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IBM18CS135

LAB-3

Topology -


```
                    20·0·0·2              30·0·0·1
                         Router 4

                                                       30·0·0·2
10·0·0·10      20·0·0·1
                                                       40·0·0·10
     Router 3                                          Router 5

       PC0  10·0·0·1                      PC2    40·0·0·1
```
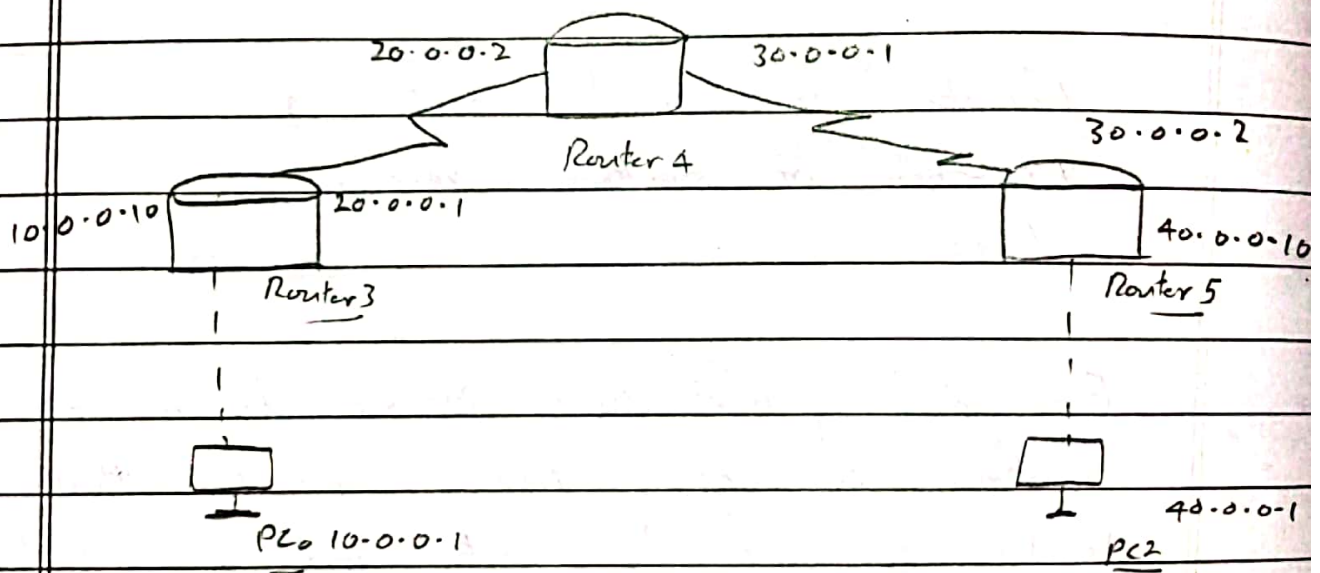
Procedure

i) Connect PC0 , PC2 with Router0, Router2

ii) Connect Router0 with Router1

iii) Connect Router2 with Router1

iv) Use Copper - crossed - over for connection b/w the PC and Router.

v) Use serial DCE for connecting b/w Router0.

- IP Configuration:

i) Set the IP address for both the PC's along with the subnet Mask and Default Gateway.

ii) Configure the gateway for all the routers.

iii) Check all the connections.

iv) Now do ip routing for all the three available routers so as to specify's the route's destination address and the next the hop address.

v) Send a ping from one of the PC's and check whether the packets are being received by the other PC.

- Observation:

i) Once all the connections are done we tried doing the ping, be we got a message that host unreachable which means that the host is not connected.

ii) To for this we need to do Static Routing on all the routers.

iii) After doing Static routing we will be able to send data packets b/w PC's without any loss.

. CLI Commands

i) For Router Configuration.

enable
config t
Interface fastethernet 0/0
ip address 10.0.0.10 255.0.0.0
no shut
ent

ii) For Static Routing for Router 3

enable
config t
ip route 10.0.0.0 255.0.0.0 30.0.0.01
ip route 20.0.0.0 255.0.0.0 30.0.0.1

iii) Static Routing for Router 4

ip route 10.0.0.0 255.0.0.0 20.0.0.1
ip route 40.0.0.0 255.0.0.0 30.0.0.2

iv) Static Routing for Router 5

ip route 10.0.0.0 255.0.0.0 30.0.0.1
ip route 20.0.0.0 255.0.0.0 30.0.0.1