

EX-NO: 10
3/10/24

INTERNETWORK USING DHCP

AIM:-

Design and configure an internetwork using DHCP server.

STUDENT OBSERVATION:-

1) Write down the key features configuring router and DHCP server

router configuration on:

→ Enabling DHCP server to assign IP addresses to devices.

→ providing connection to the DHCP server configuration.

→ Automatic IP address for device joining the network.

→ Setting up pool ranges IP address

→ Configuring default gateway

2). What is the significance of DHCP in internet working?

→ A dynamic host configuration

5). Testing route

→ Test ping from

⇒ ∞
main route

6) selection

b) 1) S

2) A

P

3) C

4) D

5) E

for

Ex-no: 11

10/10/24

AIM:-

TCP/UDP SOCKETS

Static routing configuration.

a). Simulate static routing configuration using Cisco Packet Tracer.

b). Simulate RIP using Cisco Packet-Tracer.

a) i). Adding static router: each router knows only the networks directly connected to it. add static route to reach a network not directly connected.

eg: router0, networks 10.0.0.0/8, 20.0.0.0/8, 40.0.0.0/8 are directly connected but 30.0.0.0/8 & 50.0.0.0/8.

2) Creating main, Backup Router Administrative Distance decides preference of routes. The lower the AD, the higher the preference.

3). Router configuration.

configure static router on each router for networks not directly connected.

4). Verifying Router:-

Verify router by using commands.
show ip route static

5). Testing route fail over:

→ Test connectivity using tracer or ping from a device on a connected network.
⇒ If connected "break" the link on the main route.

6) Deleting a static route.

show ip route static

b) 1) Initial IP configuration for devices.
2) Assign IP addresses to devices - from PC & routers.

3) Enable, configure interface on routers.

4) Configure RIP on routers.

5) Verify and test redundancy

- use ping command on PCs.

- Use tracer to see RIP redundancy traffic through an alternate route.

19/11/24