

5/10/25

## Experiment - 11

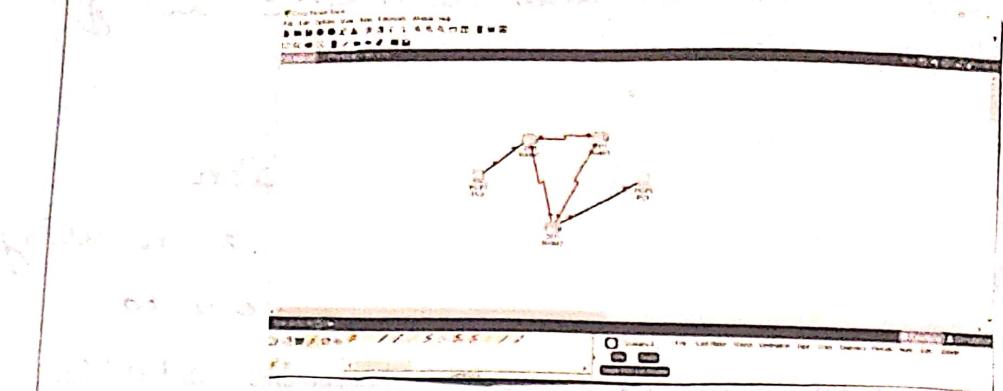
Simulate static routing configuration using Cisco packet tracer.

### (a) AIM: Static Routing configuration

To simulate static routing configuration using Cisco packet tracer & understand how to manually add, verify and manage static routes in a network.

### Procedure:

- 1) open Cisco packet tracer & create 3 routers (R0, R1, R2) with PCs.
- 2) connect router and PCs using proper cables.
- 3) Assign IP address to all interfaces based on the given network table.
- 4) configure static routes on each router for networks not directly connected.
- 5) Verify routing table to check main and backup routes.
- 6) Test connectivity using ping & trace between PCs.
- 7) simulate link failure by removing a connection and check backup route.
- 8) Delete static route if needed using router CLI.

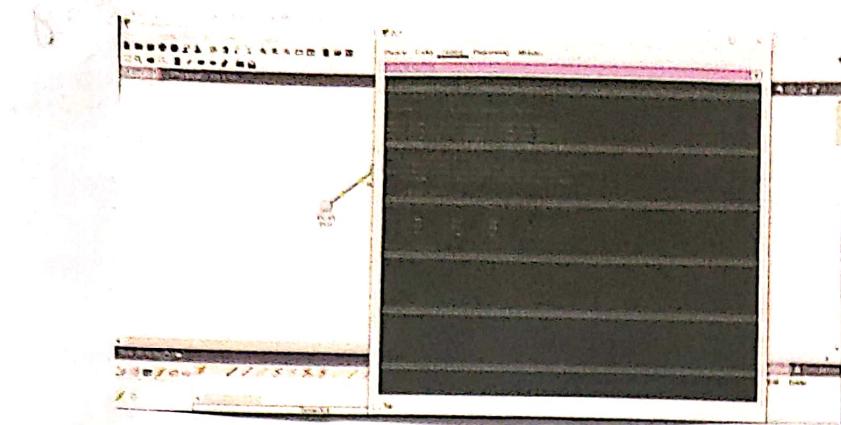


### b) AIM: RIP configuration

To simulate routing Information protocol (RIP) using cisco packet tracer & understand how routes automatically share routing information within a network.

### Procedure:

- 1) Create a network using 3 routes (R<sub>0</sub>, R<sub>1</sub>, R<sub>2</sub>) & 2 PCs.
- 2) connect all devices & assign IP addresses as per table.
- 3) enable all interfaces of routes.
- 4) enable RIP protocol on all routes & add network addresses.
- 5) check routing table entries learned through RIP
- 6) verify network connectivity using ping btw PCs.



Simulated static routing configuration for  
two routers connected via serial link.

(Cisco router 1 has IP address 192.168.1.1)

(Cisco router 2 has IP address 192.168.2.1)

(two routers connected via serial link)

(Configuration)

R1

R2

Serial

Link

Line

Port

Serial