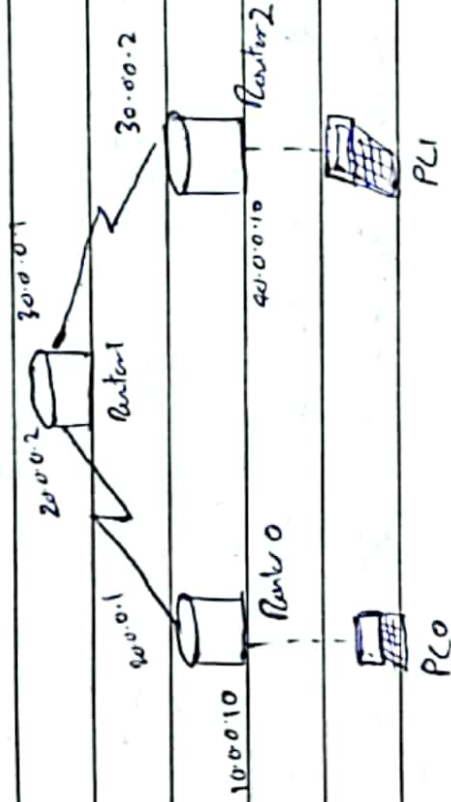


LAB-4 (a)

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Q4a) Configuring default Route for a Router.

* Topology -



* Procedure -

• Connections -

- i) Connect PC0, PC1 with router 0 and router 2.
- ii) Connect Router 0 to Router 1.
- iii) Connect Router 1 to Router 2.
- iv) Use copper-crossed DCE for connecting b/w Router / PC.
- v) Use Serial DCE for connecting b/w Router 0.

* 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) We now perform Static Routing by specifying a default gateway for Router 0 and Router 2 as 20.0.0.2 and 30.0.0.1. Do normal static Routing for Router 1.
- v) After setting up the Default Gateway, we ping from PC to PC or vice-versa to check if the packets are being transferred.

* Observations-

- i) Before doing Static Routing, if we tried pinging we would get host unreachable message.
- ii) To fix it we do Static Routing.
- iii) Once routing is done, all 4 packets will be pinged.

* CLI- Commands -

i) For Router Gateway Configuration.

enable

conf t

interface FastEthernet 0/0

ip address 10.0.0.10 255.0.0.0

no shut

exit

ii) Static Routing for Router 0 (Default Routing)

enable

conf t

ip route 0.0.0.0 0.0.0.0 20.0.0.2

iii) Static Routing for Router 2 (Default Routing)

enable

conf t

ip route 0.0.0.0 0.0.0.0 30.0.0.1

iv) For Router 1

ip route 40.0.0.0 255.0.0.0 30.0.0.2

ip route 10.0.0.0 255.0.0.0 20.0.0.1