

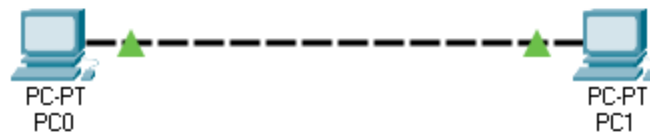
Name - TANYA GUPTA
Section – B

Course – MCA – 2nd SEM
Subject Name – Computer Networks

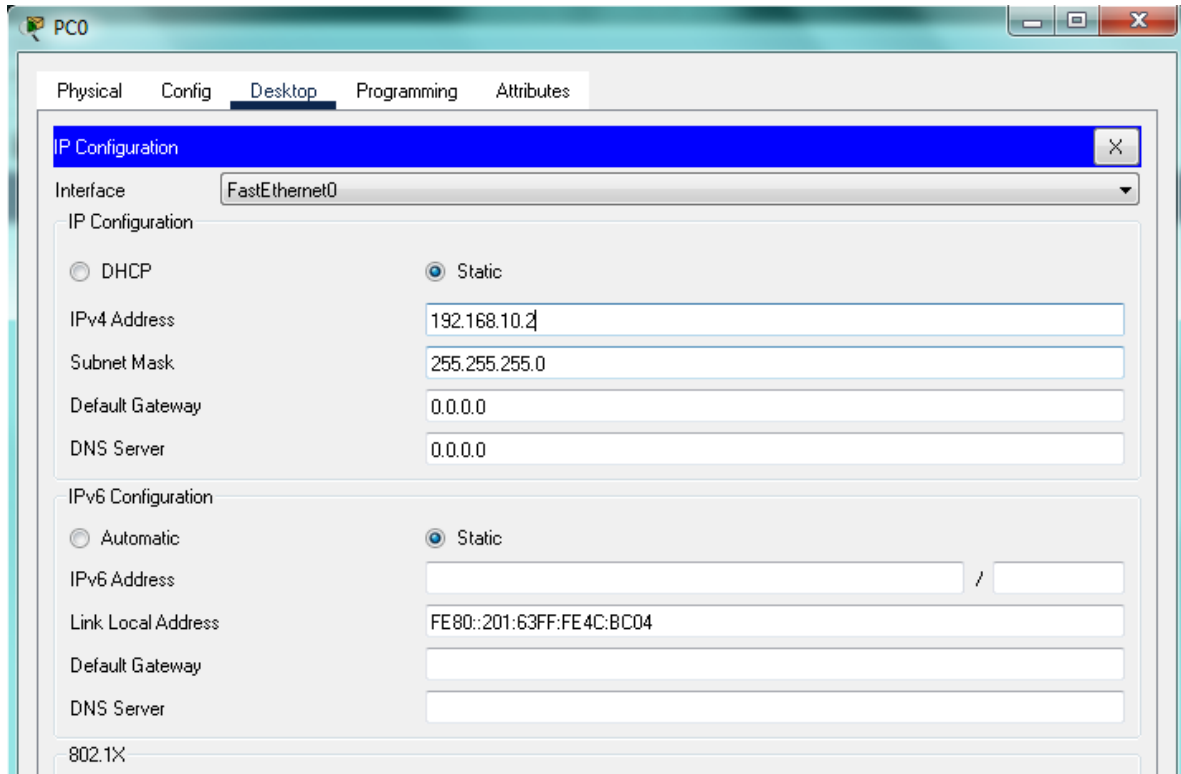
Question 1

DESIGN A PEER-TO-PEER NETWORK WITH TWO PCS.

Step 1: Establishing a connection between pc0 and pc1.



Step 2: Providing IP address and subnet mask to both the PCs.



The screenshot shows the configuration window for PC0. The 'Desktop' tab is selected. The 'IP Configuration' section is expanded, showing the 'FastEthernet0' interface. The 'Static' radio button is selected for IP Configuration. The IPv4 Address is set to 192.168.10.2, Subnet Mask is 255.255.255.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The IPv6 Configuration section is also expanded, showing the 'Static' radio button selected. The IPv6 Address is empty, Link Local Address is FE80::201:63FF:FE4C:BC04, Default Gateway is empty, and DNS Server is empty. The 802.1X section is collapsed.

PC0

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 192.168.10.2

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

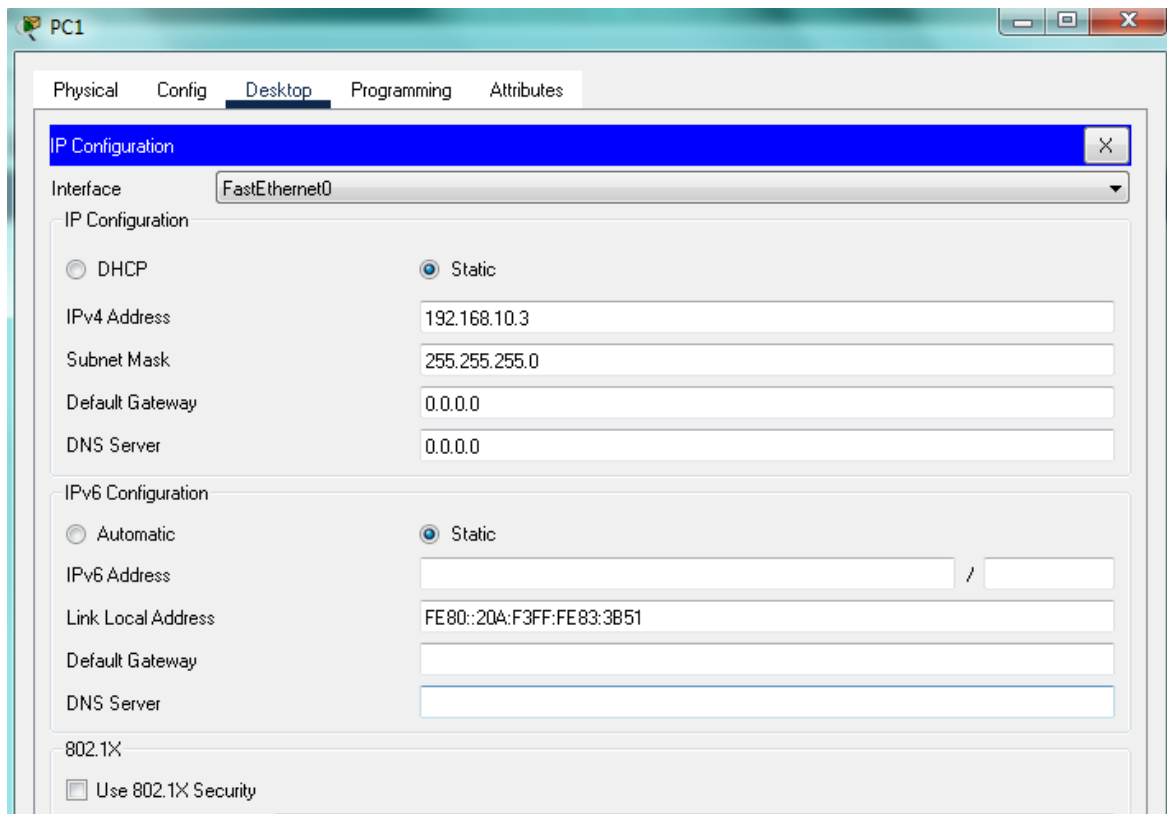
IPv6 Address: /

Link Local Address: FE80::201:63FF:FE4C:BC04

Default Gateway:

DNS Server:

802.1X



The screenshot shows the configuration window for PC1. The 'Desktop' tab is selected. The 'IP Configuration' section is expanded, showing the 'FastEthernet0' interface. The 'Static' radio button is selected for IP Configuration. The IPv4 Address is set to 192.168.10.3, Subnet Mask is 255.255.255.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The IPv6 Configuration section is also expanded, showing the 'Static' radio button selected. The IPv6 Address is empty, Link Local Address is FE80::20A:F3FF:FE83:3B51, Default Gateway is empty, and DNS Server is empty. The 802.1X section is collapsed, and the 'Use 802.1X Security' checkbox is unchecked.

PC1

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IPv4 Address: 192.168.10.3

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ Automatic ☒ Static

IPv6 Address: /

Link Local Address: FE80::20A:F3FF:FE83:3B51

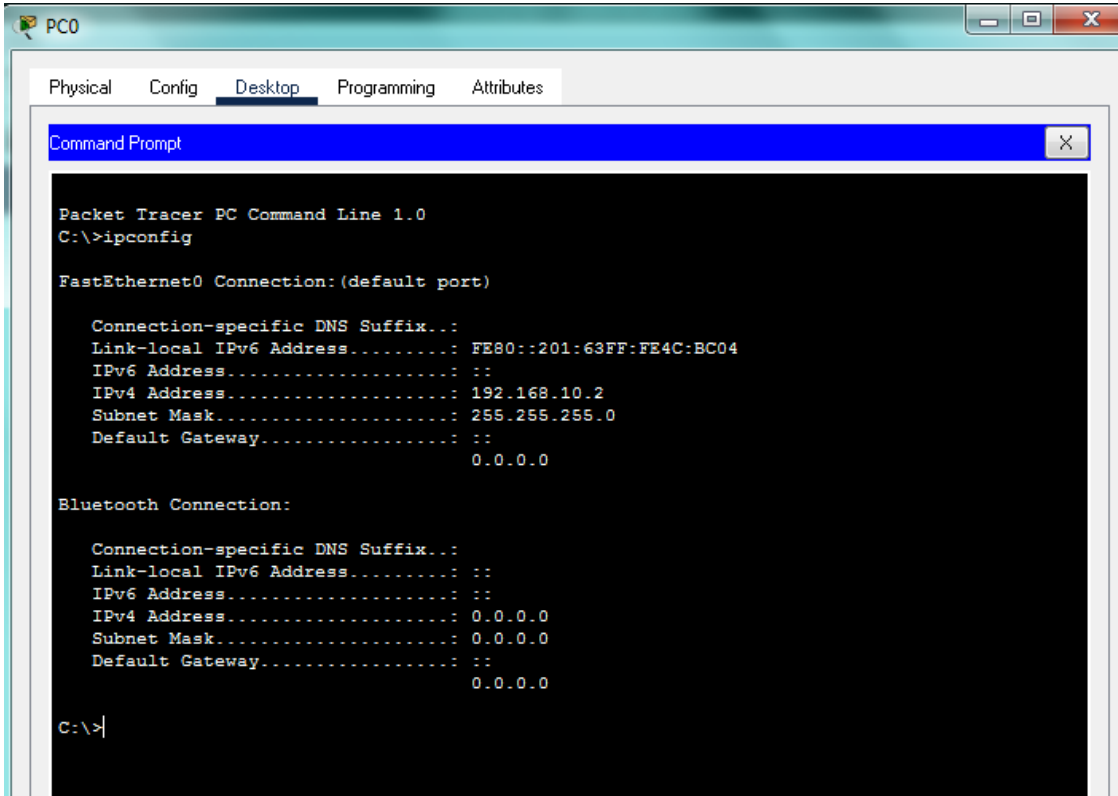
Default Gateway:

DNS Server:

802.1X

☐ Use 802.1X Security

Step 3: Configuring the IP address of the PCs.



The screenshot shows the 'PC0' window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of the 'ipconfig' command. The output shows the configuration for 'FastEthernet0' and 'Bluetooth' connections. The 'FastEthernet0' connection has a Link-local IPv6 Address of FE80::201:63FF:FE4C:BC04, an IPv6 Address of ::, an IPv4 Address of 192.168.10.2, a Subnet Mask of 255.255.255.0, and a Default Gateway of 0.0.0.0. The 'Bluetooth' connection has a Link-local IPv6 Address of ::, an IPv6 Address of ::, an IPv4 Address of 0.0.0.0, a Subnet Mask of 0.0.0.0, and a Default Gateway of 0.0.0.0.

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

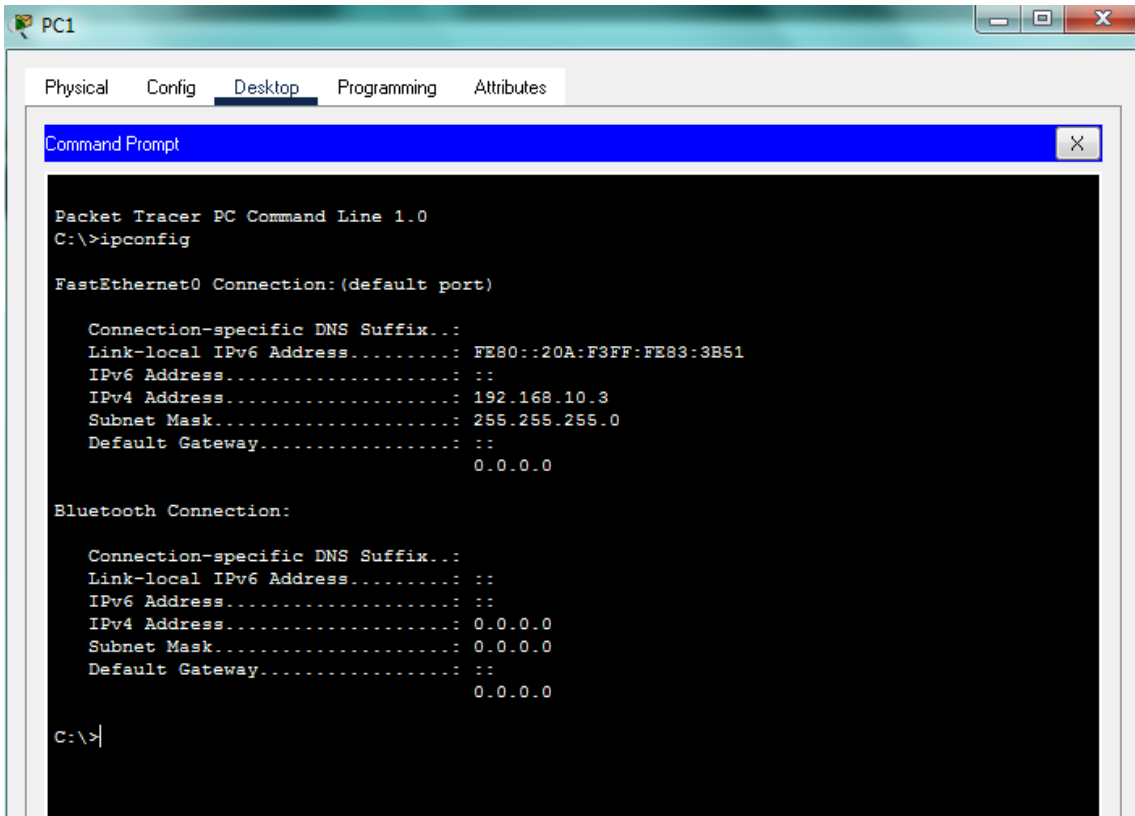
FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::201:63FF:FE4C:BC04
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.10.2
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                0.0.0.0

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0

C:\>
```



The screenshot shows the 'PC1' window with the 'Desktop' tab selected. A 'Command Prompt' window is open, displaying the output of the 'ipconfig' command. The output shows the configuration for 'FastEthernet0' and 'Bluetooth' connections. The 'FastEthernet0' connection has a Link-local IPv6 Address of FE80::20A:F3FF:FE93:3B51, an IPv6 Address of ::, an IPv4 Address of 192.168.10.3, a Subnet Mask of 255.255.255.0, and a Default Gateway of 0.0.0.0. The 'Bluetooth' connection has a Link-local IPv6 Address of ::, an IPv6 Address of ::, an IPv4 Address of 0.0.0.0, a Subnet Mask of 0.0.0.0, and a Default Gateway of 0.0.0.0.

```
Packet Tracer PC Command Line 1.0
C:\>ipconfig

FastEthernet0 Connection: (default port)

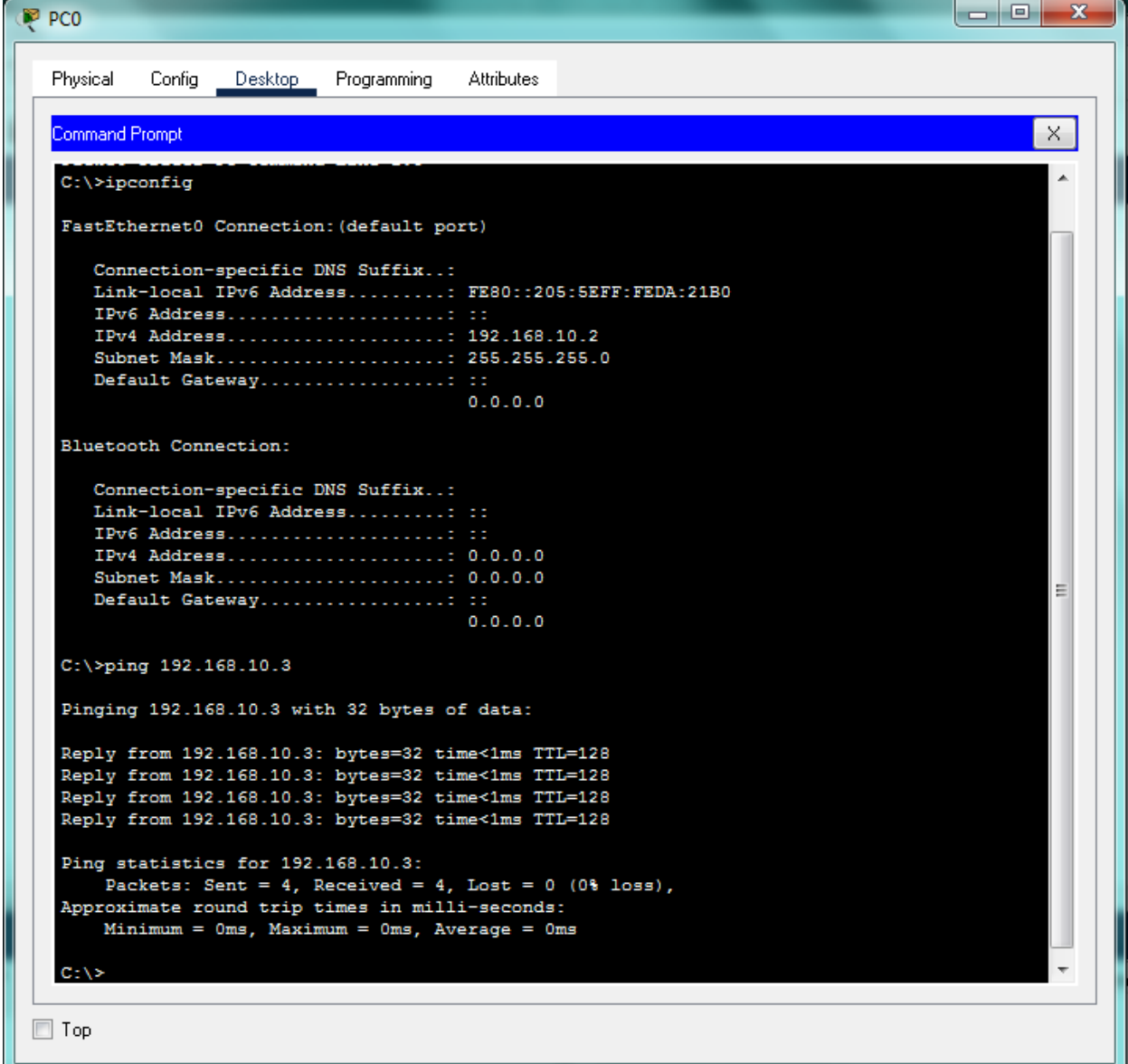
    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::20A:F3FF:FE93:3B51
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.10.3
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                0.0.0.0

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0

C:\>
```

Step 4: Checking connection from pc0 to pc1 with the help of ping command.



The screenshot shows a virtual PC window titled 'PC0' with tabs for Physical, Config, Desktop (selected), Programming, and Attributes. A Command Prompt window is open, displaying the output of the 'ipconfig' and 'ping' commands.

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::205:SEFF:FEDA:21B0
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 192.168.10.2
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address . . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                   0.0.0.0

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

At the bottom left of the PC window, there is a 'Top' button with a small square icon next to it.