

Ex 11

## Routing at Network Layer

Aim: (a) Simulate Static Routing Configuration using Cisco Packet Tracer.

The process of adding static routes to the routing table is known as static routing. To understand how to use static routing to create and add a static routes to routing table.

### Network Setup:

- \* Three routers: Router 0, Router 1, Router 2.
- \* Each router has directly connected networks & requires static routes for unreachable networks.

### Router 0 Configuration:

- \* Routes to 30.0.0.0/8 via Router 1 (main) &

Router 2 (backup).

- \* Host Route 30.0.0.0/24 via Router 2 (main) &

Router 1 (backup).

- \* Routes to 50.0.0.0/8 via Router 2 (main) and

Router 1 (backup).

### Router 1 Configuration:

- \* Routes to 10.0.0.0/8 via Router 0 (main) and Router 2

(Backup).

- \* Routes to 400.0.0.0/8 via Router 0 (main) and Router 2

(Backup).

### Router 2 Configuration:

- \* Routes to 10.0.0.0/8 and 30.0.0.0/8 networks.

### Verification:

- \* Show ip route static used to verify routing table entries.

- \* ping and Tracert used to confirm data path.

### Failure Simulation:

- \* Link between Router 0 and Router 1 removed to the failure. & Router switched to backup Route successfully.

