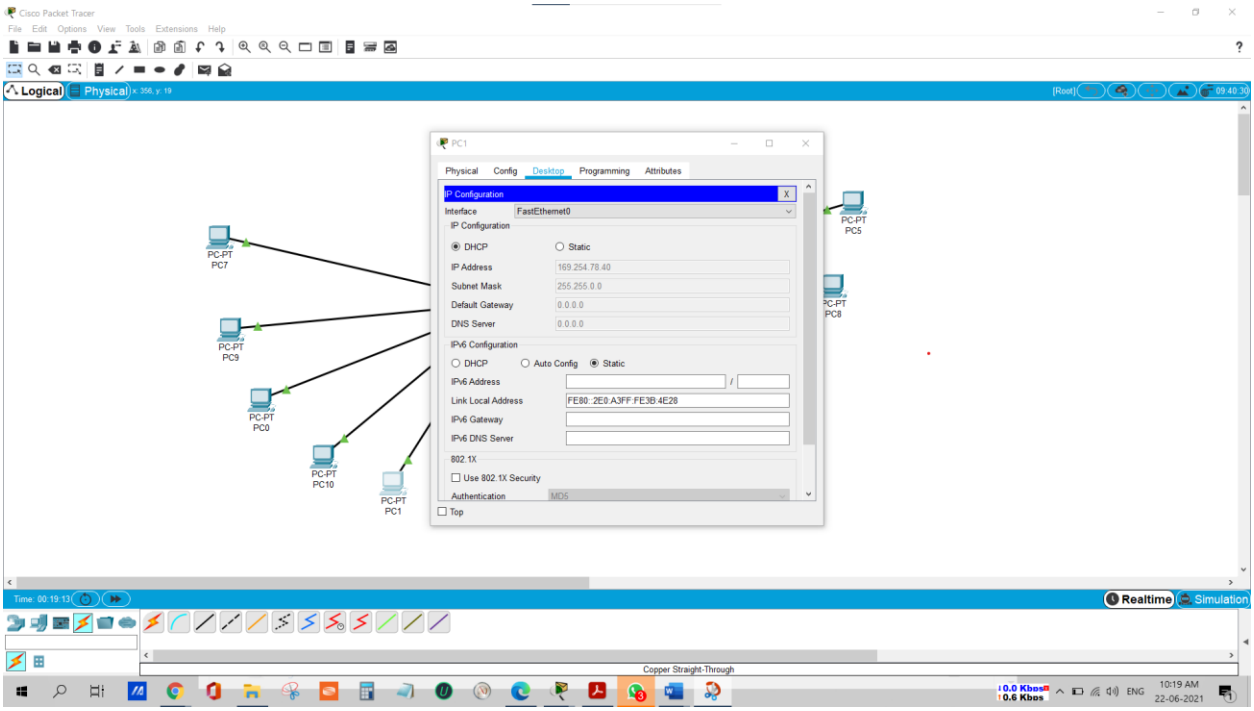
→ connected

Step 9 : Exit.

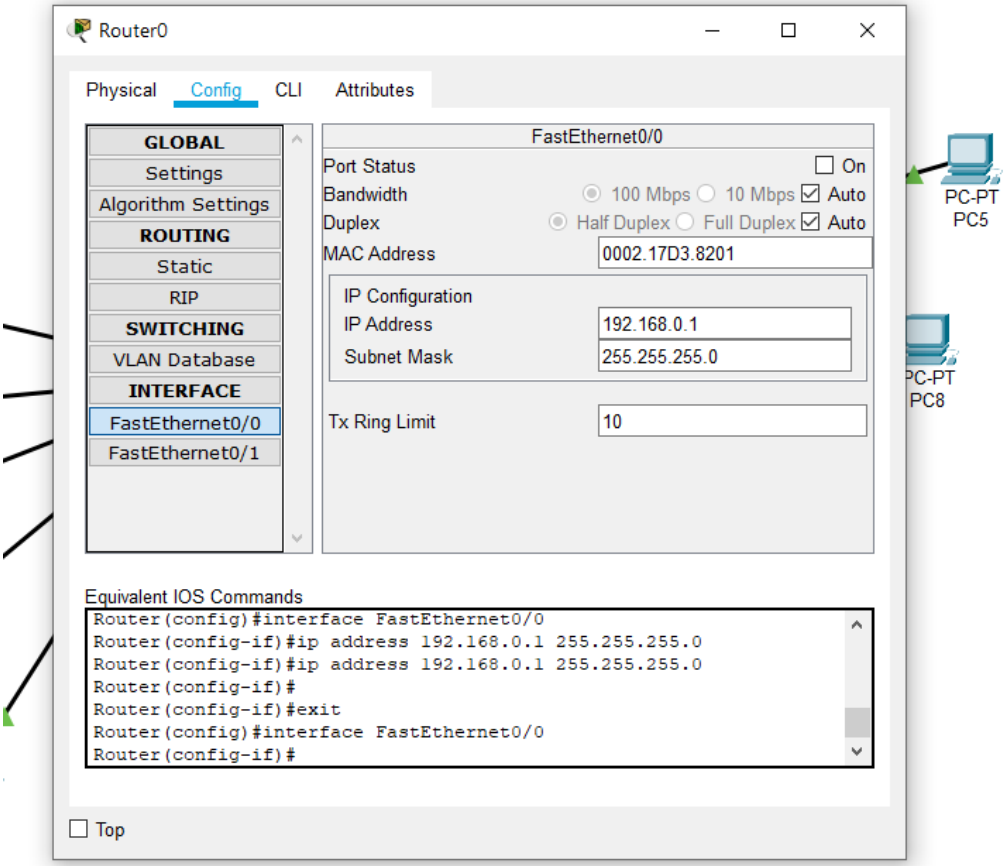
Step 1:


Cisco Packet Tracer
File Edit Options View Tools Extensions Help
Logical
Physical
Router0
Switch0
PC-PT PC0
PC-PT PC1
PC-PT PC2
PC-PT PC3
PC-PT PC4
PC-PT PC5
PC-PT PC6
PC-PT PC7
PC-PT PC8
PC-PT PC9
PC-PT PC10
Realtime
Simulation
Copper Straight-Through
ENG
10:18 AM
22-06-2021

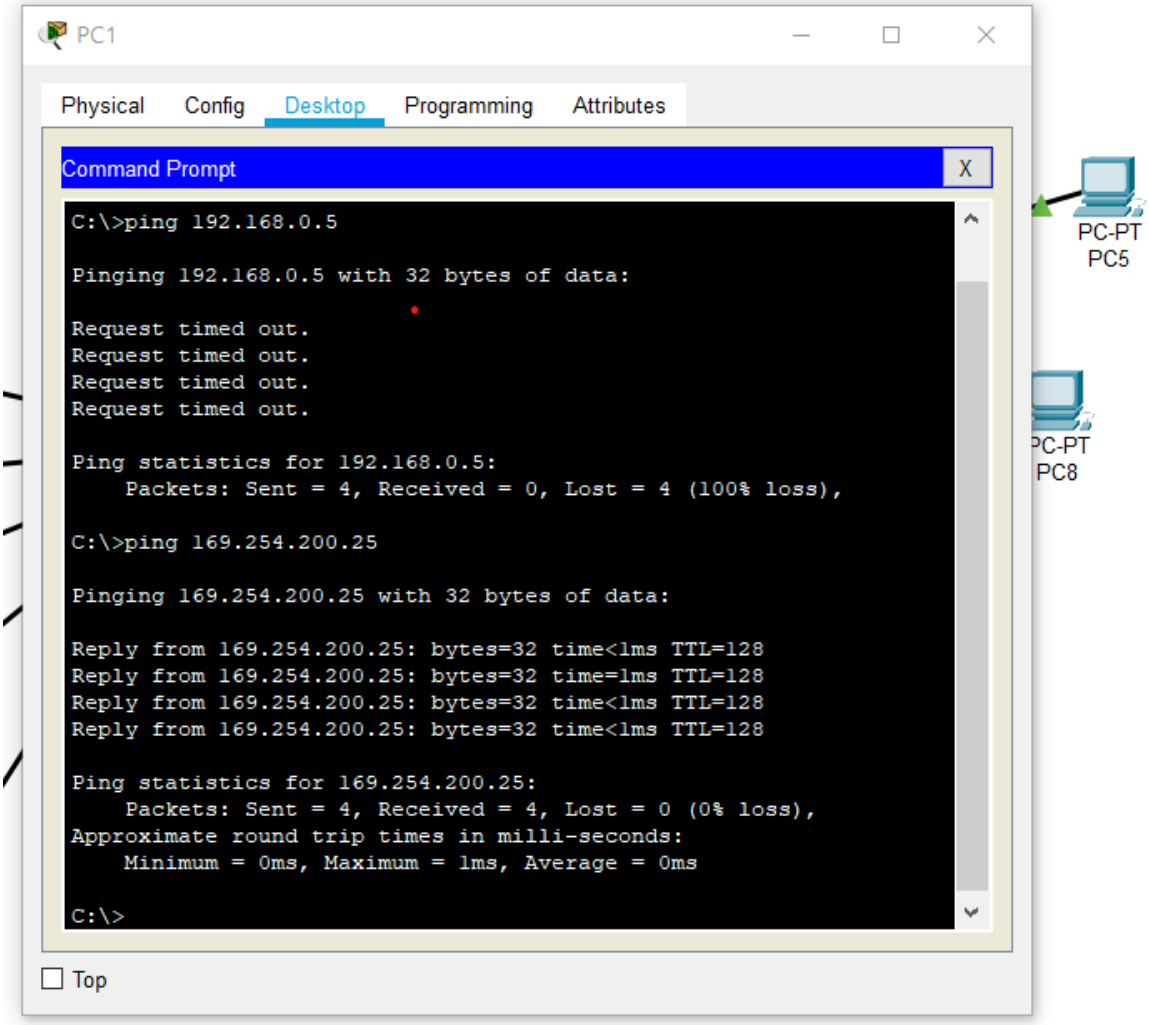
Step 2


Cisco Packet Tracer
File Edit Options View Tools Extensions Help
Logical Physical
PC1
Physical Config Desktop Programming Attributes
IP Configuration
Interface FastEthernet0
IP Configuration
DHCP Static
IP Address 169.254.78.40
Subnet Mask 255.255.0.0
Default Gateway 0.0.0.0
DNS Server 0.0.0.0
IPv6 Configuration
DHCP Auto Config Static
IPv6 Address
Link Local Address FE80::2E0:A3FF:FE3B:4E28
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication MD5
Top
PC-PT PC7
PC-PT PC9
PC-PT PC0
PC-PT PC10
PC-PT PC1
PC-PT PC5
PC-PT PC8
Realtime Simulation
Copper Straight-Through
10:19 AM
22-06-2021

Step3


Router0
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
FastEthernet0/0
Port Status
On
Bandwidth
100 Mbps
10 Mbps
Auto
Duplex
Half Duplex
Full Duplex
Auto
MAC Address
0002.17D3.8201
IP Configuration
IP Address
192.168.0.1
Subnet Mask
255.255.255.0
Tx Ring Limit
10
Equivalent IOS Commands
Router(config)#interface FastEthernet0/0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#ip address 192.168.0.1 255.255.255.0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Top
PC-PT
PC5
PC-PT
PC8

Step 4


PC1
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
C:\>ping 192.168.0.5
Pinging 192.168.0.5 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 192.168.0.5:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 169.254.200.25
Pinging 169.254.200.25 with 32 bytes of data:
Reply from 169.254.200.25: bytes=32 time<1ms TTL=128
Reply from 169.254.200.25: bytes=32 time=1ms TTL=128
Reply from 169.254.200.25: bytes=32 time<1ms TTL=128
Reply from 169.254.200.25: bytes=32 time<1ms TTL=128
Ping statistics for 169.254.200.25:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Top
PC-PT
PC5
C-PT
PC8