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AIM:

To study the packet tracer tool Installation and user Interface overview.

CISCO PACKET TRACER simulator

1. From the network component box, click and drag-and-drop the below components:

a. 4 Generic PC's and one Hub.

b. 4 Generic PC's and one switch

2. Click on connections:

a. click on copper straight-Through Cable,

b. Select one of the PC and connect it to the HUB using cable. The link LED should glow in green, indicating that the link is up.

c. similarly connect 4 PC's to the switch using copper straight-through cable.

3. click and PC's connected to hub, go to desktop tab. click IP configuration and enter IP address.
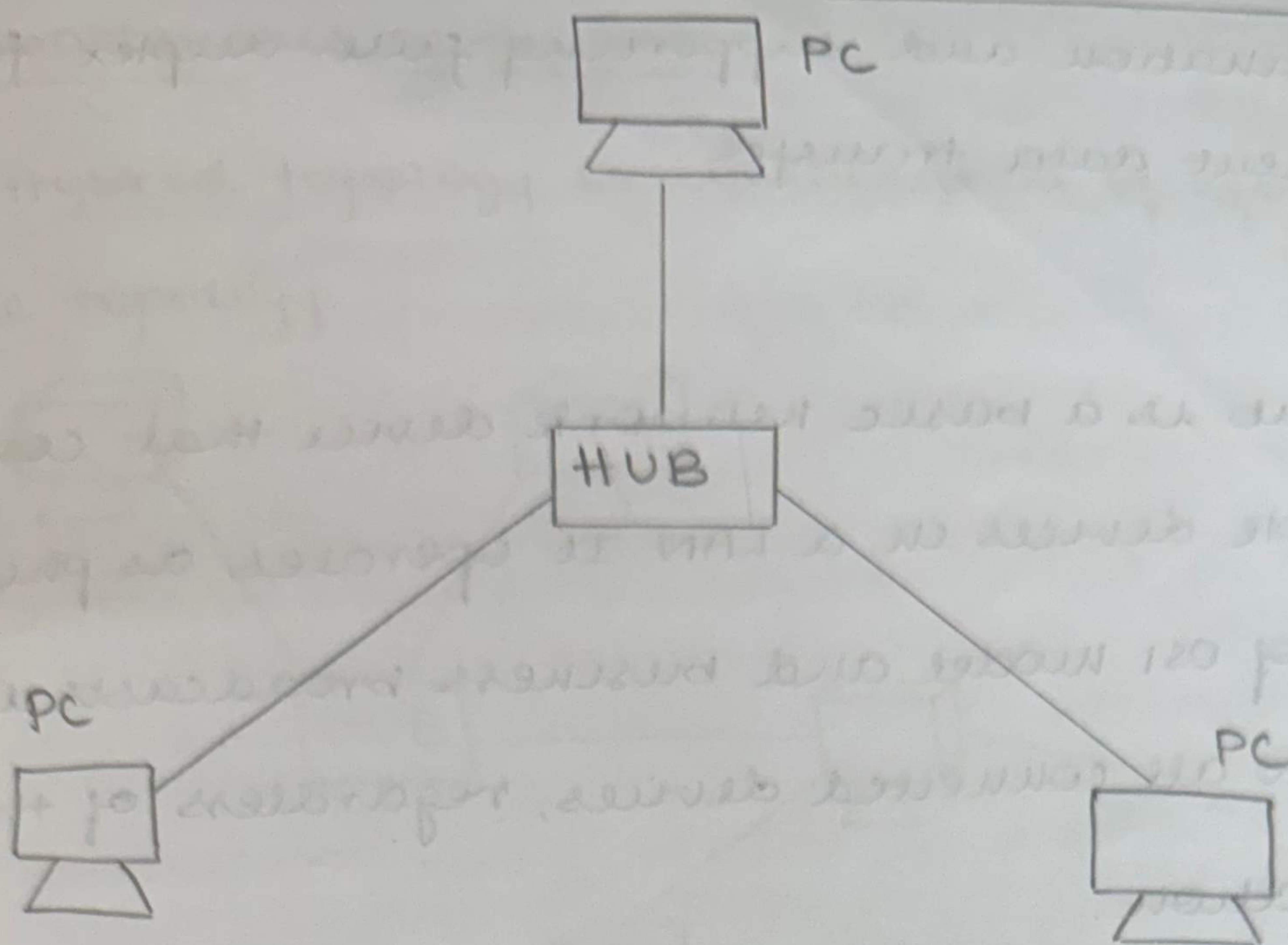
click manage icon from common tool bar,

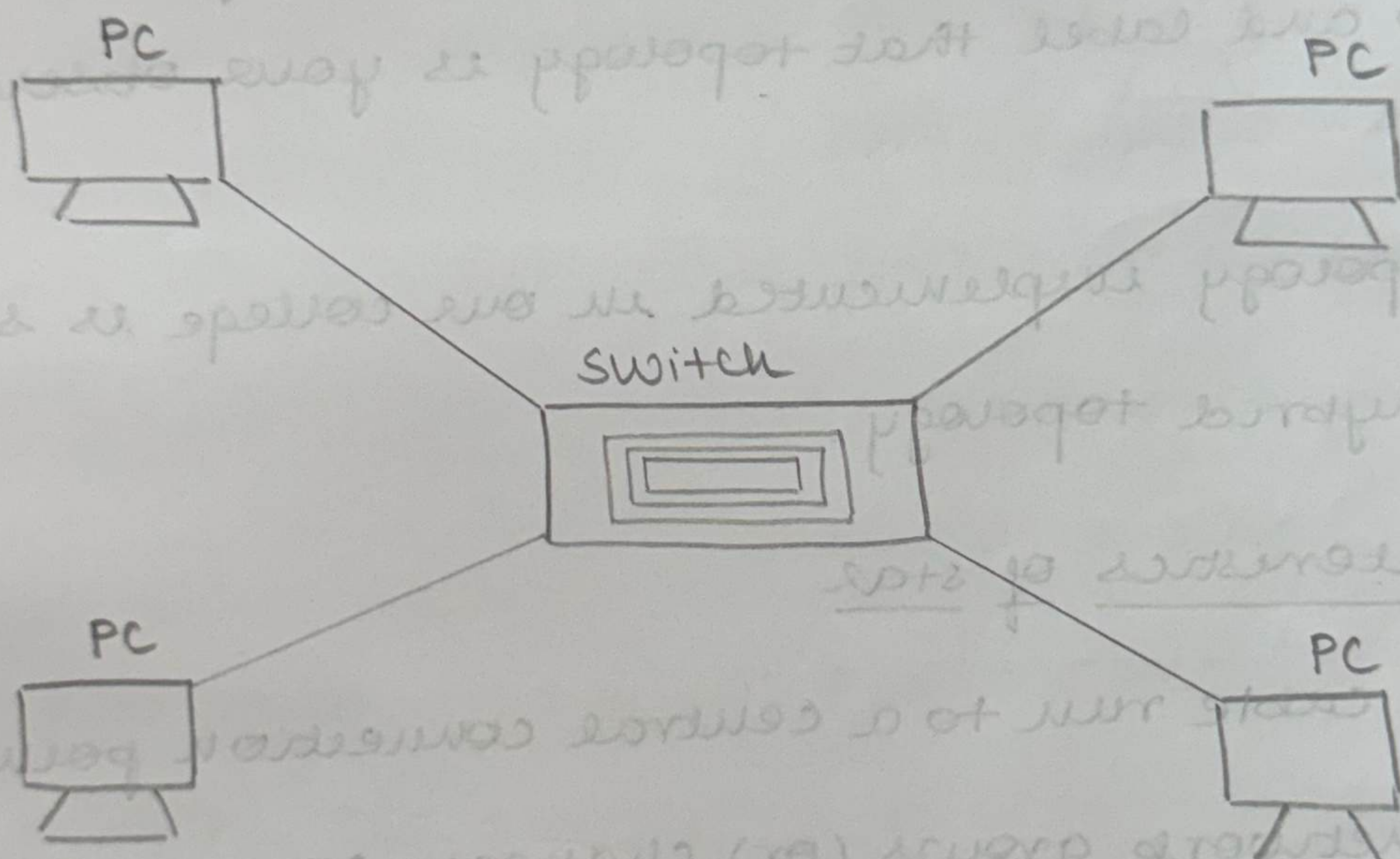a) Drag and Drop it once of PC and drop it on another PC connected HUB.

4. Observe the flow of PDU from sender to receiver by selecting realtime mode of simulation.

5. Repeat step 3 to 5 PC's connected to switch.

PC

HUB

PC   PC

HUB

PC   PC

Switch

PC   PC

Observation:

a) Behaviour of switch and Hub in terms of forwarding the packets received by them.

Switch:

A network switch is a device that connects multiple devices within a LAN and routes data between them using MAC addresses. It operates at the data link layer, directing packets of the correct

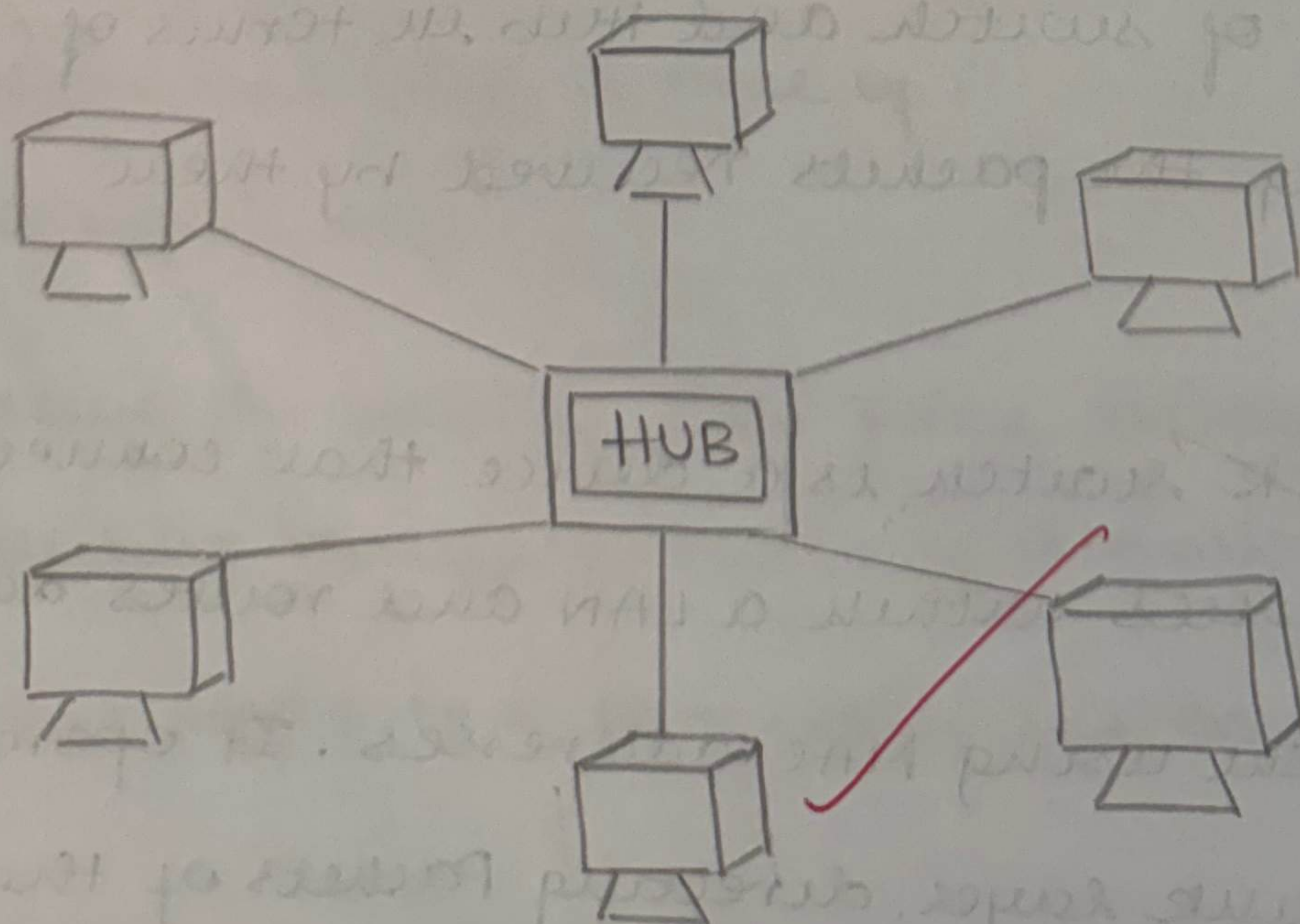destination and supporting full-duplex for efficient data transfer.

Hub:

A Hub is a basic network device that connects multiple devices in a LAN. It operates as physical layer of OSI model and business broadcasts incoming data to all connected devices, regardless of the destination.

b) Network Topology implementation in your college and draw and label that topology is your observation book.

* Topology implemented in our college is star and hybrid topology.
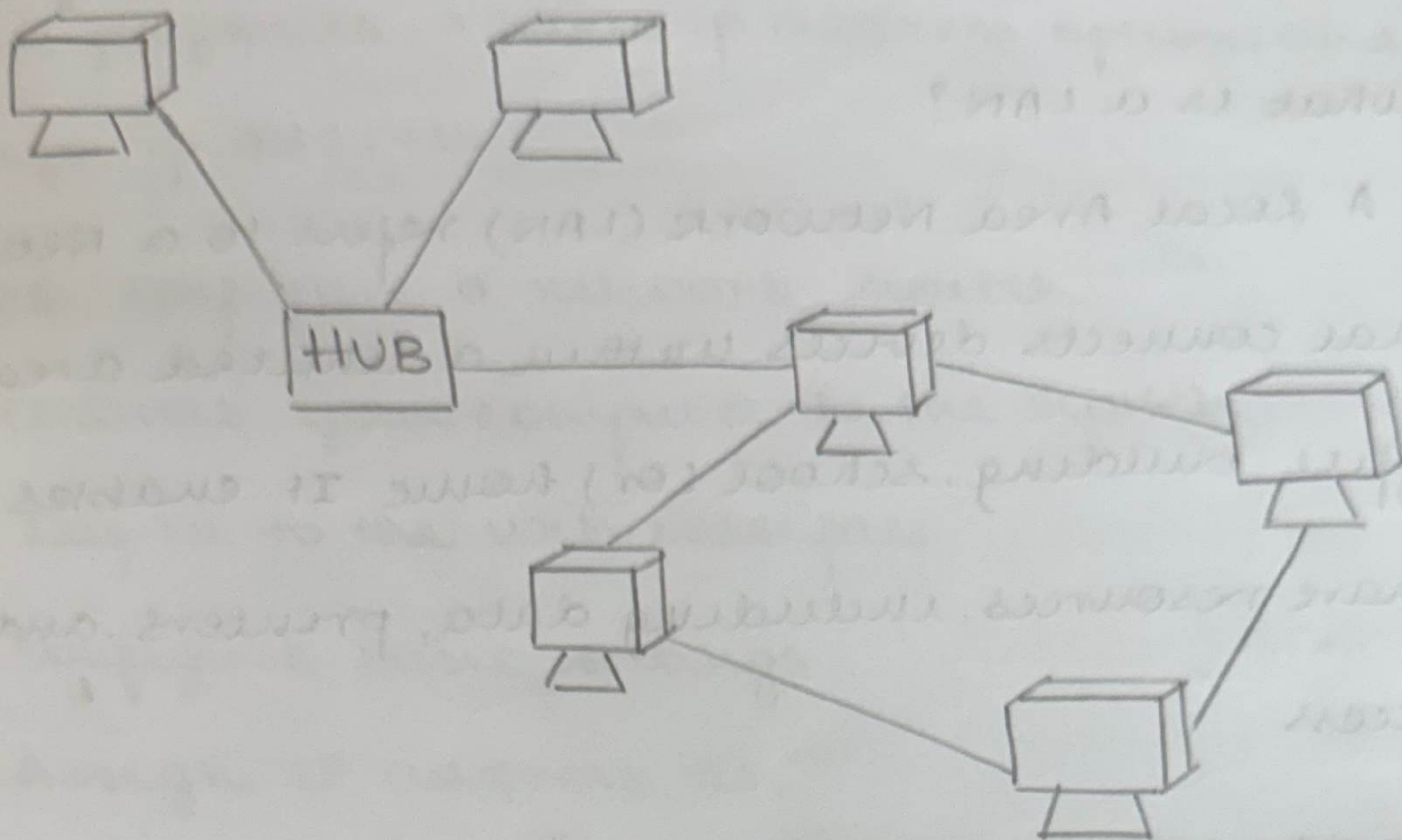
Characteristics of star

→ all cable run to a central connection point.

→ as network grows (or) changes, computer are simple added (or) removed from central connection pt. Hub (or) switch.

Characteristics of Hybrid

→ Hybrid topology is combination of more than one topology.

RESULT:

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Thus successfully studied the packet tracer tool and analysed the behaviour of network.