ASSIGNMENT 1: write the network terminologies with example?

1. **IP Address**: An Internet Protocol address is a unique identifier assigned to each device connected to a network. Example: 192.168.1.
2. **MAC Address**: Media Access Control address is a unique identifier assigned to network interfaces for communications at the data link layer of a network segment. Example: 00-B0-D0-63-C2-47.
3. **Router**: A networking device that forwards data packets between computer networks. Example: Cisco.
4. **Switch**: A networking device that connects devices together on a local area network (LAN) and uses packet switching to forward data to its destination. Example: KVM switch.
5. **Firewall**: A security device or software that monitors and controls incoming and outgoing network traffic based on predetermined security rules. Example: Check Point Firewall.
6. **DNS (Domain Name System)**: A hierarchical decentralized naming system for computers, services, or other resources connected to the Internet or a private network. Example: www.Wipro.com translates to IP address.
7. **Subnet**: A portion of a network that shares a common address component. Example: 192.168.1.0/24.
8. **LAN (Local Area Network)**: A network that connects computers and devices in a limited geographical area such as a home, office, or building. Example: Office network connecting computers.
9. **WAN (Wide Area Network)**: A network that spans a large geographical area, typically consisting of multiple LANs or other networks. Example: Internet.
10. **VPN (Virtual Private Network)**: A secure encrypted connection established over a public network, typically to enable remote users to securely connect to a private network. Example: Using a VPN to access company resources from home.
11. **SSID (Service Set Identifier)**: A unique identifier attached to the header of packets sent over a wireless local area network (WLAN). Example: "MyHomeWifi".
12. **Bandwidth**: The maximum data transfer rate of a network or internet connection, usually measured in bits per second (bps). Example: 75 Mbps.
13. **Gateway**: A node on a network that serves as an access point to another network or the Internet. Example: A router connecting a local network to the Internet.