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Aim:-
Study of various network commands used in Linux & Windows.

Basic networking commands:-

1) arp-a:-

Interface: 192.168.100.1 --- 0xd

Internet Address	Physical Address	Type
192.168.100.254	00-5a-5b-fc-56-76	dynamic
172.16.8.1	7c-5a-1c-cf-be-45	dynamic
224.0.0.2	01-00-5e-00-00-02	Static
239.255.255.250	01-00-5c-76-ff-fa	Static

2) Hostname:-
DESKTOP-HCVQANO

3) ipconfig /all:-
Windows IP configuration
Hostname..... DESKTOP-HCVQANO
Primary DNS Suffix
Node Type ..... Mixed
IP Routing Enabled.... : NO
WINS Proxy Enabled .... : NO

Ethernet adapter Ethernet:
Connection. specific DNS Suffix ... :
Description..... Real PKI a Gbe
DNS servers 172.16.8.1
NetBIOS over TCPIP ..... Enabled

4) nbstat -a :-

NBTSTAT [[-a Remote Name][-A · IP address]

[-c] [-n] [-r] [-R] [-RR] [-s]

[-S] [interval]

Remote name — Remote host machine name

IP address — Dotted decimal representation of IP address

interval — Redisplays selected statistics, pausing interval sec between each display.

5.) netstat:-

Active Connections

Proto	Local Add	foreign Add	State
			Established
TCP	172.16.8.85:7680	172.16.8.14:55142	
TCP	172.16.8.85:7690	HDC1617152:8881	TIME_WAIT
TCP	172.16.8.85:62716	123:http	Time_wait
TCP	172.16.8.85:62784	172.16.11.165 MS-ao	SYN-SENT

6) nslookup:-

nslookup www.google.com

Server : unknown

Address : 172.16.8.1

Non-authoritative answers.

Name : www.google.com

Address : 2404:6800:4007:81c::2004

142.250.183.228

7.) pathping:-

usage: pathping [-g host-list] [-h maximum_hops]
[-i address] [-n] [-p period]
[-q num_queries] [-w timeout]
[-4] [-6] target_name

8) ping:-

ping www.rajalakshmi.org

pinging www.rajalakshmi.org [14.99.10.232] with
32 bytes of data.

Reply from 14.99.10.232: bytes = 32 time <1ms
TTL = 127

Reply from 14.99.10.232: bytes = 32 time = 1ms
TTL = 127

ping statistics for 14.99.10.232:
Packets: sent = 4, Received = 4, lost = 0 (0% loss)

max = 0ms, max = 1ms, Avg = 0ms

9.) Route:-

Route [-f] [-p] [-4] [-6] command [destination]
[mask netmask] [gateway] [metric] [IF interface]

Command one of these:

PRINT	prints a route
ADD	Adds a route
DELETE	Deletes a route
CHANGE	modifies an existing route.

Linux Commands:-

1) arp -a

gateway (172.16.8.1) at 7c:7a:1c:cf:be:45 [ether] on enp2s0

2) Hostname:-

localhost.localdomain

3) ipconfig:-

enp2s0: flag=4163<up, BROADCAST, RUNNING, MULTICAST> mtu 1500

lo: flags=73<up, LOOPBACK, RUNNING> mtu 65536

wlp3s0: flags=4099<UP, BROADCAST, MULTICAST> mtu 1500

4) nslookup -A <ip address>

nslookup -A 14.99.10.232

Looking up status of 14.99.10.232

workGroup <00> - <GROUP> R <ACTIVE>

DESKTOP-BQ499VC <00> - B <ACTIVE>

MAC Address = 50-9A-4C-34-D3-13

5) nslookup www.google.com:-

Server: 172.16.8.1

Address: 172.16.8.1#53

Non-authorised answer

Name: www.google.com

Address: 142.250.183.228

Observation:-

1) Which command is used to find the reachability of a host machine from your device?

ping <hostname or IP address>

2) Which command will be given the details of hops taken by a packet to reach its destination?

traceroute <destination>

3) Which Commands display the ip configuration of your machine.

ipconfig

4) Which command display the TCP port status in your machine?

netstat -an.

5) Write the modify ipconfiguration in a linux machine.

addr add <interface_name>

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Result:-

Thus the study of various network commands used in linux & windows was done succesfully.