What is the difference between Internet and Intranet?

Internet is a public network and Intranet is private network.

Internet is used globally and intranet is used within a group or within office.

We can browse anything in internet and Intranet is inter connected network in a company.

What is IP Address?

IP address is a unique address that identifies a device on the internet or a local network.

Ip Classes & Ranges:

Class A – 1.0.0.0 To 126.255.255.255

Class B- 128.0.0.0 To 191.255.255.255

Class C- 192.0.0.0 To 223.255.255.255

ClassD-224.0.0.0To239.255.255.255

ClassE-240.0.0.0To254.255.255.255 127

Series is a loop back IP.

What is APIPA IP?

169 Series IP Address is called as APIPA IP. When DHCP Server is not available, Windows will assign Temporary IP Address.

What Is Active Directory?

Active Directory is a centralized database. It is managed by admin and group policy, domain, Domain controller, Additional domain controller etc are part of Active Directory. We can manage users and we can even reset the password in Active Directory.

What is DNS?

DNS Means Domain Name System, It converts IP to Name and Name to IP, because computer cant understand human language.

Port Number of DNS is 53.

What Is Forward and Reverse Lookup In DNS?

IP to Name is Reverse Lookup & Name to IP is Forward lookup.

What is DHCP?

DHCP means Dynamic Host Configuration Protocol. It is used to give IP address to computers.

Port Number is 67 & 68. Client will use 68 and server will use 67.

What is Static and Dynamic IP?

Static IP is permanent IP Address and it is given by Admin.

Dynamic IP is temporary IP and it is given by DHCP.

What is DORA process?

Discover, Offer, Request and Acknowledge.

First Client will discover the server for IP Address

Server will Offer the client, Set of IP Addresses

Client will request the server for IP Address Server

will acknowledge.

What is Ipconfig command?

Ipconfig command is used to find IP Address of computers.

If we type ipconfig/all, we will get IP address, Subnet Mask, Default gateway, IPV6 address and MAC Address of Computer.

What is Domain?

Domain is a set of computers which network recognized by the internet. It can be used by centrally administer computers. It is created when you install active directory.

       (OR)

Domain means group of computers connected to one Network. It is a part of Active directory and we can manage Domain from Active Directory.

       (OR)

Domain means a logical group of Network objects (Computers, Users, Devices) that share the same Active Directory database.

What is Workgroup?

Workgroup means Standalone PC. (Example – Personal Laptops/Desktops)

What is the difference between Domain and Workgroup?

Workgroup – Workgroup means standalone PC, within a workgroup, no single machine or computer will have control over other machine.

Domain - User can login in any system using his ID and password.

In Domain, Security is high and Domain is controlled by Administrator from Active Directory.

How to Add Computer into Domain?

Go to Start – Control Panel – System and Security – Click on System – Click on Change – Click on Click here to Add into Domain – Give Domain ID, Password, Computer Name and Click Ok. System is added into Domain.

    (OR)

Go to Start – Right Click properties – Click here to add into Domain - Give Domain ID, Password, Computer Name and Click Ok. System is added into Domain.

      (OR)

Go to Start – Click on Settings – Click on System – Click on About – Click on Domain – Click on Change - Give Domain ID, Password, Computer Name and Click Ok. System is added into Domain.

What is Trust Relationship Error and How will you resolve?

Trust relationship error means Domain is not trusting the PC.

We need to remove from Domain and Re-add the PC into Domain.

What is Operating system?

Operating system acts as an interpreter between computer application and hardware. It works as an user interface.

Types of Operating system are Client Operating system and Server Operating system.

Example of Client OS: Windows 7, Windows 8.1, Windows 10, Windows 11.

Example of Server OS: Windows Server 2016, Windows Server 2022, Etc.

If system is running slow, What all troubleshooting steps you will perform?

Delete the temporary files, Delete Cache Memory, Delete unwanted files and Empty the recycle Bin, Perform C-Disk Cleanup.

Even though it is running slow, Go to Task Manager (Ctrl+Shift+Esc) and see which application is taking more usage.

If user don't wants that application, Delete it.

If user wants that application, force stop the application and restart the PC.

We can suggest for upgrade of RAM, if user usage is more.

What is VPN and what is the use of VPN?

VPN means Virtual Private Network. It is used to connect to office network, when we are working from home. (Example - VPN – Cisco Any Connect/ Torguard /Twingate, etc)

(OR)

Virtual Private Network will create a secure connection between a computing device and a computer network, or between two networks.

What is Group Policy?

Group policy provides the streamline access to all the users in the network, it can be used to define the users security and networking policies. By group policy, you can keep control over certain function like not allowing the users to shut down the system or using the control panel or running the command. Group policy is applicable on active directory Command to update Group policy is gpupdate.

What is the difference between Permission, Rights and policy?

"Policy" is assigned on active directory, like site, domain and OU. The "Rights" are assign to users and groups, whereas, the "Permission" is assigned for network resources like file, folders and printers.

What is Default Gateway?

Routers IP Address is called as Default Gateway.

What is Switch?

Switch is used to create a Network and it will pass the data to computers. Switch works on only 1 network.

What is difference between switch and Router?

Switch works on only one network and multiple switches are connected to one Router.

Router wors on multiple networks and it will pass data to Switches.

What is BSOD?

BSOD stands for Blue Screen Of Death. It will occour due to dust on RAM or loose contact of Hardware components, OS corrupt, Drivers issues, etc.

There will be a code displayed on the system, according to the code we will identoy and resolve the issue. There are more than 100's of codes, we cant remember all the codes, so I type that in google and check and resolve.

(Example of Error Code – 0x000000F8 RAM Problem, remove Ram, clean it, and insert it in another slot)

How do you add a Local Printer?

Install the printer drivers from Website. Connect USB Cable to the computer or a laptop.

Click on Start – Control Panel – Hardware and Sound - Device and Printer – Add Printer – Choose the printer which you want to Add and Click OK.

How do you add a Network Printer?

Click on Start – Control Panel – Hardware and Sound - Device and Printer – Add Printer – Choose TCP/IP – Enter IP Address of the Computer – Click Ok.

How do you install Windows 10 Operating System?

English -   https://youtu.be/GFqkLljkTZA

Telugu - https://youtu.be/PLez5VyIeQc

How to troubleshoot Printer

Unplug and restart the printer. Sometimes power cycling the printer can resolve the issue. ...

Check cables or wireless connection. ...

Uninstall and reinstall the printer. ...

Install the latest driver for the printer. ...

Clear and reset the print spooler. ...

Change a printer's status to "online"

how to troubleshoot hardware issues

1 Check the basics. Before you dive into more advanced troubleshooting, you should check the basics first. ...

2 Run diagnostic tools. One of the easiest ways to troubleshoot hardware issues is to use diagnostic tools. ...

3 Update your drivers. ...

4 Clean your system. ...

5 Upgrade your hardware. ...

6 Here's what else to consider.

Software troubleshooting: Techniques and tips

1. Consulting other users.

2. Testing in safe mode.

3. Scanning for malware.

4. Updating drivers.

5. Closing apps one at a time.

6. Defragmenting your hard drive.

What is the scope and super scope?

The scope consists of an IP address like gateway IP, subnet mask, DNS server IP. It can be used to communicate with the other PCs in the network. The superscope becomes when you combine two or more scopes together.

What is 'A' record and what is 'MX record'?

'A' record is also known as host record, and it can map the IP address by name. It is with this record that DNS can find out the IP address of a name. While, 'MX record' also known as mail exchanger record, by the help of 'MX' record, location of the mail server is identified. The record is also found in DNS.

What would you use to connect two computers without using switches?

Cross cables are used to connect two computers without using switches

Explain about RAS server?

A remote access server (RAS) is a device that allows users to connect to a local area network (LAN) from a remote location.

What is the difference between RAS and VPN server?

RAS is truly a local area connection between two connections whereas, VPN is a local connection spread over a large area.

What is a Ping command?

Between two or more devices, to check the physical IP connectivity Ping command is used.

What do DC and ADC stand for?

DC stands for the **D**omain **C**ontroller, and ADC stands for **A**dditional **D**omain **C**ontroller. ADC is a backup of the domain controller. The domain controller is a server that checks the security measures like user id, password.

What is the difference between DC (Domain controller) and ADC (Additional DomainController)?

There is one difference between the domain controller and additional domain controller, on DC all five operational roles are available while in ADC only three operational role is available.

How can you take a backup of emails in MS Outlook?

To take a back-up in the ms outlook, you have to go in the control panel. In the control panel, you have to go under mail option and then open the data file, select personal folder and click on open folder. After that, you have to copy .pst and have to paste it wherever you want the backup.

Physical Layer: This layer defines the physical characteristics of the network, such as the type of cable, voltage levels, and data transmission rates.

OSI MODEL

Data Link Layer: This layer is responsible for the reliable transmission of data across a physical link.

Network Layer: This layer handles the routing of data packets between different networks.

Transport Layer: This layer provides reliable end-to-end data delivery between applications running on different hosts.

Session Layer: This layer establishes, maintains, and terminates communication sessions between applications.

Presentation Layer: This layer formats data for presentation to the application layer.

Application Layer: This layer provides services to the user or application, such as email, file transfer, and remote login.

What is "Bootloader"?

A bootloader is a piece of software that runs when a computing system starts up, and it's responsible for a number of tasks

- Loading the operating system
- Providing an interface
- Performing basic initialization

What is NTLDR

- An outdated BIOS
- A missing or damaged boot file, such as ntldr, ntdetect.com, or boot.ini
- A misconfigured boot.ini file
- A corrupt partition boot sector

What is Office 365

Microsoft 365 is a cloud-based subscription service that includes productivity apps, cloud storage, and security services

Components of 365

- Office applications: Includes Word, Excel, PowerPoint, OneNote, and Outlook
- Cloud storage: OneDrive provides 1 TB of cloud storage
- Collaboration tools: Teams is a collaboration tool
- Email: Outlook provides business-class email with a 50 GB mailbox per use

Difference between DNS IP address and gateway IP address.

The main difference between a DNS address and an IP address is that a DNS address translates a domain name into an IP address, while an IP address is assigned to a computer or server