1.What is SOHO network?
Ans. SOHO network is a lan network that use for small or individual work.

2.What is NAT?
Ans. Network address translation private ip address into public IP address.

3.What is PAT?
Ans. Public address translation public IP address into private ip address.

4.Different between NAT & PAT?
Ans. NAT(network address translation) is not convert multiple devices private ip address into public ip address in single ip address.
PAT (Port Address Translation) is a type of NAT where multiple devices share a single public IP address but use different ports.

5.What is Acl?
Ans. An ACL (Access Control List) is access a resource on a network.
For example, an ACL can allow or block specific IP addresses, users, or devices from accessing certain parts of a network.

6.What are different types of Acl? What is wildcard mask?
Ans. Two types of Acl
    a.standard Acl
    b.extended Acl
A wildcard mask is a special kind of mask used in networking to control which parts of an IP address are checked and which parts are ignored. It helps network devices know which range of IP addresses to focus on.

7.Explain circuit switch?
Ans. Circuit switching is a way of connecting two devices for communication by creating a dedicated, direct path (or circuit) between them for the duration of their conversation. This method is often used in traditional telephone networks.
Here's how it works
a.Connection Setup: When you make a call, the network sets up a dedicated path between you and the person you're calling.
b.Constant Connection: The entire path is reserved just for you, so the connection remains open and dedicated to your call.
c.Tear Down: When the call ends, the path is disconnected and released for others to use.

8.What is difference between leased line and broadband?
Ans. Leased Line: A private internet connection just for one business. It has steady, equal speeds for upload and download, doesn't slow down, and is more reliable, but it costs more.
Broadband: A shared internet connection for homes. Download is faster than upload, and speed can slow down if many people are using it. It's cheaper and good for everyday use.

9.Difference between a POTS line and leased line?
Ans. POTS (Plain Old Telephone Service): A basic landline phone connection used for voice calls. It's slower and only handles voice data, not internet.

Leased Line: A high-speed, private internet connection mainly for businesses. It can handle data, voice, and video, with steady, reliable speeds.

10.Practice on printing sharing?
Ans.yes

11.Use of IIS?
Ans. IIS (Internet Information Services) is a web server software from Microsoft. Its main use is to host and manage websites and web applications on Windows servers.
With IIS, you can:
Host websites so people can access them on the internet.
Run web apps for users.
Manage settings like security, user access, and performance.

12.Create FTP server?
Ans. A. Go to Control Panel: Open Control Panel, then go to Programs and Features > Turn Windows features on or off.
B.Enable FTP Server: In the Windows features window, find Internet Information Services (IIS), expand it, then expand FTP Server, and check both FTP Server and FTP Extensibility. Click OK to install.
C.Open IIS Manager: After installation, open IIS Manager by typing “IIS” in the Windows search bar and selecting Internet Information Services (IIS) Manager.
D.Create a New FTP Site:
In IIS Manager, right-click on Sites, select Add FTP Site.
Name the site and choose a folder where you want to store FTP files.
Set up IP address and port (usually port 21 for FTP).
Select No SSL for a simple setup (or use SSL for secure connections).
E.Set Authentication and Permissions:
Choose Basic for authentication and allow Anonymous if you want open access, or Specific Users for restricted access.
Set permissions like Read or Read/Write based on how users will use the FTP server.
F.Test the FTP Server: Use an FTP client.

13.What is the difference between cloud and virtulization?
Ans. Cloud: A service that delivers resources (like storage, apps, and servers) over the internet. You pay for what you use, and it’s managed by a third party. Great for accessing resources anytime, anywhere.
Virtualization: A technology that creates multiple virtual environments on one physical machine, dividing resources to run several “virtual machines” on one server. It’s mostly used within data centers for better resource management.

14.Why are network monitoring tools used?
Ans. Network monitoring tools are used to track and manage network performance. They help detect issues (like slowdowns or outages), ensure security, and keep everything running smoothly by monitoring traffic, devices, and connections in real time.

15.What is ping?

Ans. Ping is a network tool used to test if a device is reachable on a network. It sends a small data packet to the target device and measures the time it takes to get a response, showing if the device is online and how fast the connection is.

16.What is traceroute?
Ans.Traceroute is a tool that shows the path data takes to travel from your computer to another device or server on a network. It lists all the stops (called "hops") the data passes through, along with the time taken at each stop.

17.What is nslookup?
Ans. Nslookup is a tool used to find the IP address of a website or domain name.

18.Explain core switches?
Ans. A core switch is a high-capacity network switch that sits at the center of a network, handling large amounts of data quickly. It connects different parts of the network, ensuring fast and reliable data flow across the entire network, especially in big organizations.

19.What is network management?
Ans. Network management is the process of monitoring, controlling, and maintaining a network to keep it running smoothly. It includes tasks like checking for issues, managing devices, ensuring security, and optimizing performance.

20.What are event viewer?
Ans. Event Viewer is a tool in Windows that shows logs of important events on your computer, like errors, warnings, or security alerts. It helps you check system activity, troubleshoot problems, and monitor the health of your computer.

21.Practice parental control or family option in control panel what are network vulnerabilities?
Ans. Yes.

22.What are the types of network security attacks?
Ans. a.Phishing: Fake emails or sites to steal info.
b.Malware: Harmful software like viruses.
c.DDoS: Overloading a site to crash it.
d.Man-in-the-Middle: Intercepting data to steal.
e.SQL Injection: Hacking databases for data.
f.Brute Force: Guessing passwords to break in.