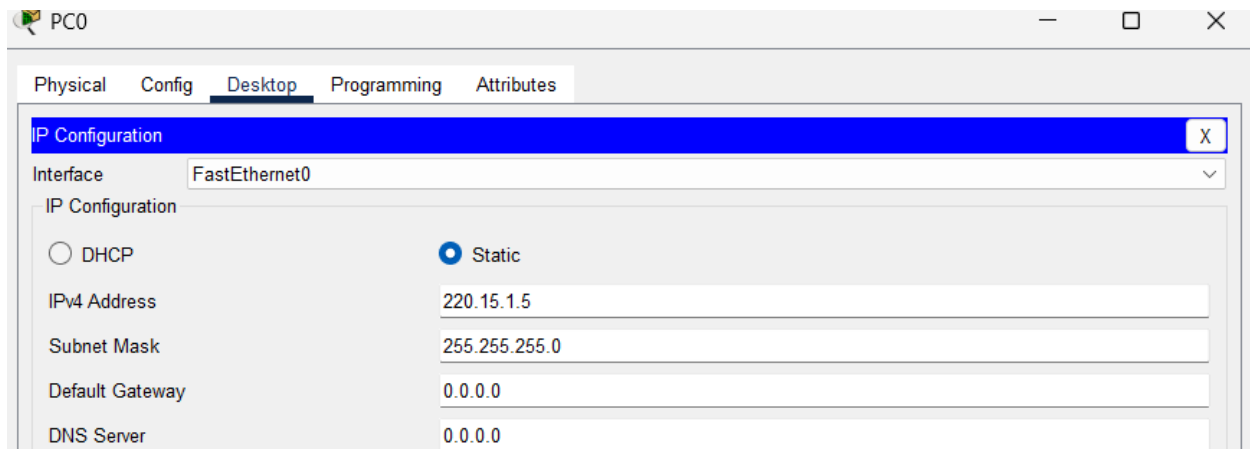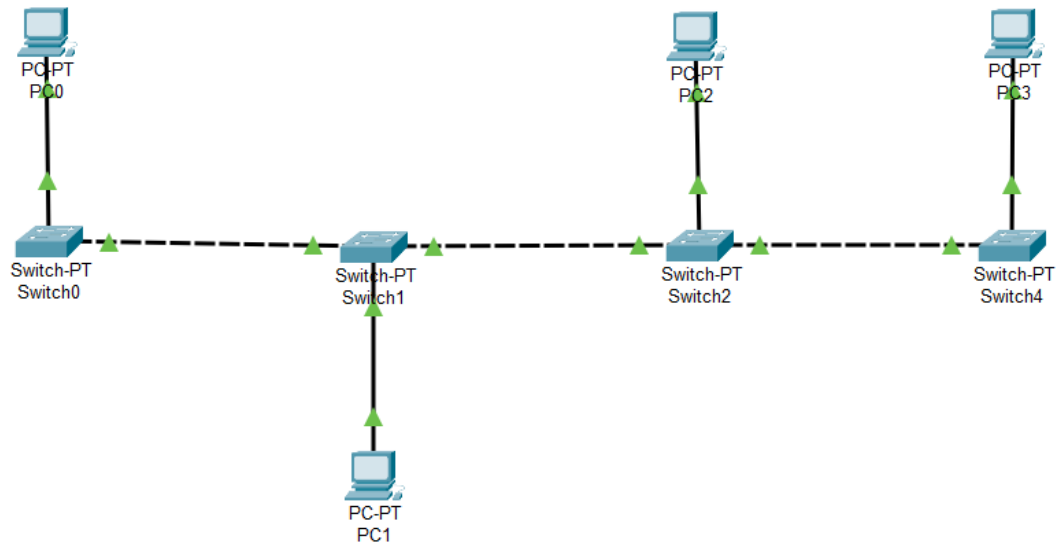Devarsh

AM.EN.U4ECE22015

Bus topology:

PC1

Physical　Config　Desktop　Programming　Attributes

IP Configuration　X

Interface　FastEthernet0

IP Configuration
- ◯ DHCP　　🔵 Static

IPv4 Address　220.15.1.6

Subnet Mask　255.255.255.0

Default Gateway　0.0.0.0

DNS Server　0.0.0.0

PC2

Physical　Config　Desktop　Programming　Attributes

IP Configuration　X

Interface　FastEthernet0

IP Configuration
- ◯ DHCP　　🔵 Static

IPv4 Address　220.15.1.7

Subnet Mask　255.255.255.0

Default Gateway　0.0.0.0

DNS Server　0.0.0.0

PC3

Physical　Config　Desktop　Programming　Attributes

IP Configuration　X

Interface　FastEthernet0

IP Configuration
- ◯ DHCP　　🔵 Static

IPv4 Address　220.15.1.8

Subnet Mask　255.255.255.0

Default Gateway　0.0.0.0

DNS Server　0.0.0.0

PC0

Physical   Config   Desktop   Programming   Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.1.7

Pinging 220.15.1.7 with 32 bytes of data:

Reply from 220.15.1.7: bytes=32 time=9ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128

Ping statistics for 220.15.1.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 9ms, Average = 8ms

C:\>
```
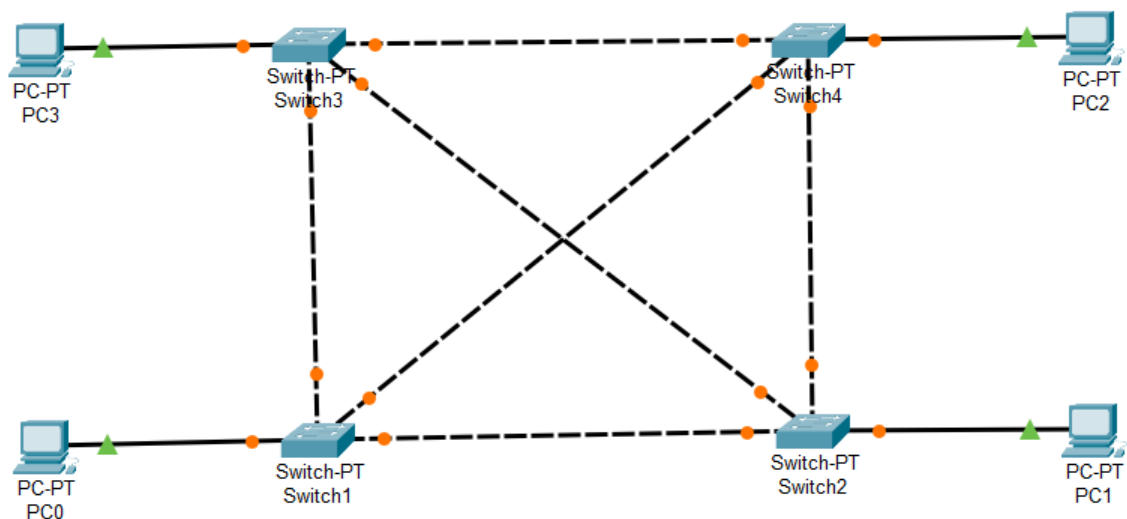

Mesh topology:

PC0

Physical | Config | **Desktop** | Programming | Attributes

IP Configuration   X

Interface | FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.5

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC1

Physical | Config | **Desktop** | Programming | Attributes

IP Configuration   X

Interface | FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.6

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC2

Physical | Config | **Desktop** | Programming | Attributes

IP Configuration   X

Interface | FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.7

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC3

Physical Config Desktop Programming Attributes

IP Configuration   X
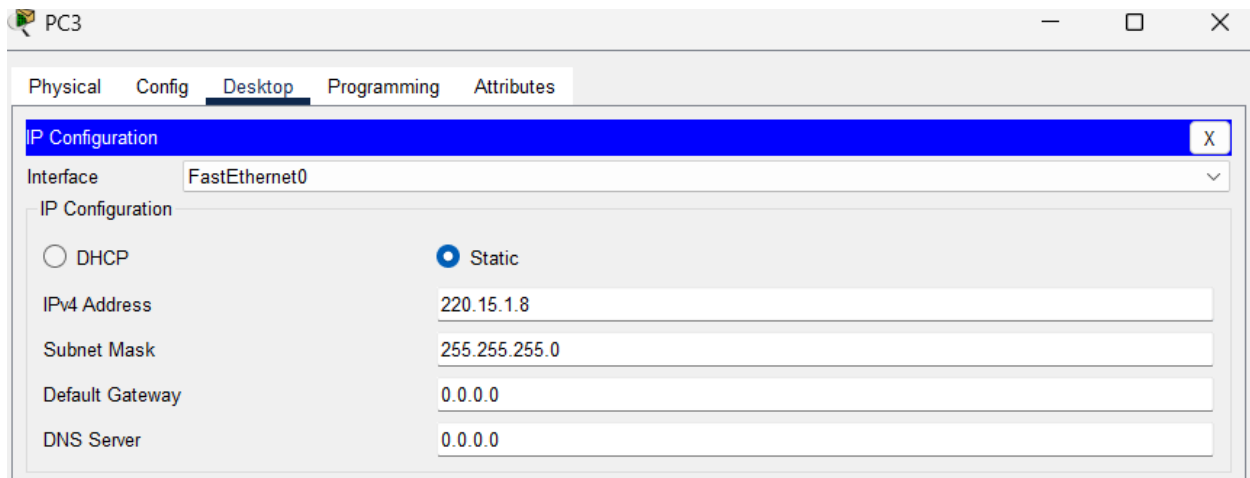
Interface   FastEthernet0   ⌄

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.8

Subnet Mask   255.255.255.0

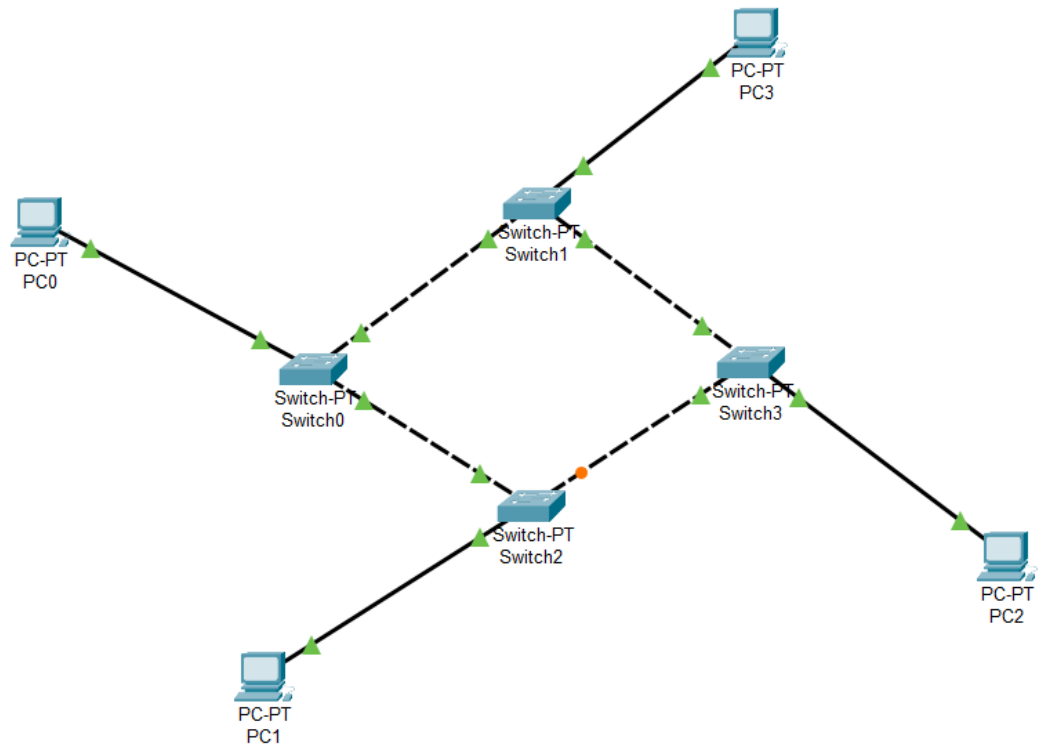Default Gateway   0.0.0.0

DNS Server   0.0.0.0

```
C:\>ping 220.15.1.6

Pinging 220.15.1.6 with 32 bytes of data:

Reply from 220.15.1.6: bytes=32 time=9ms TTL=128
Reply from 220.15.1.6: bytes=32 time=8ms TTL=128
Reply from 220.15.1.6: bytes=32 time=8ms TTL=128
Reply from 220.15.1.6: bytes=32 time=8ms TTL=128

Ping statistics for 220.15.1.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 9ms, Average = 8ms
```

Ring topology:

PC0 — □ ✕

Physical   Config   Desktop   Programming   Attributes

IP Configuration   X

Interface   FastEthernet0   ˅

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.5

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC1

Physical | Config | Desktop | Programming | Attributes

IP Configuration X

Interface | FastEthernet0

IP Configuration

◯ DHCP 🔵 Static

IPv4 Address | 220.15.1.6

Subnet Mask | 255.255.255.0

Default Gateway | 0.0.0.0

DNS Server | 0.0.0.0

PC2

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface | FastEthernet0

IP Configuration

◯ DHCP 🔵 Static

IPv4 Address | 220.15.1.7

Subnet Mask | 255.255.255.0

Default Gateway | 0.0.0.0

DNS Server | 0.0.0.0

PC3

Physical | Config | Desktop | Programming | Attributes

IP Configuration

Interface | FastEthernet0

IP Configuration

◯ DHCP 🔵 Static

IPv4 Address | 220.15.1.8

Subnet Mask | 255.255.255.0

Default Gateway | 0.0.0.0

DNS Server | 0.0.0.0

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.1.7

Pinging 220.15.1.7 with 32 bytes of data:

Reply from 220.15.1.7: bytes=32 time=9ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128
Reply from 220.15.1.7: bytes=32 time=8ms TTL=128

Ping statistics for 220.15.1.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 9ms, Average = 8ms

C:\>|
```
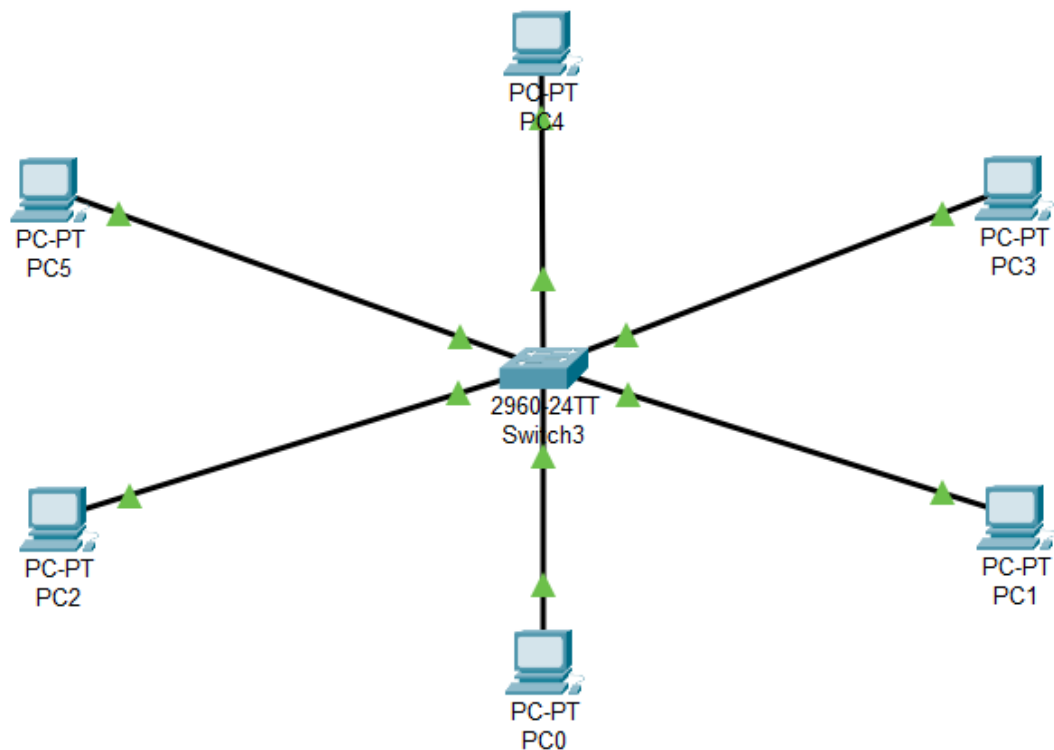

Star topology:

PC0

Physical	Config	Desktop	Programming	Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.5

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC1

Physical	Config	Desktop	Programming	Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.6

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC3

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface: FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.7

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC4

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface: FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.8

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC2

Physical	Config	Desktop	Programming	Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

◯ DHCP   🔵 Static

IPv4 Address	220.15.1.10
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

PC5

Physical	Config	Desktop	Programming	Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

◯ DHCP   🔵 Static

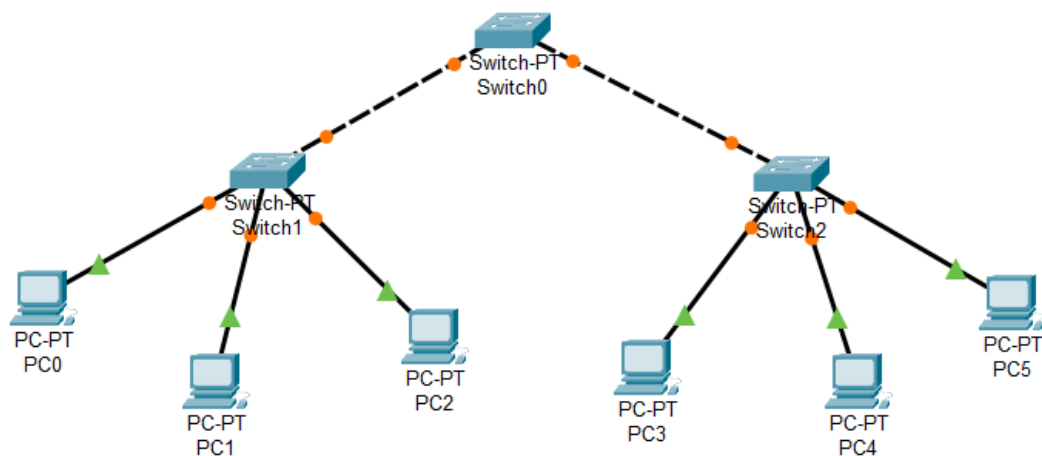|	
IPv4 Address	220.15.1.9
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.1.6

Pinging 220.15.1.6 with 32 bytes of data:

Reply from 220.15.1.6: bytes=32 time=5ms TTL=128
Reply from 220.15.1.6: bytes=32 time=4ms TTL=128
Reply from 220.15.1.6: bytes=32 time=4ms TTL=128
Reply from 220.15.1.6: bytes=32 time=4ms TTL=128

Ping statistics for 220.15.1.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 4ms, Maximum = 5ms, Average = 4ms
```

Tree topology:

PC0

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface: FastEthernet0

IP Configuration

◯ DHCP   ⬤ Static

IPv4 Address: 220.15.1.5

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

PC1

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface: FastEthernet0

IP Configuration

◯ DHCP   ⬤ Static

IPv4 Address: 220.15.1.6

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

PC2

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.7

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC3

| Physical | Config | Desktop | Programming | Attributes |

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.8

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC4

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.9

Subnet Mask   255.255.255.0
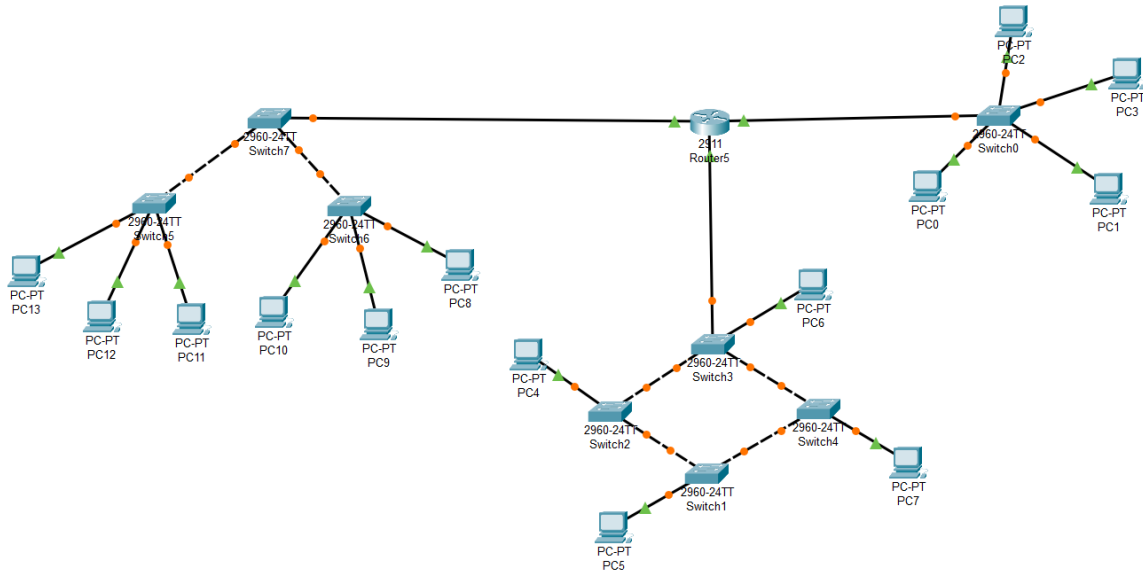
Default Gateway   0.0.0.0

DNS Server   0.0.0.0

PC5

Physical Config **Desktop** Programming Attributes

IP Configuration

Interface   FastEthernet0

IP Configuration

○ DHCP   ● Static

IPv4 Address   220.15.1.10

Subnet Mask   255.255.255.0

Default Gateway   0.0.0.0

DNS Server   0.0.0.0

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.1.8

Pinging 220.15.1.8 with 32 bytes of data:

Reply from 220.15.1.8: bytes=32 time=17ms TTL=128
Reply from 220.15.1.8: bytes=32 time=8ms TTL=128
Reply from 220.15.1.8: bytes=32 time=8ms TTL=128
Reply from 220.15.1.8: bytes=32 time=8ms TTL=128

Ping statistics for 220.15.1.8:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 17ms, Average = 10ms
```

Q2)3 LAN network connected via single router:

Router config for each Topology:

Router5 — GigabitEthernet0/1

GigabitEthernet0/1

Port Status	☑ On
Bandwidth	○ 1000 Mbps ○ 100 Mbps ○ 10 Mbps ☑ Auto
Duplex	○ Half Duplex ● Full Duplex ☑ Auto
MAC Address	0050.0F7B.8802

IP Configuration

IPv4 Address	220.15.3.9
Subnet Mask	255.255.255.0

Tx Ring Limit	10

Navigation menu: GLOBAL — Settings, Algorithm Settings; ROUTING — Static, RIP; SWITCHING — VLAN Database; INTERFACE — GigabitEthernet0/0, GigabitEthernet0/1, GigabitEthernet0/2

Router5 — GigabitEthernet0/2

GigabitEthernet0/2

Port Status	☑ On
Bandwidth	○ 1000 Mbps ● 100 Mbps ○ 10 Mbps ☑ Auto
Duplex	○ Half Duplex ● Full Duplex ☑ Auto
MAC Address	0050.0F7B.8803

IP Configuration

IPv4 Address	220.15.2.9
Subnet Mask	255.255.255.0

Tx Ring Limit	10

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
●	Successful	PC3	PC6	ICMP	▮	0.000	N	0	(edit)	(delete)
●	Successful	PC4	PC8	ICMP	▮	0.000	N	1	(edit)	(delete)
●	Successful	PC13	PC1	ICMP	▮	0.000	N	2	(edit)	(delete)

From 220.15.1.8 to 220.15.3.7:

PC3

Physical   Config   Desktop   Programming   Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.3.7

Pinging 220.15.3.7 with 32 bytes of data:

Reply from 220.15.3.7: bytes=32 time=10ms TTL=127
Reply from 220.15.3.7: bytes=32 time=8ms TTL=127
Reply from 220.15.3.7: bytes=32 time=9ms TTL=127
Reply from 220.15.3.7: bytes=32 time=9ms TTL=127

Ping statistics for 220.15.3.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 8ms, Maximum = 10ms, Average = 9ms

C:\>
```

From 220.15.2.8 to 220.15.1.6:

PC13

Physical   Config   Desktop   Programming   Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.1.6

Pinging 220.15.1.6 with 32 bytes of data:

Reply from 220.15.1.6: bytes=32 time=11ms TTL=127
Reply from 220.15.1.6: bytes=32 time=10ms TTL=127
Reply from 220.15.1.6: bytes=32 time=10ms TTL=127
Reply from 220.15.1.6: bytes=32 time=10ms TTL=127

Ping statistics for 220.15.1.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 10ms, Maximum = 11ms, Average = 10ms

C:\>
```
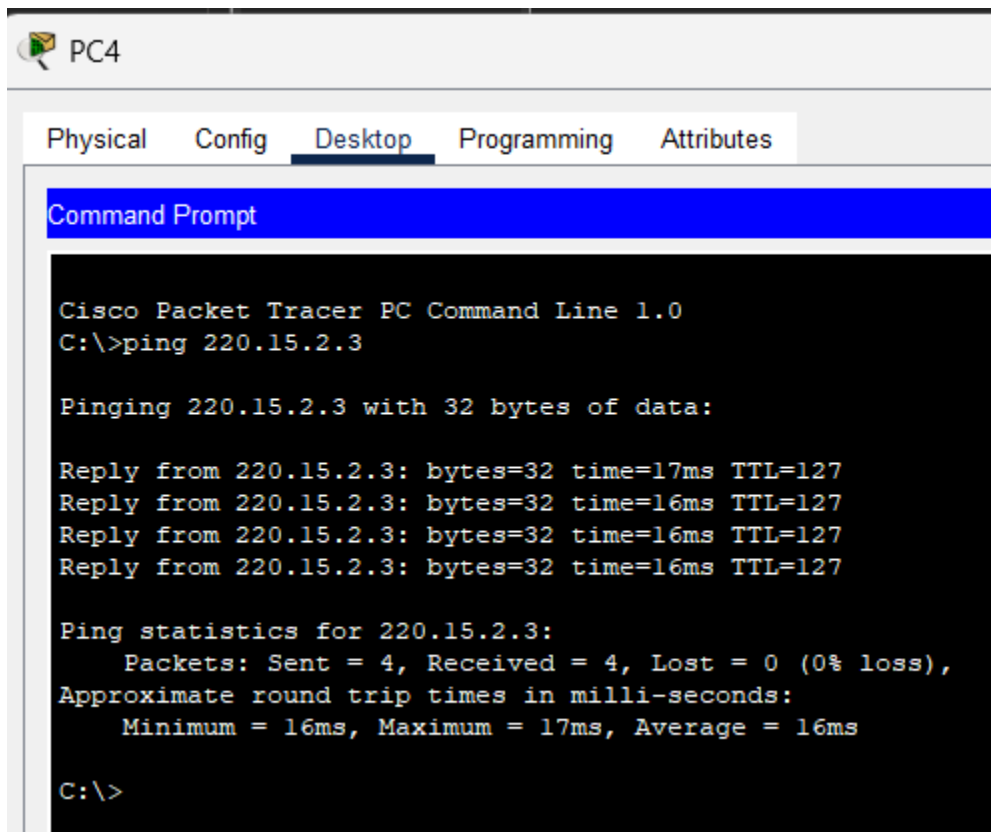
From 220.15.3.5 to 220.15.2.3:

PC4

| Physical | Config | Desktop | Programming | Attributes |

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 220.15.2.3

Pinging 220.15.2.3 with 32 bytes of data:

Reply from 220.15.2.3: bytes=32 time=17ms TTL=127
Reply from 220.15.2.3: bytes=32 time=16ms TTL=127
Reply from 220.15.2.3: bytes=32 time=16ms TTL=127
Reply from 220.15.2.3: bytes=32 time=16ms TTL=127

Ping statistics for 220.15.2.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 16ms, Maximum = 17ms, Average = 16ms

C:\>
```