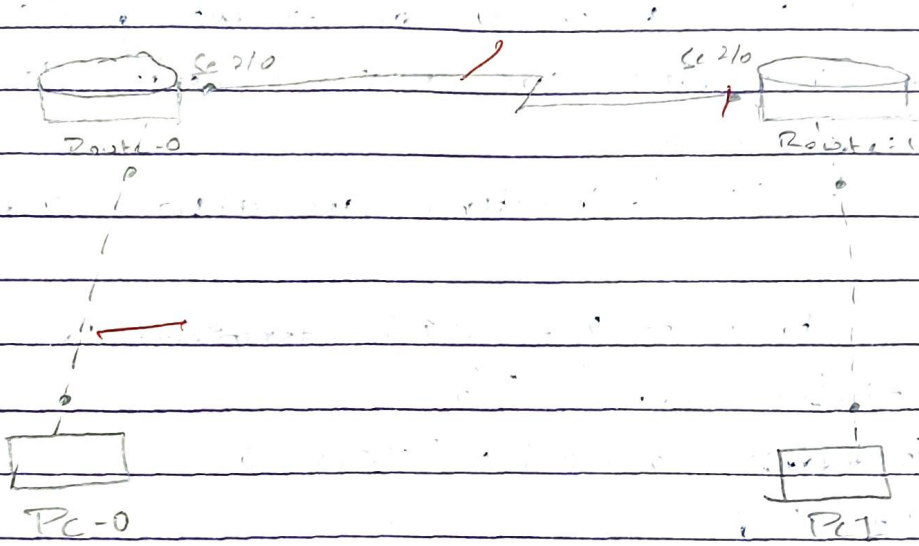
Experiment - 3

Objective: To create 2 Network using 2 router with 2 end devices.

Topology



Procedure

Step 1: Place 2 generic PC and 2 Routers

Step 2: Connect PC-0 to Router-0 with copper crossover cable and PC1 to Router-1 with copper crossover cable

Step 3: Connect Router0 to Router1 with serial DCE cable

Step 4: Select PC-0 config -> Fastethernet0 set IP address 10.0.0.1 and set gateway as 10.0.0.2

Step 5: select PC1 config -> Fastethernet0 set IP address 20.0.0.1 and set gateway as 20.0.0.2

Step 6 :- Select Router 0 & goto CFI
Execute the following commands
> enable
config terminal.
interface FastEthernet 0/0
ip address 10.0.0.1 255.0.0.0
no shut
notice PC0 & route 0 are successfully connected repeat the same procedure for route 1 with ip address 20.0.0.1 255.0.0.0
notice PC1 & router1 are also successfully connected
Step 7 :- Go to route 0 -> CFI terminal & execute the following
interface serial 2/0
ip address 30.0.0.1 - 255.0.0.0
no shut
goto route 1 -> CFI : config terminal & execute
interface serial 2/0
ip address 30.0.0.2 255.0.0.0
no shut
notice route 0 & route 1 are successfully connected
Step 8 :- got to PC0 -> Desktop -> command prompt & run
Ping 20.0.0.1
Ping 30.0.0.2
Ping 30.0.0.1
& observe the Output

Observation :

1] All PC's and router are connected successfully

2] Ping 20.0.0.1 & Ping 30.0.0.2 are unsuccessfully & show destination host unreachable. This happens because they are not neighbor network with 10.0.0.1

3] Ping 30.0.0.1 will be successfully.

Router> ip route 30.0.0.0 255.0.0.0 20.0.0.2