

Program 1

Aim: Create a topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrate ping messages.

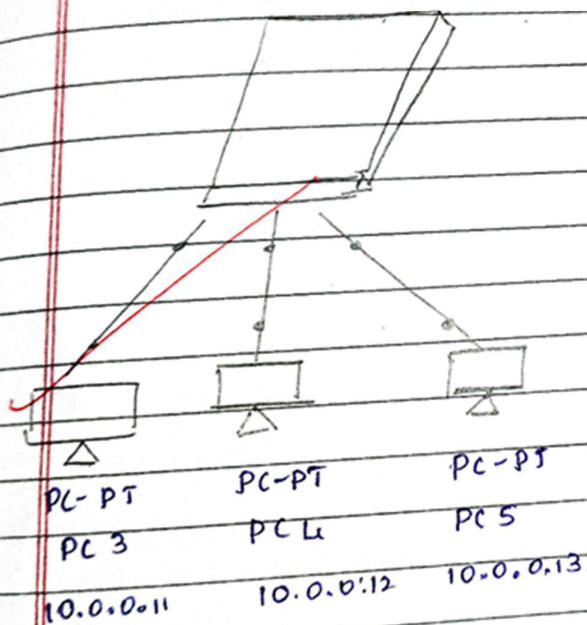
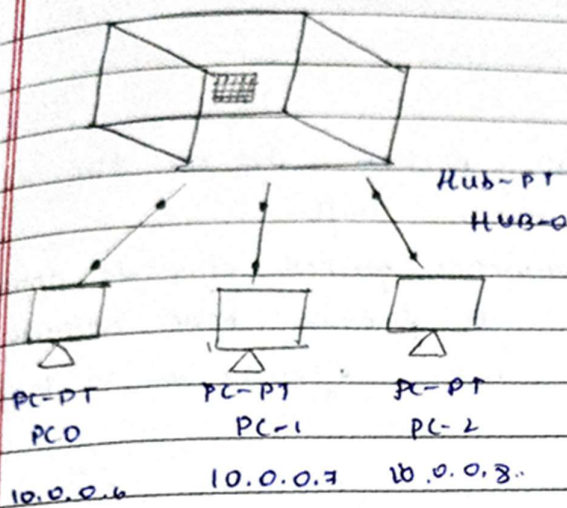
Topology , Procedure and Observation:

Aim: To set up a point network between a PC & a Server, facilitating communication to observe data exchange.

Topology: A PC is connected to server using a crossover ethernet cable.
IP address of PC: 10.0.0.1
Server: 10.0.0.2

Observation: Direct communication allows PC to communicate with server; which is typically, small network for tasks such as file sharing, service requests or testing server network.

② Hubs • and Switches



Aim:- To create a simple network consisting of 3 PCs connected to a central hub another network with 3 PCs connected to a switch. This connection will help observe the behaviour of data transmission using hub and switch devices.

Topology: 3 PCs are connected to a hub & switch using straight through cables

Observation

- Hubs broadcast packets to all the devices which may cause traffic.
- Switches forwards packets only to appropriate device by looking MAC addresses, making it more efficient in traffic handling.

