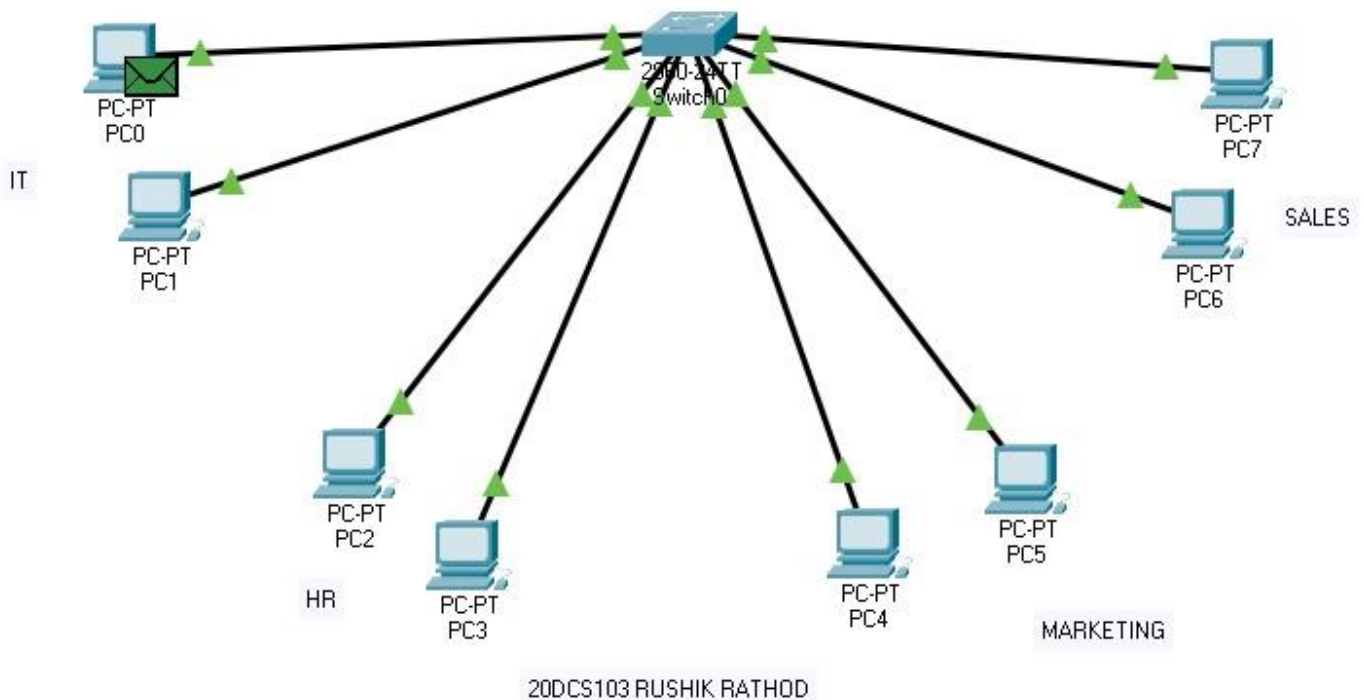


INTERNAL PRACTICAL

AIM:- An arrow company has mainly 4 departments i.e. IT, HR, Marketing, and Sales department. The company wants to configure a single network but virtually divided into 4 departments in such a way that the packets can travel configuration of such network in cisco packet tracer.

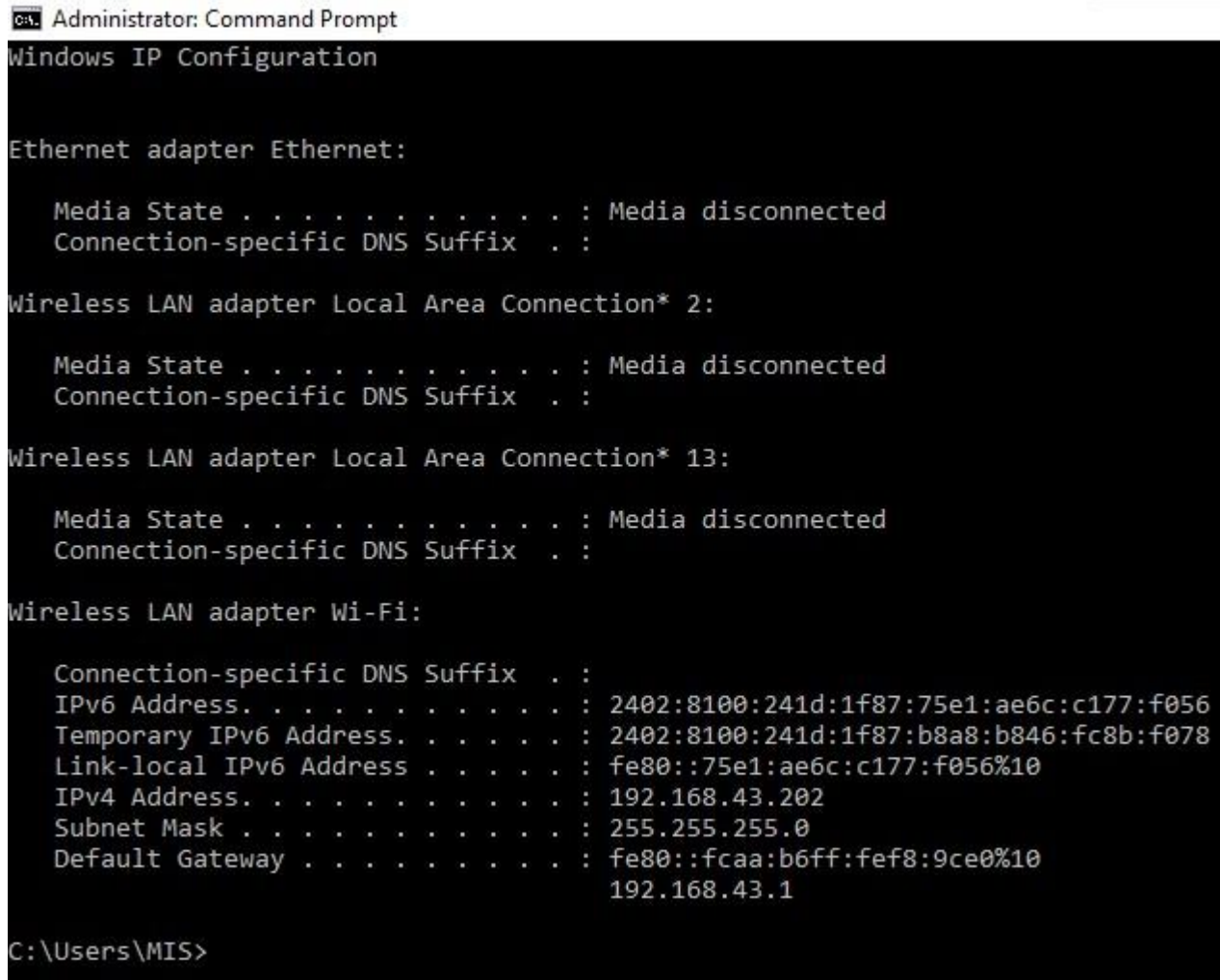
ANSWER:-



- VLAN is basically used to divide different devices logically.
- In this concept the devices with the same broadcast domain will receive the packet which is sent.
- When we want a particular packet to reach to the required destination in the same broadcast and not to reach to the another destinations of the different broadcast, we use this VLAN method.

AIM:- Illustration of various networking commands:

1) ipconfig command:

A screenshot of a Windows Command Prompt window titled "Administrator: Command Prompt". The output shows the results of the 'ipconfig' command. It lists the configuration for three network adapters: Ethernet adapter Ethernet, Wireless LAN adapter Local Area Connection* 2, and Wireless LAN adapter Local Area Connection* 13. All three are shown as 'Media disconnected'. The 'Wireless LAN adapter Wi-Fi' is also listed, showing its IPv6 addresses (2402:8100:241d:1f87:75e1:ae6c:c177:f056, 2402:8100:241d:1f87:b8a8:b846:fc8b:f078, and fe80::75e1:ae6c:c177:f056%10), IPv4 address (192.168.43.202), subnet mask (255.255.255.0), and default gateway (fe80::fcaa:b6ff:fef8:9ce0%10 and 192.168.43.1). The prompt is at 'C:\Users\MIS>'.

```
C:\Users\MIS>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 13:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . :

Wireless LAN adapter Wi-Fi:

    Connection-specific DNS Suffix  . :
    IPv6 Address. . . . . : 2402:8100:241d:1f87:75e1:ae6c:c177:f056
    Temporary IPv6 Address. . . . . : 2402:8100:241d:1f87:b8a8:b846:fc8b:f078
    Link-local IPv6 Address . . . . . : fe80::75e1:ae6c:c177:f056%10
    IPv4 Address. . . . . : 192.168.43.202
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : fe80::fcaa:b6ff:fef8:9ce0%10
                                192.168.43.1

C:\Users\MIS>
```

- ipconfig command basically known as Internet Protocol Configuration which is used to get the information regarding the IP address and subnet mask, etc. We can manage the IP address by using ipconfig command.

2) ping command:

C:\> Administrator: Command Prompt

```
C:\Users\MIS>ping www.quora.com

Pinging quora.map.fastly.net [64:ff9b::c7e8:fd02] with 32 bytes of data:
Reply from 64:ff9b::c7e8:fd02: time=202ms
Reply from 64:ff9b::c7e8:fd02: time=204ms
Reply from 64:ff9b::c7e8:fd02: time=203ms
Reply from 64:ff9b::c7e8:fd02: time=205ms

Ping statistics for 64:ff9b::c7e8:fd02:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 202ms, Maximum = 205ms, Average = 203ms

C:\Users\MIS>_
```

- ping command is basically works on Internet Control Message protocol which tests if the networked device is reachable or not.
- It is also used as a simple way to verify that a computer can communicate over the network with another computer or network device.

3) tracert command:

```
Administrator: Command Prompt

C:\Users\MIS>tracert www.google.com

Tracing route to www.google.com [2404:6800:4009:81b::2004]
over a maximum of 30 hops:

  1     2 ms     1 ms     1 ms  2402:8100:241d:1f87::40
  2     *         *         *    Request timed out.
  3    45 ms    56 ms    40 ms  2402:8100:12:7:0:14:0:3b
  4    25 ms    37 ms    47 ms  2402:8100:12:7:0:14:0:ab
  5    60 ms    38 ms    61 ms  2402:8100:12:7:0:14:0:c3
  6    40 ms    48 ms    28 ms  2400:c700:0:24::98
  7    59 ms     *         *    2400:c700:0:31e::
  8    44 ms    37 ms    66 ms  2400:c700:0:70::e9
  9    52 ms    78 ms    63 ms  2400:c700:0:369::f1
 10    53 ms    50 ms    63 ms  2001:4860:1:1::ea8
 11    53 ms    55 ms    56 ms  2404:6800:8014::1
 12     *         *        89 ms  2001:4860:0:1::5c06
 13    64 ms    50 ms     *    2001:4860:0:1::4c71
 14    49 ms    47 ms    56 ms  bom12s10-in-x04.1e100.net [2404:6800:4009:81b::2004]

Trace complete.

C:\Users\MIS>
```

- The tracert command is used to trace the path between two devices.
- It displays the time consumed in the transferring of the data packets.
- It records the route between the two devices (basically computers) situated at long distance.

Thank You !