Lab 6(A):-

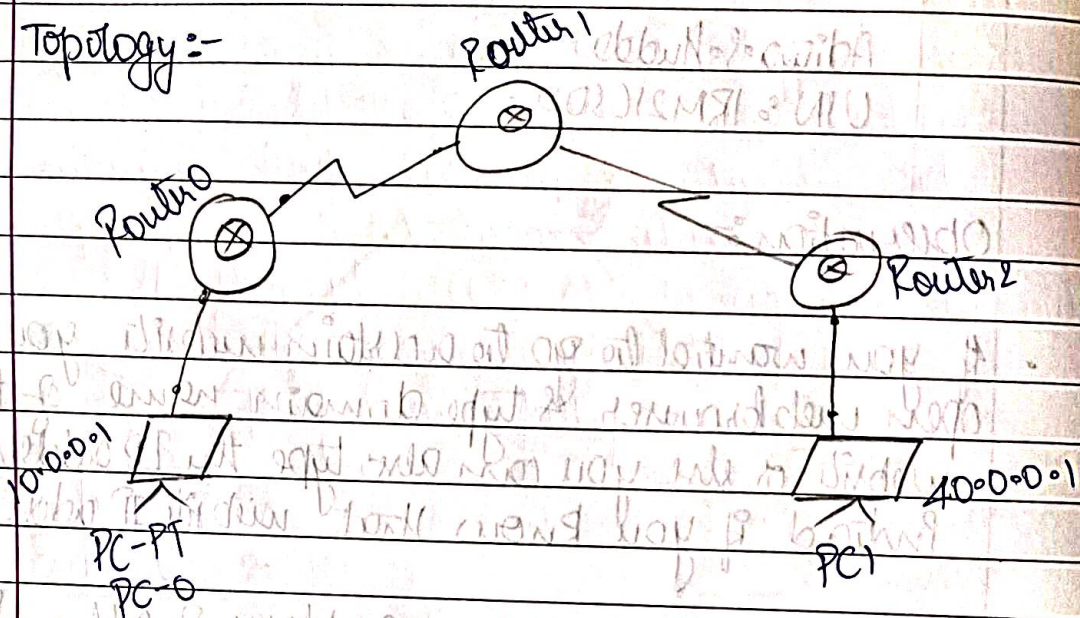**Aim:-** Configuring RIP Routing Protocol in Routers

Topology:-

Procedure:-

i) 3 Routers & 2PC's are connected as shown in topology

(ii) configure the PC's with proper IP address & gateway address.

(iii) Similarly, configure the router's with the proper IP address in CLI mode.

→ No Enable
→ Config T
→ Interface fastEthernet 0/0
→ IP address 10.0.0.1   255.0.0.0
→ Encapsulation PPP
→ clockRate 64000
→ no shut.

(iv) the encapulation ppp should be given to all router & clockrate 64000 should be given to router which have clock symbol beside them.

(v) For making router to know about the other devices, or we use routing protocol algorithm that itself makes the router to know other devices.

router rip
network 20.0.0.0 } Router 2
network 30.0.0.0

router rip
network 30.0.0.0 } Router 3
network 40.0.0.0

router rip
network 10.0.0.0 } Router 1
network 20.0.0.0

Ping output :-

PC > ping 40.0.0.1
pinging 40.0.0.1 with 32 bytes of data
Reply from 40.0.0.1 ; bytes = 32 time: 0ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time: 0ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time: 0ms TTL: 128
Reply from 40.0.0.1 bytes = 32 time: 0ms TTL: 128

ping statistics from 40.0.0.1
packets sent = 4 Recieved= 4 Lost = 0 (0% Loss)

Approximate round trip times in ms
minimum = 0ms, maximum = 0ms Average = 0m

Observation:

RIP is the routing information protocol. It is a distance vector protocol that uses hop count as it primary metric. RIP defines how router should share information when moving traffic among an interconnected group of local area networks

the RIP protocol here used to connect the router to one other PC's using RIP protocol & message is pinged successfully.

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