

**1BM18CS122 VARAD VITHAL**

**KJ EXPERIMENT-2**

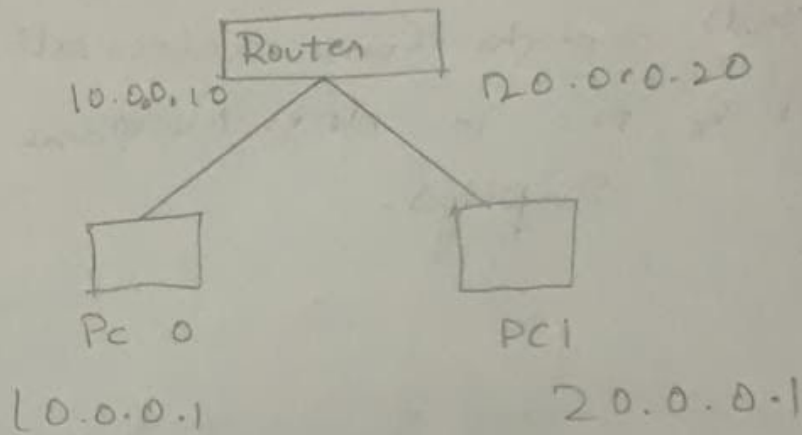
**Working of router**

VARAD VITTHAL  
KJ

IBM18CS122

## Experiment -2

Demonstrate working of a Router



### Procedure:-

- (i) Connect the PC's to the router's interfaces
- (ii) Configure Static IPv4 addresses for each router interfaces & the PC's

(iii) Set the default gateway IPv4 address for the PC's.

(iv) Ping from one PC to another

### CLI commands

(1) enable

2) config t

3) Interface fastethernet 0/0

4) ip address 10.0.0.10 255.0.0.0

5) no shut

### Observation

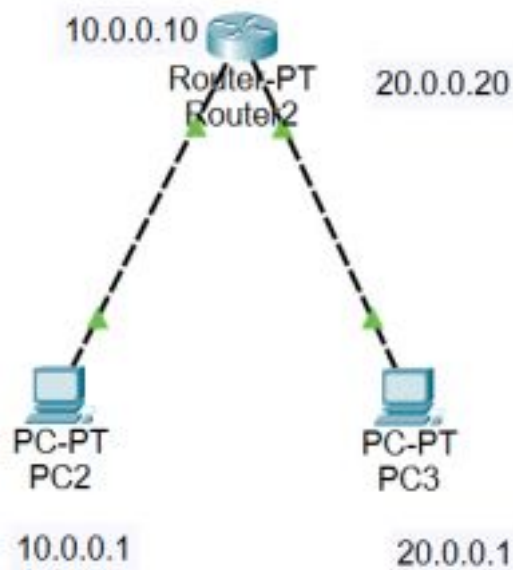
1) The router allows devices of different IP ranges to communicate with each other

2) The router also connects different networks together

3) The router deals with IP address meaning it is a layer-3 device

4) The router offers a default gateway for each network to connect to it.

✓✓✓



Physical Config Desktop Programming Attributes

GLOBAL Settings Algorithm Settings INTERFACE FastEthernet0 Bluetooth

Port Status Bandwidth 100 Mbps Duplex Full Duplex MAC Address 0000.0000.0000

IP Configuration

- ☐ DHCP
- ☒ Static
  - IPv4 Address 10.0.0.1
  - Subnet Mask 255.0.0.0

IPv6 Configuration

- ☐ Automatic
- ☒ Static
  - IPv6 Address
  - Link Local Address fe80::

PC-PT PC2 10.0.0.1

PC-PT PC3 20.0.0.1

Router-PT Router2 10.0.0.10 20.0.0.20

Physical Config Attributes

GLOBAL Settings Algorithm Settings ROUTING Static RIP INTERFACE FastEthernet0/0 FastEthernet1/0 Serial0/0 Serial0/1 FastEthernet4/0 FastEthernet5/0

Port Status FastEthernet0/0 On

Bandwidth 100 Mbps 10 Mbps Auto

Duplex Full Duplex Full Duplex Auto

MAC Address 0000.0000.0000

IP Configuration

- IPv4 Address 10.0.0.10
- Subnet Mask 255.0.0.0

Tx Ring Limit 10

Equivalent IOS Commands

```

Router(config)# interface FastEthernet0/0
Router(config)# ip address 10.0.0.1 255.0.0.0
Router(config)# no shutdown

```

Time: 00:01:52

Realtime Simulate

## **Observation/Output –**

1)The router allows devices on different IP ranges to communicate with each other

2)The router also is used to connected two different Networks together

3)The router offers a default gateway for each network to connect to it from where beyond is the connection to the other networks