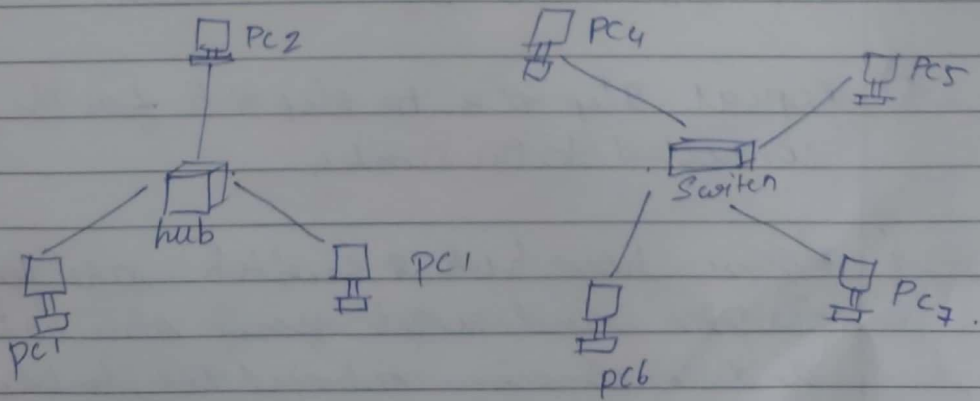
Practical - 3.

Aim: To study the packet tracer tool installation & user interface overview.

d) Analyse the behaviours of network devices using cisco packet tracer simulator.

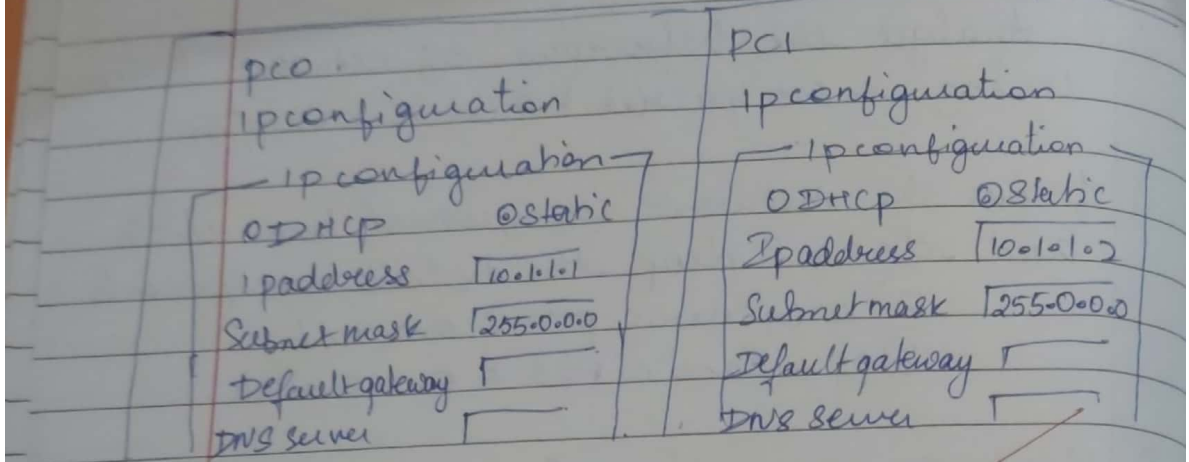
1) From the network component box, click and drag & drop the below components
   a) 4 Generic PCs & one hub.
   b) 4 Generic PCs & one switch

2) Click on connections:
   a) Click on copper straight-through cable.
   b) Select one of the PC & connect it to hub using the cable. The link led should glow in green, indicating that the link is up. Similarly connect remaining 3 PCs to the hub.
   c) Similarly connect 4 PCs to the switch using copper straight through cable.



3) Click on the PCs connected to hub, go to the Desktop tab click on Ip configuration and enter an IP address and subnet mask.

Here the default gateway and DNS server information is not needed as there are only two end devices in the network system.



- Click on PDU (message icon) from the common tool bar.
  a) Drag and drop it on one of the PC (source machine) and then drop it on another PC (destination machine) connected to the hub.

4) Observe the flow of PDU from source PC to destination PC by selecting the Real time mode of simulation.

5) Repeat step #3 to step #5 for the PCs connected to the switch.

6) Observe how hub & switch are forward the PDU and write your observation and conclusion about the behaviour of switch & hub.

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Student Observation

a) from your observation write down the behaviour of switch and hub in terms of forwarding the packets received by them.

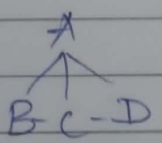
Hub:
* Broadcasts Packets to all ports.
* less efficient ; causes collisons.

Switch: * packets to specific ports based on mac addresses.
* more efficient ; reduces collisons

b) find out the network topology implemented in your college & draw and label that topology in your observation book.

Mesh topology.

All nodes are directly connected to each other.



Result:
Thus the Program is successfully executed and output is verified.

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