1b) RIP Simulation

AIM:- To Simulate RIP (Routing Information Protocol) in Cisco Packet Tracer and verify dynamic routing between routers.

Initial IP Configuration:-

* PCs and routers assigned IP addresses on FastEthernet and Serial interfaces as per topology.
* Serial interfaces on DCE side Configured with clock rate & Bandwidth.
* Interfaces brought up using no Shutdown command.

RIP Configuration:-

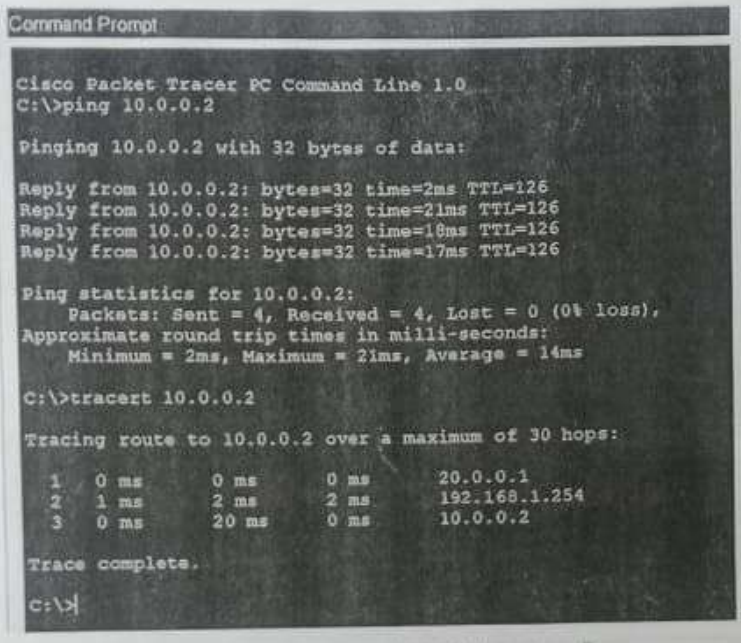
* Enable RIP on each router using router rip comma
* Advertise directly connected networks using netwo <network-address> Command.

Network Connectivity Verification:-

* Use ping from PC0 to PC1 to verify end-to-end connectivity.
* Two routes Exist between PC0 & PC1; RIP Selects the route with least hop count by default.
* Use tracert to verify the path taken by packets.

Dynamic Route Failover:-

* Simulated link failure by disconnecting Router Serial 0/0/1 to Router 2 Serial 0/0/1
* RIP automatically rerouted traffic via alternate path (Through Router 1) without manual intervention.



Result :-

Static routing and RIP were successfully configured in Cisco Packet Tracer; connectivity between PC's was verified, and backup/alternate routes worked correctly during link failure.