****Unix/Linux Commands:****

**1 . ifconfig or ip a**: Displays information about network interfaces, IP addresses, and network configurations.

1. **ping <hostname/IP>**: Tests network connectivity to a remote host.
2. **traceroute** or **tracepath**: Traces the route that packets take to reach a destination.
3. **netstat** or **ss**: Displays network statistics and open network connections.

route or ip r: Shows and manipulates the IP routing table.

1. **nslookup** or **dig** or **host**: Queries DNS servers to look up hostnames and
2. zIP addresses.

**6.hostname**: Displays or sets the system's hostname.

**7.arp** or **ip n**: Shows and manipulates the ARP (Address Resolution Protocol) table.

**8.nmap** or **nc** (Netcat): Used for network scanning and port scanning, or as a network debugging tool.

**9.ssh** or **telnet**: Secure Shell or Telnet client for remote access to other

machines.

**10.scp** or **rsync**: Used for secure file transfer between machines over SSH.

**11.tcpdump** or **wireshark**: Packet capture tools for network analysis and troubleshooting.

**12.ifup** and **ifdown**: Used to enable or disable network interfaces.

**13.iptables** or **ufw**: Tools for configuring firewall rules on Linux.

**14.ethtool**: Provides information and statistics about Ethernet interfaces.

**15.sshd** or **ssh-keygen**: Manage SSH server and key pairs for secure access.

**16.curl** or **wget**: Command-line tools to download files from the web.

**17.lsof**: Lists open files and the processes that opened them, useful for network debugging.

**18.route** or **ip route**: Manages network routing tables.

**19.iftop**: Displays bandwidth usage on an interface in real-time.

****Windows Commands:****

**20.ipconfig** or **ifconfig**: Displays network configuration information.

**21.ping**: Tests network connectivity to a remote host.

**22.tracert** or **pathping**: Traces the route to a remote host with additional diagnostic information.

**23.netstat**: Displays active network connections and statistics.

**24.route**: Manages the IP routing table.

**25.nslookup**: Queries DNS servers for hostnames and IP addresses.

**26.hostname**: Displays or sets the system's hostname.

1. **arp**: Manages the ARP table.
2. **telnet**: Remote access to other machines (though it's less secure).
3. **ssh**: If you have an SSH client installed on Windows.
4. **scp** or **pscp**: Securely copy files between Windows and Unix/Linux systems.
5. **ftp**: Transfers files to and from FTP servers.
6. **firewall.cpl** or **wf.msc**: Opens the Windows Firewall settings.
7. **ipfw**: Windows Firewall (Advanced Security) command line utility.
8. **wireshark**: Network packet capture and analysis tool for Windows.
9. **nmap**: Network scanning tool for Windows.
10. **netsh**: Network shell for network configuration.
11. **route**: Manages routing tables.
12. **iproute2**: Allows for advanced IP configuration.
13. **telnetd**: If you want to enable Telnet server on Windows.