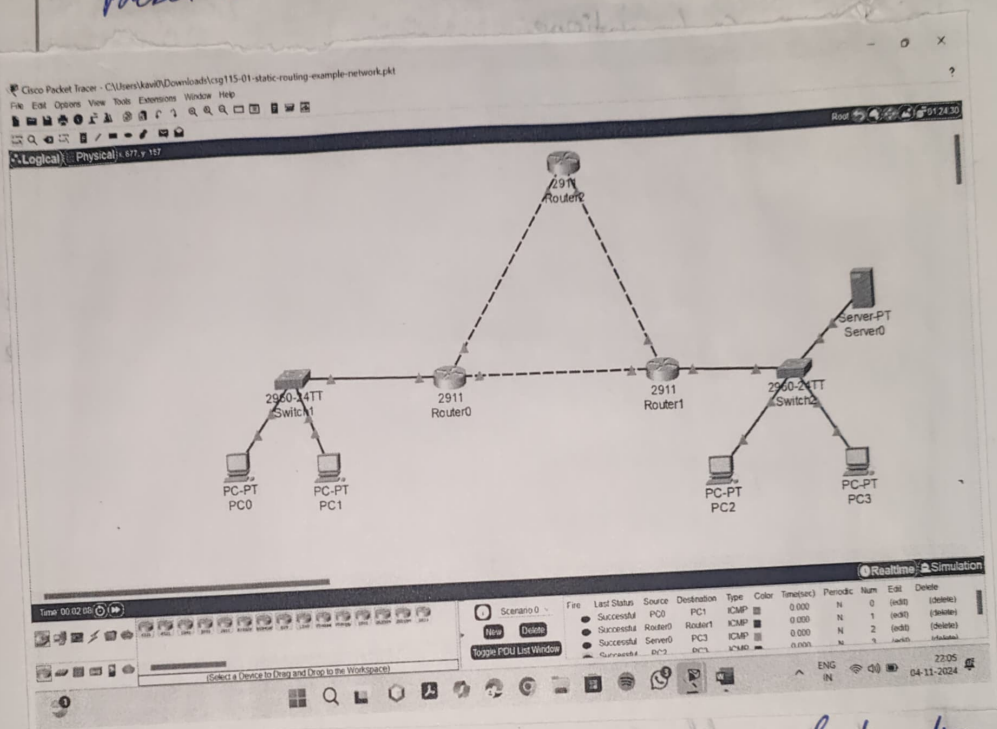# Pratical - 11.

AIM:

a] Simulate Static Routing configuration using CISCO Packet Tracer.

create a Packet trace lab as shown in the following image or download the following Pre created lab and load in Packet Tracer.

Packet Tracer Lab with Initial IP configuration.

If we specify two routes for same destination, the router automatically selects the best route for the destination and adds the route to the routing table. If you manually want to select a route than router.

ip route 30.0.0.0 255.0.0.0 20.0.0.2 10
ip route 30.0.0.0 255.0.0.0 40.0.0.2 20

creating, adding, verifying static routers:-

Routers automatically learn their connected network. We only need the add router for network that are not available on the router's interface.

Router	Available networks on local Interfaces	Network Available on other' router's Interface.
Router0	10.0.0.0/8, 20.0.0.0/8, 40.0.0.0/8	30.0.0.0/8, 50.0.0.0/8 :MIA
Router 1	20.0.0.0/8, 30.0.0.0/8, 50.0.0.0/8	10.0.0.0/8, 40.0.0.0/8
Router 2	40.0.0.0/8, 50.0.0.0/8	10.0.0.0/8, 20.0.0.0/8, 30.0.0.0/8 :

Router 0 Configurations.

Router >enable
Router # configure terminal
Router (config) # ip route 30.0.0.0 255.0.0.0 20.0.0.2 10
Router (config)# ip route 30.0.0.0 255.0.0.0 40.0.0.2 20
Router (config) # ip route 30.0.0.100 255.255.255.255 40.0.0.2 10
Router (config) # ip route 30.0.0.100 255.255.255.255 20.0.0.2 20
Router (config) # ip route 50.0.0.0 255.0.0.0 40.0.0.2 10
Router (config) # ip route 50.0.0.0 255.0.0.0 20.0.0.2 20
Router (config) # exit
Router # show ip route static.

Router 1 configuration:-

Router >enable
Router # configure terminal
Router (config) # ip route 10.0.0.0 255.0.0.0 20.0.0.1 10
Router (config) # ip route 10.0.0.0 255.0.0.0 50.0.0.1 20
Router (config) # ip route 40.0.0.0 255.0.0.0 20.0.0.1 10
Router (config) # ip route 40.0.0.0 255.0.0.0 50.0.0.1 20
Router (config) # exit
Router # show ip route static

S 10.0.0.0/8 [10/0] via 20.0.0.1
S 40.0.0.0/8 [10/0] via 20.0.0.1

Router 2 Configuration

Router > enable

Router # configure terminal

Router (config) # ip route 10.0.0.0 255.0.0.0 40.0.0.1

Router (config) # ip route 30.0.0.0 255.0.0.0 50.0.0.2

Router (config) # exit

Router # show ip route static

S 10.0.0.0/8 [1/0/0] via 40.0.0.1

S 30.0.0.0/8 [1/0] via 50.0.0.2

Verifying Static Routing :-

On Router 0, we configured two routes of network 30.0.0.0/8. These routes are via Router 1 and via Router 2. we set the first route as the main route and the second route as the backup route. we can verify this configuration in two ways.

Delete Static Routing.

• use the show ip route static command to print all static routes.

• Note down the route you want to delete.

• use the 'no ip route' command to delete the route.

Result:-

Thus, Static Routing configuration using CISCO packet tracer is executed successfully.