Computer Networks Lab (CS 3272)

Assignment – 1

Assigned date: 14-Jan-2022   Submission date: 21-Jan-2022

The aim of this assignment is to make you familiar with basic network commands and tools.

1. Read the man pages of `ifconfig, ping, traceroute, arp, dig, nslookup,` and `netstat` and write their utilities in brief.

2. Find the IP and hardware addresses of your machine using `ifconfig` command. (1+1=2)

3. Use `ping <AnyURL>` command and find out
    i.   the average RTT (round trip time).
    ii. the %packet loss.
    iii. size of packet that is sent to <AnyURL> server.
    iv. size of packet that is received by your machine.

4. Use `dig <AnyURL>` command and find out
    i.   the IP address of <AnyURL>.
    ii. the IP addresses of DNS servers.

5. Use `traceroute <AnyURL>` and find out
    i.   number of hops in between your machine and <AnyURL> server.
    ii. the IP address of your network gateway of your subnet.

6. Use `arp` command to find out the MAC address of the device that is performing as your network gateway.

7. Use `nslookup <AnyURL>` command and find out the IP address of <AnyURL>. Use `nslookup <IP address>` command and perform reverse domain lookup.

8. Use `netstat` command and find out the active connections of your machine.