

30/7/20

## Practical - 3

### Aim:

To study the packet tracer tool installation and user Interface Overview.

### Steps:

1. From network component box, click & drag & drop the below component.

a) 4 generic pcs & one hub

B) 4 generic pcs & one switch

2. Click on connections:

a) Click on copper straight through cable

b) Select on pc & connect to HUB,

The link LED should glow in green

c) similarly connect 4 pcs to the switch using copper straight through cable

3. Click on the pcs connected to HUB then click 'desktop' then click IP configuration.

a) Enter IP address on IPV4 address box then close

a) click on pdu (message icon) from common tool bar

drag & drop it on one of pc & drop on and then PC

4. observe the flow of PDU from source to destination by clicking simulation on right bottom.
5. Repeat the same for PCs connected to switch
6. Observe

### Observation

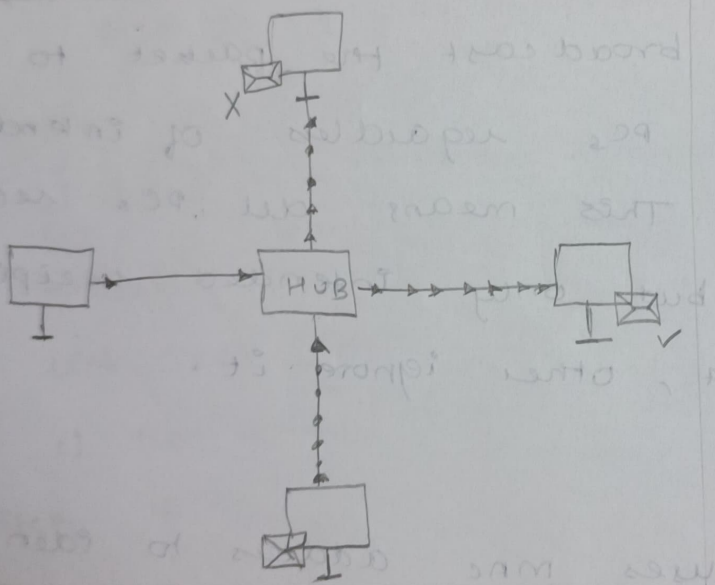
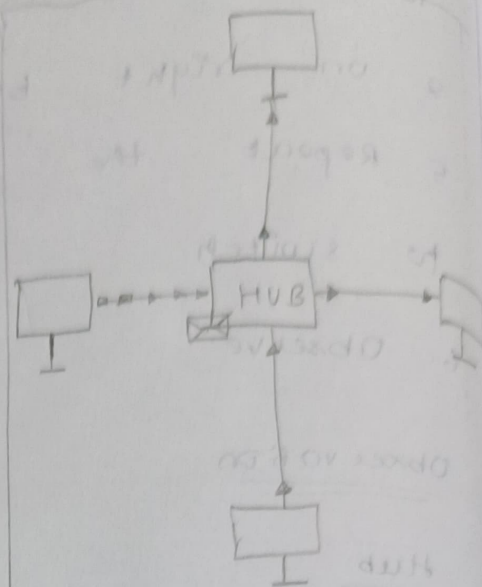
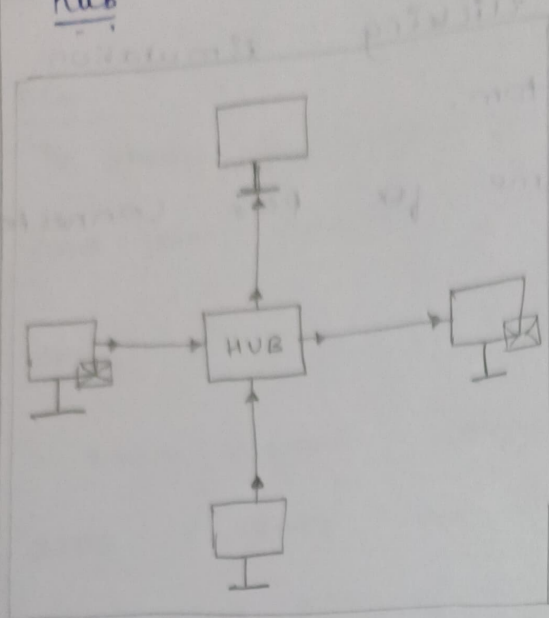
#### Hub

when packet is sent from one PC, the hub broadcast the packet to all connected PCs regardless of intended destination. This means all PCs receive packet but only intended recipient process it, other ignore it.

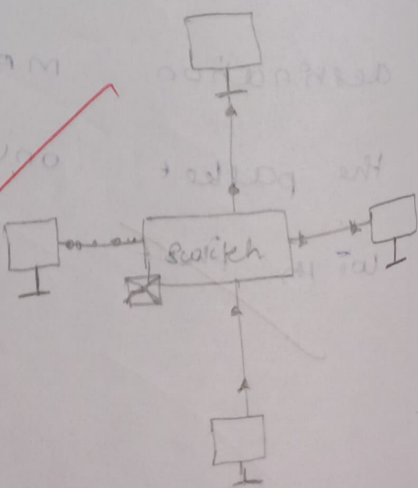
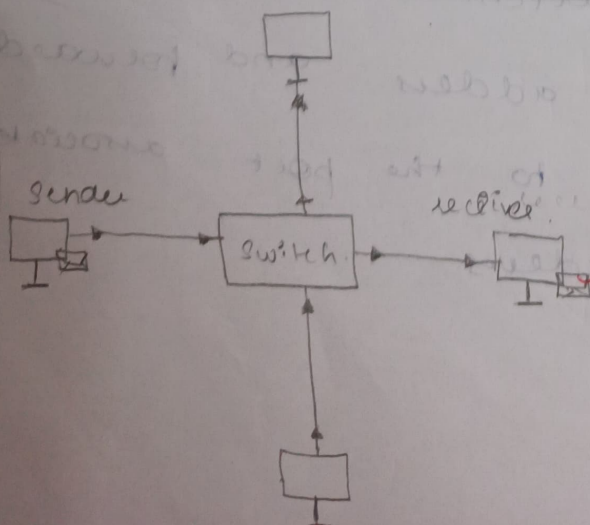
#### Switch

Switch uses MAC address to identify devices. when a packet is sent from the PC, the switch checks the destination MAC address and forwards the packet only to the port associated with that address.

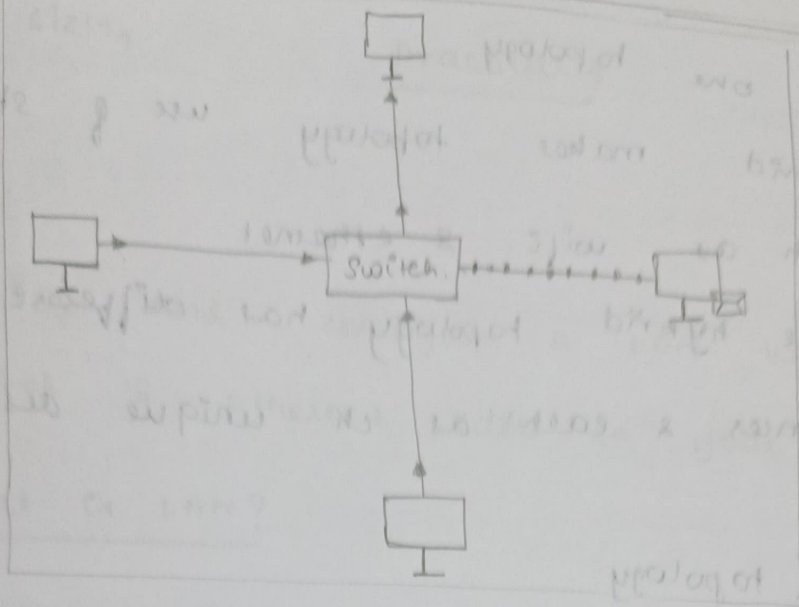
## Hub



## Switch







Network topology implemented in your college

Topology implemented in our college is star topology & hybrid topology.

Characteristics of star topology

- \* all cable run to a central connection point.
- \* if one cable break/fail, only computer connected to that cable is unable to use the network.
- \* As network grows or changes, computer are simple added or removed from central connection point, hub or switch.

Characteristics of hybrid topology

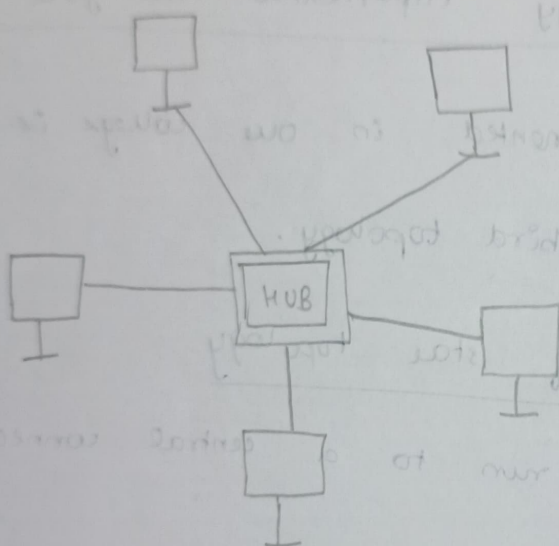
- \* hybrid topology is combination of more

than one topology

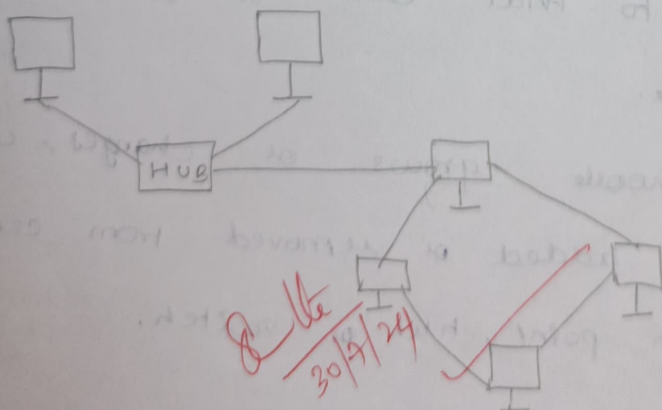
\* hybrid makes topology use of standards such as wifi & ethernet

\* The hybrid topology has different branches & each has its own unique design

Star topology



Hybrid topology



Result:

This successfully studied the packet traces tool and analysed the behaviour of network