Arfath Kabir [IBM 18 CS 130]

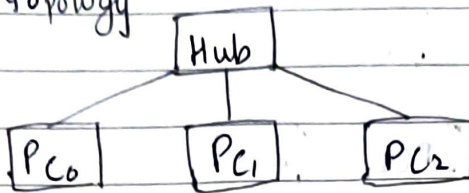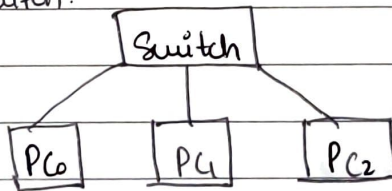i) Topology

Procedure-

1) Place a hub and 3 end device.

2) Use cables to connect the end devices and hub.

3) Set an IP address for each device along with subnet mark

4) Select a simple PDU and a source and destination.

Observation-

Whenever a source nodes sends data in a network, the hub, reciever the data from the sources and sends broadcast over the network. ie it sends data to all remaining nodes in the network and the node destination address matches with the data will accept that data and Acknowledge back and the rest of the nodes just ignore it.
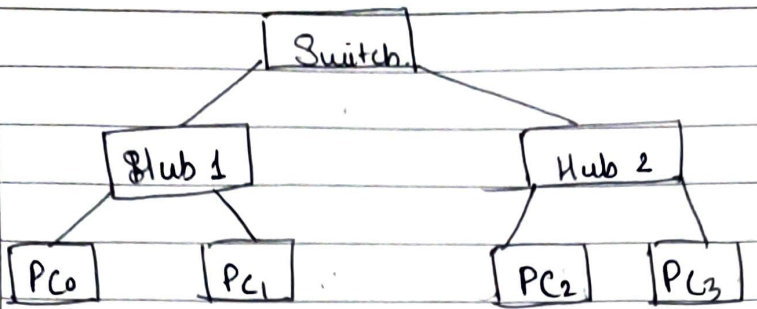
(ii) Switch.

→ Same procedure as the previous one.

Observation.

Here also the end - devices are connected to the single device are connected to the single devices when a source code sends data to the other node then switch recieves the data and sends only to the node whose distination address match.

(iii)

Procedure -

1) Place the network devices and end devices make connections appropriately.

2) Sending a message from PCo to PC2

(i) PCo sends the message, Hub 1 recieves the message and transmits to the PC and the switch PC1 rejects the message or the destination address does not match.

(ii) The switch transmits the message to the Hub 2 then Hub 2 sends to the PC2 and PC3 simultaneously.

(iii) PC2 accept the message and acknowleadge back and rejects the message.