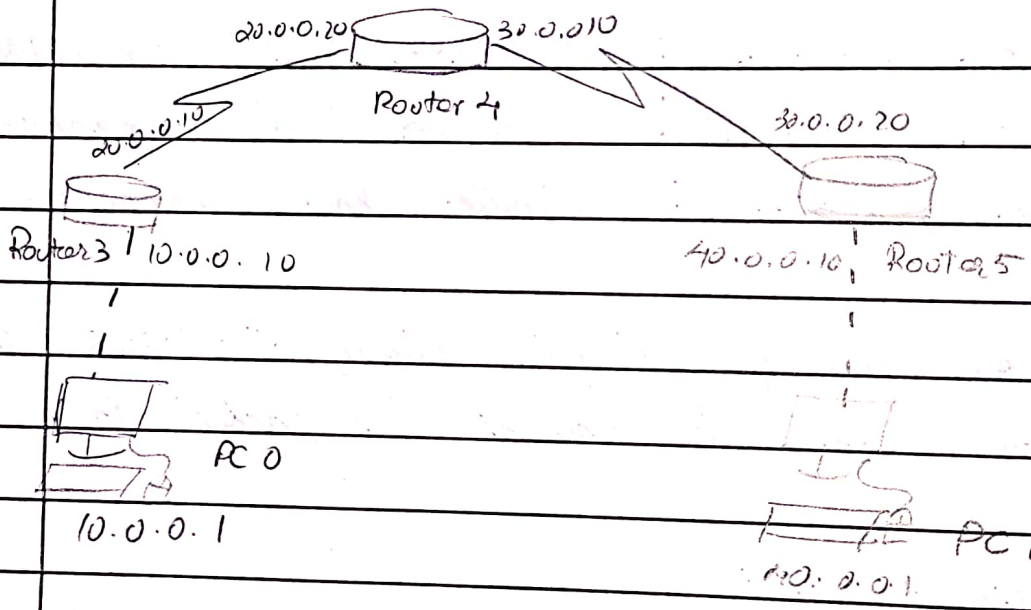
Configuration of default route and static route.

Aim:

Configure default route and static route to the router.

Topology



Procedure:

1. Add two end devices and three routers to the workspace
2. Connect routers through serial DTE cable and end devices through copper cross over cable
3. Assign IP addresses to the end devices

End device 1 : 10.0.0.1

End device 2 : 40.0.0.1

④ Configure gateways through the following CLI command

ⓐ Enable

ⓑ config t

ⓒ interface <port>

ⓓ ip address <ip address> <subnet mask>

ⓔ no shut

ⓕ exit

⑤ Using command line interface:

ip route 0.0.0.0 0.0.0.0 0.0.0.0 <destination ip>

⑥ Ping from one end device to another

Ex: ip route 0.0.0.0 0.0.0.0 0.0.0.0 40.0.0.1

Result

Pinging 40.0.0.1 with 32 bytes of data:

Reply from 40.0.0.1 : bytes = 32 time = 2ms TTL = 125

Reply from 40.0.0.1 : bytes = 32 time = 9 ms TTL = 125

Reply from 40.0.0.1 : bytes = 32 time = 2 ms TTL = 125

Reply from 40.0.0.1 : bytes = 32 time = 10 ms TTL = 125

Ping statistics for 40.0.0.1 :

Packets : Sent = 4, Received = 4, Lost = 0 (0% loss)

Approximate round trip time in milliseconds:

Minimum = 2 ms, Maximum = 10 ms, Average = 5 ms.

Observation

→ Routers are seen to connect 2 different networks together.

→ If a router has only one path to traverse. Default Routing to send packets of any destination, to its adjacent device. Router 0 & Router 1

→ End devices send the packet to the routers which then redirect it to the appropriate destination.

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