Assignment No. 6

Que-1 What is DHCP server ? How we use this server and its benefits ?

Ans -

DHCP server : (Dynamic Host Configuration Protocol)
It is a network server that automatically provides and assigns IP addresses default gateways and other network parameters to client devices. It relies on the standard protocol known as DHCP to respond to broadcast queries by clients.

How to use a Router/Switch as DHCP server -

DHCP has a key role in communication between private LAN to Public LAN. Whenever system wants to communicate any system we in WAN, it's request will be routed through DHCP server. It is very easy to configure system manual if LAN is small also DHCP is used.

Benefits -

- Reliable IP address configuration
- Reduced Network administration

Que-2 Define :
a) PING   b) IPCONFIG

GOOD WRITE

c) NETSTAT   d) TRACEROUTE

Ans -

a) PING - Most commonly used tool, this tool is used to test connectivity between requesting host and destination host.

eg: Ping 192.168.1.38, if it messages -

1. Reply from 192.168.1.38 byte-32 time-7ms $TTL = 255$ then it means connection is proper.

2. If message shown is "Request time out", then it means there is some break/issue in cable.

b) IPCONFIG -

This is used to config determine IPCONFIG of host. It gives TCP/IP configuration details like, IP address, subnet masks and default gateway of the computer.

IPCONFIG command is used for windows. IF CONFIG command is used in Linux.

eg: IPCONFIG : Detail.

c) NETSTAT -

This used to determine current state of active network connections on a host. When verifying the status of a listening part on a host or to check and see what remote hosts are connected to a level

local host on a specific port.

eg: Netstat ;

d) Traceroute -

It can be used to determine more specific information about the path to the destination host including the route the packet takes and the response time of these intermediate hosts.

It is useful for trouble-shooting large networks.

eg: tracert www.google.com ↵

1. 4ms 12 ms 5ms 10.131.81.1
2. * 120ms 194 ms 192.24.164.190
3. — — — —

Here, traceroute command is used in LINUX.