**MCSE**

**Ques-:1.** What is Operating System?

**Ans :-** Operating System works as an interpreter between computer

hardware and application. Operating System works as a user

interface.

**Ques-:2.** Types of Operating System?

**Ans :-** There are two types of Operating System—

1. **SOS** – Simple Operating System as for example – Windows 95, 98,

ME

2. **NOS** – Network Operating System as for example – Windows NT,

2000, 2003

**Ques-:3.** What is Server?

**Ans :-** Servers are computer that provides the services. As for Example –

1. DNS Server

2. WINS Server

3. DHCP Server

4. RAS Server

5. VPN Server

**Ques-:4.** What is RAS Server?

**Ans :-** RAS stands for Remote Access Server. It is basically use for

mobile user in the network. This Server provides the remote

access connectivity for mobile user. In this way all of the mobile

users are connected to server through telephone line. This Server

also provides the connectivity between two or more Offices in the

Network.

**Ques-:5.** What is VPN Server?

**Ans :-** VPN stands for Virtual Private Network. It is basically use for

mobile user in the network. This Server provides the remote

access connectivity for mobile user. In this way all of the mobile

users are connected to server through internet. This Server also

provides the connectivity between two or more Offices in the

Network. VPN is Cost Effective (No costly).

**Ques-:6.** What is IAS Server?

**Ans :-** IAS stands for Internet Authentication Services. IAS Server is also

known as RADIUS Server. IAS Server Provides the centralized

management of multiple RAS & VPN Servers in the Network. On

this Server Remote Access Policy and Remote Access Logging

Options are available.

**Ques-:7.** FAT/NTFS?

**Ans :-** There is major differences are available between FAT and NTFS

File System such as

**FAT**

· Fat stands for File Allocation Table

· There are two categories in Fat File System

o Fat 16

o Fat 32

· In Fat Not Up To Folder Level Security is available

· Compression Option is not available

· Encryption Option is not available

· Disk Quota Option is not Available

· FAT Supported By All Of The Microsoft Based Operating System

**NTFS**

· NTFS stands for NT File System

· There are three categories in NTFS file System

o NTFS 4.0 – NT O/S

o NTFS 5.0 – 2000 O/S

o NTFS 6.0 – 2003O/S

· In NTFS Up-to File Level Security is available

· Compression Option is available

· Encryption Option is available

· Disk Quota Option is Available

· NTFS Supported By only Limited Microsoft Based Operating System

**Ques-:8.** What is the difference between Windows NT/2000/2003?

**Ans :-** There are many differences are available between Windows NT,

2000 and 2003 O/S, Such As--

**NT**

§ There is no active directory

§ There is no tree/forest hierarchical structure are available

§ There is no Site Relationship

§ There is no parent domain and child domain concepts are

available in the network.

§ NT support NTFS 4.0 File system

§ NT Support NTLM Version 2 Lan Authentication Protocol

§ In NT by default no Trust Relationship are configured

§ In NT we will use System Policy

§ In NT specific Client Site Operating System is available i.e. NT

Workstation 4.0 Edition

§ In NT we will use Exchange 5.5 Server

§ In NT We Can Create Only One Way Trust Relationship inside

The Network.

**2000**

§ There is Active Directory

§ Tree/Forest Hierarchal Structure are available

§ There is Site Relationship is available

§ There is parent domain and child domain concept are available

§ 2000 support NTFS 5.0 File system

§ 2000 Support Kerberos Version 5 Authentication Protocol

§ In 2000 by default Two-Way Trust Relationship are configured

§ In 2000 we will use Group Policy

§ 2000 support maximum 32 Processor and 64 GB RAM

§ In 2000 specific Client Site Operating System is available i.e. 2000

Professional

§ In 2000 we will use Exchange 2000 Server

§ In 2000 no Stub Zone is available in DNS

§ In 2000 Resultant Setup Policy is not available

§ In 2000 GPMC is not available

§ In 2000 Conditional Forwarding option is not available

§ In 2000 Effective Permission option is not available

§ In 2000 Only some Administrative Command Line Tools are available

§ Active Directory Saved Query Option is not available

§ Shadow Copy Option is not available in Windows 2000 O/S

§ ASR Option is not available in Windows 2000 O/S

§ In Windows 2000 We Can Create Maximum 1 DFS Root On A Single

DFS Server in The Network.

§ In 2000 We Can Create Two Way Trust Relationship inside The

Network.

**2003**

§ There is Active Directory

§ Tree Forest Hierarchal Structure are available

§ There is Site Relationship is available

§ There is parent domain and child domain concept are available

§ 2003 support NTFS 6.0 File system

§ 2003 Support Kerberos Version 5 Authentication Protocol

§ In 2003 by default Two-Way Trust Relationship are configured

§ In 2003 we will use Group Policy

§ 2003 support maximum 64 Processor and 64GB RAM

§ In 2003 no specific Client Site Operating System is available you can

use either win 2k Professional either Win XP Professional in the

Network.

§ In 2003 we will use Exchange 2003 Server

§ In 2003 Stub Zone is available in DNS

§ In 2003 Resultant Setup Policy is available

§ In 2003 GPMC is available

§ In 2003 Conditional Forwarding option is available

§ In 2003 Effective Permission option is available

§ In 2003 more Administrative Command Line Tools are available

§ Active Directory Saved Query Option is available

§ Shadow Copy Option is available in Windows 2003 O/S

§ ASR Option is available in Windows 2003 O/S

§ In Windows 2003 We Can Create More Than 1 DFS Root On A

Single DFS Server in The Network.

§ In 2003 We Can Create Two Way Trust Relationship inside The

Network.

**Ques-:9.** What is Active Directory?

**Ans :-** Active Directory is the main concept of Windows 2000/2003

Network. It stores all of the information about the whole network

such as users, printers, computers etc.

**Ques-:10.** What is Tree?

**Ans :-** A group of domain is called tree and sharing a contiguous Name

space.

**Ques-:11.** What is Forest?

**Ans :-** A group of tree is called forest and does not sharing a contiguous

name space but sharing a common configuration (Schema).

**Ques-:12.** Difference between D.C. and A.D.C.?

**Ans :-** D.C. stands for Domain Controller and A.D.C. stands for

Additional Domain Controller. A.D.C. is a back up copy of D.C.

Only one different is available Between D.C. and A.D.C. i.e. -

Operation Master Role. On D.C all of the three Operation Master

Roles are available—

1. RID Master

2. PDC Emulator

3. Infrastructure Operation Master Role

But on A.D.C only three operation master roles are available

**Ques-:13.** What is the benefit of Child Domain?

**Ans :-** There are many benefits of Child Domain Such As—

0. Security Boundary

1. Administrative Overhead Low

2. Network Traffic Low

**Ques-:14.** What is Group?

**Ans :-** Group is a collection of user account. It provides the simplified

administration in the network.

**Ques-:15.** What is OU?

**Ans :-** OU stands for Organizational Unit. On OU we define group policy

in the network. Group policy is basically assigned on active

directory container i.e. Site, domain, OU. When ever we want

some users in the network do not use shut down the system, do not

use run command, do not use control panel, then we put that user

in the OU and assign the appropriate Group Policy on that OU.

**Ques-:16.** What is Group Policy?

**Ans :-** Group policy provides the stream line access to all of the users in

the network. Group policy is basically assigned on active directory

container i.e. Site, domain, OU. When ever we want some users

in the network do not use shut down the system, do not use run

command, do not use control panel, then we put that user in the

OU and assign the appropriate Group Policy on That OU.

**Ques-:17.** Difference between Permission, Right and Policy?

**Ans :- Permission** – Permission are basically assigned on network

resources as for example – File, Folder, Share Folder, Printer

**Right** – Right is basically assign to users and groups.

**Policy** – Policy are basically assigned on active directory container

i.e. - Site, Domain, OU.

**Ques-:18.** What is ISA Server?

**Ans :-** ISA stands for Internet Security Acceleration. ISA Server

Provides the Internet connectivity for all of the users in network

ISA server also works as a Proxy Server in the network. With the

help of ISA Server Administrator can Filtering a Client request

For a Specific Web site in the Network.

**Ques-:19.** What is Default Gateway?

**Ans :-** Default Gateway is the IP Address of Router in the network.

When ever any clients want to go to another network that query

will forward to Default Gateway.

**Ques-:20.** What is Site?

**Ans :-** A Site is a geographical area where all of the domains are

available. Site manages the Replication Traffic between Two or

More Different Sites in the Network.

**Ques-:21.** What is Operation Master Role?

**Ans :-** Operation Master Role is available on Domain controller in the

Network. There are Five types of Operation Master Role –

1. Schema Master

2. Domain Naming Master

3. RID Master

4. PDC Emulator

5. Infrastructure Operation Master Role

**Ques-:22.** Difference between Mixed Mode and Native Mode?

**Ans :-** There are three types of domain mode—

1. **Mixed Mode** – In this mode NT, win 2k and win 2k3 D.C are

available.

2. **Win 2k Native Modes** – In this mode Win 2k And win 2k3 D.C are

available.

3. **Win 2k3 Native Mode** – In this mode only win 2k3 D.C are

available.

**Ques-:23.** What is SCSI?

**Ans :-** SCSI stands for Small Computer System Interface. In SCSI the

rate of data transmission is fast. SCSI Hard Disk Speed—R.P.M is

fast In SCSI Data Transmission Speed Is 320 MBPS in the

Network. In SCSI Controller We Can connect Maximum 15

physical Devices in the System.

**Ques-:24.** What are A-Host Record and PTR Record?

**Ans :-** A record is also called host record. This record is basically created

in forward lookup Zone.

PTR record is also called pointer record. This record is basically

created in reverse lookup Zone.

**Ques-:25.** What is Reservation?

**Ans :-** Reservation Is Basically used In DHCP Server. When Ever we

want This Computer Is Always received This IP address From

DHCP Server in The network, in That Case we create a

Reservation in DHCP Server Of that particular Computer in The

Network.

**Ques-:26.** IP Address Range/Classes?

**Ans :-** There are two types of IP address—

1. Class Full IP Address

2. Class Less IP Address

Class Full IP Address – There are five classes –

1. Class A – 0 – 126 (127 is reserved for Loop back)

2. Class B – 128 – 191

3. Class C – 192 – 223

4. Class D – 224 – 239

5. Class E – 240 – 255

**Ques-:27.** Difference between Hardware Router and Software Router?

**Ans :- Hardware Router** – Hardware Router is a dedicated Router. It’s

having a lot of features such as security, dedicated routing in the

network. As for example Cisco Router.

**Software Router** – Software Router is not a dedicated Router. It

provides the different services also, such as DNS server, DHCP

Server. i.e.—Windows Based Router.

**Ques-:28.** Difference between Hardware Firewall and Software Firewall?

**Ans :- Hardware Firewall** – It is a dedicated Firewall. A lots of security

features are available on hardware based firewall. As for

example— Cisco pix Firewall.

**Software Firewall** – It is not a dedicated Firewall. Its provides the

normal security in the network—check point

**Ques-:29.** What is Domain Controller?

**Ans :-** D.C stands for domain controller. It provides the centralized

management of entire domain in the network. When ever we will

install active directory database on a server side operating system,

then after that system becomes a D.C. Domain Controller

manages all security related Interaction between users and

Computers in The Network.

**Ques-:30.** What is B Router?

**Ans :-** B Router stands for Bridge Router. We can say this is a layer three

bridge that provides the communication between two or more

different network ID.

**Ques-:31.** What is Bridge?

**Ans :-** Bridge is a layer 2 network device that provides the

communication within the same network id. In Bridge Maximum

16 ports are available.

**Ques-:32.** Difference between Gateway and Router?

**Ans :-** Router works on same network architecture but Gateway works on

different network architecture.

**Ques-:33.** What is POP Server/SMTP Server?

**Ans :-** POP stands for Post Office Protocol. It is basically use for mail

receiving purpose in the network.

SMTP stands for Simple Mail Transfer Protocol. It is basically use for

sending a mail as well as receiving a mail in the network.

**Ques-:34.** What is Active Directory Partitions?

**Ans :-** Active directory Partition Is a Logical Partition Of active

directory. This Partition Is Basically Use for replication from D.C

To A.D.C & D.C to G.C.S (Global Catalog server) in the

Network. There are three Types Of active Directory partition—

1. Schema partition

2. Configuration Partition

3. Domain Partition

**Ques-:35.** Types of Active Directory Partitions?

**Ans :-** There are three types of Active Directory partition –

1. Schema Partition

2. Configuration Partition

3. Domain Partition

**Ques-:36.** What is the Function of Ping Command?

**Ans :-** Ping provides to check the Physical/IP Connectivity between two

or more devices in the network. Ping sends an ICMP request from

source computer to destination computer and destination computer

sends an ICMP reply.

**Ques-:37.** What are Broadcasting, Multicasting and unicasting?

**Ans :-** Broadcasting – One to All

Multicasting – One to many not all

Unicasting – One to One

**Ques-:38.** What is Group Nesting?

**Ans :-** When we add two or more Groups within a Single Group, it is

called Group Nesting.

**Ques-:39.** What is FIXMBR?

**Ans :-** FIXMBR Repair the Master boot Record of the Partition Boot

Sector.

**Ques-:40.** What is FIXBOOT?

**Ans :-** FIXBOOT write a new Partition Boot Sector on to the system

Partition.

**Ques-:41.** What is SID?

**Ans :-** SID stands for Security Identifier. Every Object has a unique ID, it

is called SID.

**Ques-:42.** What is RADIUS Serer?

**Ans :-** RADIUS Stands for Remote Authentication Dial-in User Service.

RADIUS Server Provides the Centralized management of

Multiple RAS & VPN Server in the Network. On this Server

Remote Access Policy and Remote Access Logging Options are

available.

**Ques-:43.** What is Trusting Domain?

**Ans :-** In Trusting Domain Resources are available.

**Ques-:44.** What is Trusted Domain?

**Ans :-** In Trusted Domain User Account’s are available.

**Ques-:45.** What is Microsoft Exchange Server?

**Ans :-** Microsoft Exchange Server is Software that provides the services

such as sending & receiving the Mail.

**Ques-:46.** What is Printer?

**Ans :-** Printer is a Software that Governing the Print Device. There are

two types of Printer—

1. Local Printer

2. Network Printer.

**Ques-:47.** What is Chatting?

**Ans :-** Chatting is a Real Time Conversion between Two or More

peoples in the Network.

**Ques-:48.** What Is Directory Services restore Mode?

**Ans :-** When our Active Directory Database is Not Working Properly,

Then We Restart the Domain Controller and Press f8 Key Then

after Selecting the Directory Services Restore Mode and Then

after Restoring the Active directory Database from the Last

Backup.

**Ques-:49.** What is normal backup?

**Ans :-** Just like a normal backup. By default backup.

**Ques-:50.** What is incremental backup?

**Ans :-** In incremental Backup only incremental parts are backup not full

backup.

**Ques-:51.** What is Differential backup?

**Ans :-** In differential backup, we take full backup after the normal

backup.

**Ques-:52.** What is packet?

**Ans :-** A packet is a logical grouping of information that includes a

header which contains location information and user data.

**Ques-:53.** What is forwarder?

**Ans :-** It is basically use in DNS Server. When client query to the DNS

Server, In that case if the DNS is having a best result then DNS

Server give the best result To The Client Computer In The

Network otherwise DNS Server forward the client query to the

root DNS server on own behalf and give the complete result To

The client computers in The Network

**Ques-:54.** What is encryption?

**Ans :-** There are four types of encryption—

1. No Encryption – no

2. Basic – MPPE – 40 bits – des

3. Strong – 56 bits – des – MPPE/IPSec

4. Strongest – 128 bit data encryption – MPPE/IPSec

**Ques-:55.** What is RIP v.1, RIP v.2, IGMP, OSPF?

**Ans :-**

1. RIP v.1 – Broadcast – Small Network Use

2. RIP v.2 – Multicast

3. IGMP – Multicast

4. OSPF – Multicast – For Larger Network

**Ques-:56.** What is the requirement Of VPN Server?

**Ans :-** VPN require IP connectivity between the client and the server.

VPN does not require a dial up connection Between the Client and

server in The Network.

**Ques-:57.** What is Inbound Connection?

**Ans :-** Inbound connection is Created On server Side.

**Ques-:58.** What is Outbound Connection?

**Ans :-** Outbound connection is created on client Side.

**Ques-:59.** What is The Function of jetpack command In DHCP Server?

**Ans :-** Check the database consistency of DHCP Server in the Network

**Ques-:60.** What is Remote Access Policy?

**Ans :-** In Remote Access Policy there are three options are available—

1. Condition – 8 a.m. to 5 p.m., Marketing Group

2. Permission – Yes/No

3. Profile – Connectivity time, IPSec Policy

**Ques-:61.** What is TRACERT?

**Ans :-** TRACERT display Complete route Information from source

computer to destination computer in the Network.

**Ques-:62.** What is the function of jetpack command in WINS server?

**Ans :-** For Compacting the WINS database, we use jetpack command.

Jetpack wins.mdb kk.mdb

**Ques-:63.** What is tunneling form?

**Ans :-** The sending and receiving of data through a secure way in the

network, it is called tunneling form.

**Ques-:64.** What is trust relationship?

**Ans :-** Trust relationship is an important part in the client server network.

There are two types of trust relationship—

1. **Non Transitive Trust** – Non Transitive Trust is a one way trust

relationship in the network. As for example—in NT network

2. **Transitive Trust** – Transitive Trust is two way trust relationship in

the network. As for example—in 2000/2003 network.

**Ques-:65.** What is DACL?

**Ans :-** DACL stand for Discretionary Access Control List. In DACL

basically permission entry is available of any user in the network

**Ques-:66.** What is SACL?

**Ans :-** SACL stand for System Access Control List. In SACL basically

auditing entry is available of any user in the network.

**Ques-:67.** What is MSI?

**Ans :-** This file is basically use for deploying or installation of any

application in the network.

**Ques-:68.** What is MST?

**Ans :-** This file is basically using for repairing of any application in the

network.

**Ques-:69.** What is zap file?

**Ans :-** It is basically use for that application, which do not have the MSI

file. We create a text file with zap extension for deploying or

installation purpose of any application in the network.

**Ques-:70.** What is ace?

**Ans :-** Ace stand for access control entry.

**Ques-:71.** What is operation master role?

**Ans :-** Operation master role is available on domain controller in the

network.

There are five types of operation master role inside the active

directory

1. **Schema Master** – Schema Master Is responsible for changes of

schema, updating of schema in the Network.

2. **Domain Naming Master** – Domain Naming Master Is Responsible

For adding or removing a domain inside the forest.

3. **RID Master** – RID Master provides RID no. of each D.C in the

Network. Every D.C is having a one id no, it is called RID NO.

domain—rid, object—S.I.D.

4. **PDC Emulator** – It is basically use For Previous version Of Windows

2000 Clients in The Network. PDC Emulator Work as an emulator for

previous version of Windows 2000 Clients in the network.

PDC – Primary Domain Controller

BDC – Backup Domain Controller

5. **Infrastructure Operation Master** – Infrastructure Operation Master

Role provides uniqueness of any object inside the forest.

Infrastructure operation master role. Updates references to objects and

group membership from other domain In the Network.

**Ques-:72.** What is dedicated server?

**Ans :-** A dedicated server functions as a server only not as a client. As

For Example—Domain Controller.

**Ques-:73.** What is bridgehead server?

**Ans :-** A bridgehead server is a central point in the site that is responsible

for replication from another site.

**Ques-:74.** What is the booting file Of Windows 2000/2003/xp O/s?

**Ans :-**

1. NTLDR

2. NTDETECT.COM

3. BOOT.INI

4. NTBOOTDD.SYS

5. NTOSKRNL.EXE

**Ques-:75.** What is clustering?

**Ans :-** Suppose, I create a web site—www.yahoo.com. This same web

page is available On All Of The ten computers. I configured

clustering on all of the ten computers. Let Say at a same time one

thousand people access this web site. If this web services are

provided by only one computer, then it may be a very busy. But in

this time workload is sharing among ten computers. This is called

clustering and If One Server Will Be down Another Server Are

providing The Services in The Network. There are Two Benefits

of Clustering—

1. Fault Tolerance

2. Load Balancing

**Ques-:76.** What is authoritative restore?

**Ans :-** In this process the one lacks version no high of each object in

active directory database and this parts is overrides on other D.C

in the network. We will use This Method in Following Options

Such As--- Some Deletions, Some rename

**Ques-:77.** What is migration?

**Ans :-** It is basically use for converting NT, 2000 network to 2003

network. There are two types of migration—

**1. Upgrading** – In upgrading Process maintains current domain

model. As for Example—Before Migration three domains are

available and after Migration again three domains are

Available.

**2. Restructuring** – In restructuring Process no maintain current

domain models. As for example- Before Migration three

domains are available and after Migration May Be one

domain will be Available.

**Ques-:78.** What Is Schema?

**Ans :-** Schema basically reads The Attributes and defines The Classes.

Such As User class, Printer Class, Computer Class.

**Ques-:79.** What is Stub Zone?

**Ans :-** STUB Zone is a pointer Record of Sub Child domain in the

network. STUB Zone provides the directly communication

Between Parent domain and Sub child domain. If any case middle

level DNS Will Down in That case Parent and Sub Child Domain

are still communicating with each other in the network

**Ques-:80.** What Is Shadow Copy?

**Ans :-** Shadow Copy provides the automatic Backup Of any particular

shared Folder in The Network. Shadow copy provides the No. of

previous version Backup of Any particular Shared folder in the

Network. In any time we can View and restore Of Any Previous

Version Backup Of that particular Folder. This Is the New features

of windows 2003 Operating System.

**Ques-:81.** What Is RSOP?

**Ans :-** RSOP stands for Resultant Set of Policy. It is basically use for,

when ever we Want, What ever the effective policy Is apply On a

particular User and particular computer in The Network

**Ques-:82.** What Is Group Policy Modeling?

**Ans :-** In Group policy Modeling, We Can find out what Ever the

effective policy Is Apply On a particular User and particular

computer in The Network

**Ques-:83.** What Is Group Policy Resulting?

**Ans :-** In Group policy resulting, we can find Out What ever the effective

policy Is Apply On a particular User and particular computer in

The Network

**Ques-:84.** What Is SUS Server?

**Ans :-** SUS stands for software Update server. This server provides the

Automatic Updating from Microsoft Update Server to All of The

Clients and servers in the network

**Ques-:85.** What Is Windows update?

**Ans :-** Windows Update Services Provides the automatic updating From

Microsoft Windows update Server to all of the Clients & servers

in The Network

**Ques-:86.** What Is GPMC?

**Ans :-** GPMC stands For Group policy Management Console. With The

Help Of this Tools We Manage the Group policy Object Of entire

Forest from single Location in The Network. With The Help of

This Too we also take The Backup and restoring Of Group policy

object.

**Ques-:87.** What Is Conditional Forwarding?

**Ans :-** Conditional Forwarding Is Basically use in DNS server. In DNS

Server, We define The Condition, If Any DNS Query Is Related to

That Particular Domain, In That Case That Query Will Directly

Forward to That Domain and If That DNS Query Is Not Related to

That Particular Domain In That Case That Query Will Forward to

ISP DNS server In the Network. With The Help of Conditional

Forwarding, we can say the rate Of Data Transmission Rate Is

Fast in The Network This Is the New Features in Windows 2003

Operating System.

**Ques-:88.** What Is Effective Permission?

**Ans :-** Effective Permission display that is what ever the effective

permission is available of any User in Any particular resources in

the Network.

**Ques-:89.** What Is the Booting file Of 98 Operating system?

**Ans :-**

1. MSDOS.SYS

1. IO.SYS

2. COMMAND.COM

**Ques-:90.** What Is ASR?

**Ans :-** ASR stands for automatic system recovery. ASR provides the

complete backup of any Computers in The Network.

**Ques-:91.** What Is the Difference Between system policy And Group

policies?

**Ans :-** System Policy are Used in NT environment But Group policy Are

Used in Windows 2000 And Windows 2003 Environment.

**Ques-:92.** What is Connection Oriented protocol?

**Ans :-** Before the Data is Sending from Source Computer to destination

Computer in the Network first of All connection is establish

between source to destination Computer. It Is Called connection

Oriented Protocol. As For Example—TCP.

**Ques-:93.** What Is IDE?

**Ans :-** IDE Stands For Integrated device electronics. In IDE We Can

Connect Maximum 4 physical devices in The System. In IDE the

Rate of Data transmission is slow. In IDE Maximum Speed is –80

MBPS in the Network.

**Ques-:94.** Why we Create a Site?

**Ans :-** There are many benefits for creating a Site inside the Network

Such as:

1. Manage Replication Traffic inside the Network

2. For Group policy Purpose

3. Administrative Burden will be Low

4. Network Traffic will be Low

5. Network Performance will be Good

6. Logon Traffic

7. Reduce The No. Of request For Global Catalog Server

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file System

o NTFS 4.0 – NT O/S

o NTFS 5.0 – 2000 O/S

o NTFS 6.0 – 2003O/S

· In NTFS Up-to File Level Security is available

· Compression Option is available

· Encryption Option is available

· Disk Quota Option is Available

· NTFS Supported By only Limited Microsoft Based Operating System

**Ques-:8.** What is the difference between Windows NT/2000/2003?

**Ans :-** There are many differences are available between Windows NT,

2000 and 2003 O/S, Such As--

**NT**

§ There is no active directory

§ There is no tree/forest hierarchical structure are available

§ There is no Site Relationship

§ There is no parent domain and child domain concepts are

available in the network.

§ NT support NTFS 4.0 File system

§ NT Support NTLM Version 2 Lan Authentication Protocol

§ In NT by default no Trust Relationship are configured

§ In NT we will use System Policy

§ In NT specific Client Site Operating System is available i.e. NT

Workstation 4.0 Edition

§ In NT we will use Exchange 5.5 Server

§ In NT We Can Create Only One Way Trust Relationship inside

The Network.

**2000**

§ There is Active Directory

§ Tree/Forest Hierarchal Structure are available

§ There is Site Relationship is available

§ There is parent domain and child domain concept are available2000

support NTFS 5.0 File system

§ 2000 Support Kerberos Version 5 Authentication Protocol

§ In 2000 by default Two-Way Trust Relationship are configured

§ In 2000 we will use Group Policy

§ 2000 support maximum 32 Processor and 64 GB RAM

§ In 2000 specific Client Site Operating System is available i.e. 2000

Professional

§ In 2000 we will use Exchange 2000 Server

§ In 2000 no Stub Zone is available in DNS

§ In 2000 Resultant Setup Policy is not available

§ In 2000 GPMC is not available

§ In 2000 Conditional Forwarding option is not available

§ In 2000 Effective Permission option is not available

§ In 2000 Only some Administrative Command Line Tools are available

§ Active Directory Saved Query Option is not available

§ Shadow Copy Option is not available in Windows 2000 O/S

§ ASR Option is not available in Windows 2000 O/S

§ In Windows 2000 We Can Create Maximum 1 DFS Root On A Single

DFS Server in The Network.

§ In 2000 We Can Create Two Way Trust Relationship inside The

Network.

**2003**

§ There is Active Directory

§ Tree Forest Hierarchal Structure are available

§ There is Site Relationship is available

§ There is parent domain and child domain concept are available

§ 2003 support NTFS 6.0 File system

§ 2003 Support Kerberos Version 5 Authentication Protocol

§ In 2003 by default Two-Way Trust Relationship are configured

§ In 2003 we will use Group Policy

§ 2003 support maximum 64 Processor and 64GB RAM

§ In 2003 no specific Client Site Operating System is available you can

use either win 2k Professional either Win XP Professional in the

Network.

§ In 2003 we will use Exchange 2003 ServerIn 2003 Stub Zone is

available in DNS

§ In 2003 Resultant Setup Policy is available

§ In 2003 GPMC is available

§ In 2003 Conditional Forwarding option is available

§ In 2003 Effective Permission option is available

§ In 2003 more Administrative Command Line Tools are available

§ Active Directory Saved Query Option is available

§ Shadow Copy Option is available in Windows 2003 O/S

§ ASR Option is available in Windows 2003 O/S

§ In Windows 2003 We Can Create More Than 1 DFS Root On A

Single DFS Server in The Network.

§ In 2003 We Can Create Two Way Trust Relationship inside The

Network.

**Ques-:9.** What is Active Directory?

**Ans :-** Active Directory is the main concept of Windows 2000/2003

Network. It stores all of the information about the whole network

such as users, printers, computers etc.

**Ques-:10.** What is Tree?

**Ans :-** A group of domain is called tree and sharing a contiguous Name

space.

**Ques-:11.** What is Forest?

**Ans :-** A group of tree is called forest and does not sharing a contiguous

name space but sharing a common configuration (Schema).

**Ques-:12.** Difference between D.C. and A.D.C.?

1. D.C. stands for Domain Controller and A.D.C. stands for Additional

Domain Controller. A.D.C. is a back up copy of D.C. Only one

different is available Between D.C. and A.D.C. i.e. - Operation Master

Role. On D.C all of the three Operation Master Roles are available—

RID Master

2. PDC Emulator

3. Infrastructure Operation Master Role

But on A.D.C only three operation master roles are available

**Ques-:13.** What is the benefit of Child Domain?

**Ans :-** There are many benefits of Child Domain Such As—

0. Security Boundary

1. Administrative Overhead Low

2. Network Traffic Low

**Ques-:14.** What is Group?

**Ans :-** Group is a collection of user account. It provides the simplified

administration in the network.

**Ques-:15.** What is OU?

**Ans :-** OU stands for Organizational Unit. On OU we define group policy

in the network. Group policy is basically assigned on active

directory container i.e. Site, domain, OU. When ever we want

some users in the network do not use shut down the system, do not

use run command, do not use control panel, then we put that user

in the OU and assign the appropriate Group Policy on that OU.

**Ques-:16.** What is Group Policy?

**Ans :-** Group policy provides the stream line access to all of the users in

the network. Group policy is basically assigned on active directory

container i.e. Site, domain, OU. When ever we want some users

in the network do not use shut down the system, do not use run

command, do not use control panel, then we put that user in the

OU and assign the appropriate Group Policy on That OU.

**Ques-:17.** Difference between Permission, Right and Policy?

**Ans :- Permission** – Permission are basically assigned on network

resources as for example – File, Folder, Share Folder, Printer

**Right** – Right is basically assign to users and groups.

**Policy** – Policy are basically assigned on active directory container

i.e. - Site, Domain, OU.

**Ques-:18.** What is ISA Server?

**Ans :-** ISA stands for Internet Security Acceleration. ISA Server

Provides the Internet connectivity for all of the users in network

ISA server also works as a Proxy Server in the network. With the

help of ISA Server Administrator can Filtering a Client request

For a Specific Web site in the Network.

**Ques-:19.** What is Default Gateway?

**Ans :-** Default Gateway is the IP Address of Router in the network.

When ever any clients want to go to another network that query

will forward to Default Gateway.

**Ques-:20.** What is Site?

**Ans :-** A Site is a geographical area where all of the domains are

available. Site manages the Replication Traffic between Two or

More Different Sites in the Network.

**Ques-:21.** What is Operation Master Role?

**Ans :-** Operation Master Role is available on Domain controller in the

Network. There are Five types of Operation Master Role –

1. Schema Master

2. Domain Naming Master

3. RID MasterPDC Emulator

4. Infrastructure Operation Master Role

**Ques-:22.** Difference between Mixed Mode and Native Mode?

**Ans :-** There are three types of domain mode—

1. **Mixed Mode** – In this mode NT, win 2k and win 2k3 D.C are

available.

2. **Win 2k Native Modes** – In this mode Win 2k And win 2k3 D.C are

available.

3. **Win 2k3 Native Mode** – In this mode only win 2k3 D.C are

available.

**Ques-:23.** What is SCSI?

**Ans :-** SCSI stands for Small Computer System Interface. In SCSI the

rate of data transmission is fast. SCSI Hard Disk Speed—R.P.M is

fast In SCSI Data Transmission Speed Is 320 MBPS in the

Network. In SCSI Controller We Can connect Maximum 15

physical Devices in the System.

**Ques-:24.** What are A-Host Record and PTR Record?

**Ans :-** A record is also called host record. This record is basically created

in forward lookup Zone.

PTR record is also called pointer record. This record is basically

created in reverse lookup Zone.

**Ques-:25.** What is Reservation?

**Ans :-** Reservation Is Basically used In DHCP Server. When Ever we

want This Computer Is Always received This IP address

FromDHCP Server in The network, in That Case we create a

Reservation in DHCP Server Of that particular Computer in The

Network.

**Ques-:26.** IP Address Range/Classes?

**Ans :-** There are two types of IP address—

1. Class Full IP Address

2. Class Less IP Address

Class Full IP Address – There are five classes –

1. Class A – 0 – 126 (127 is reserved for Loop back)

2. Class B – 128 – 191

3. Class C – 192 – 223

4. Class D – 224 – 239

5. Class E – 240 – 255

**Ques-:27.** Difference between Hardware Router and Software Router?

**Ans :- Hardware Router** – Hardware Router is a dedicated Router. It’s

having a lot of features such as security, dedicated routing in the

network. As for example Cisco Router.

**Software Router** – Software Router is not a dedicated Router. It

provides the different services also, such as DNS server, DHCP

Server. i.e.—Windows Based Router.

**Ques-:28.** Difference between Hardware Firewall and Software Firewall?

**Ans :- Hardware Firewall** – It is a dedicated Firewall. A lots of security

features are available on hardware based firewall. As for

example— Cisco pix Firewall.

**Software Firewall** – It is not a dedicated Firewall. Its provides the normal

security in the network—check point

**Ques-:29.** What is Domain Controller?

**Ans :-** D.C stands for domain controller. It provides the centralized

management of entire domain in the network. When ever we will

install active directory database on a server side operating system,

then after that system becomes a D.C. Domain Controller

manages all security related Interaction between users and

Computers in The Network.

**Ques-:30.** What is B Router?

**Ans :-** B Router stands for Bridge Router. We can say this is a layer three

bridge that provides the communication between two or more

different network ID.

**Ques-:31.** What is Bridge?

**Ans :-** Bridge is a layer 2 network device that provides the

communication within the same network id. In Bridge Maximum

16 ports are available.

**Ques-:32.** Difference between Gateway and Router?

**Ans :-** Router works on same network architecture but Gateway works on

different network architecture.

**Ques-:33.** What is POP Server/SMTP Server?

**Ans :-** POP stands for Post Office Protocol. It is basically use for mail

receiving purpose in the network.

SMTP stands for Simple Mail Transfer Protocol. It is basically use for

sending a mail as well as receiving a mail in the network.

**Ques-:34.** What is Active Directory Partitions?

**Ans :-** Active directory Partition Is a Logical Partition Of active

directory. This Partition Is Basically Use for replication from D.C

To A.D.C & D.C to G.C.S (Global Catalog server) in the

Network. There are three Types Of active Directory partition—

1. Schema partition

2. Configuration Partition

3. Domain Partition

**Ques-:35.** Types of Active Directory Partitions?

**Ans :-** There are three types of Active Directory partition –

1. Schema Partition

2. Configuration Partition

3. Domain Partition

**Ques-:36.** What is the Function of Ping Command?

**Ans :-** Ping provides to check the Physical/IP Connectivity between two

or more devices in the network. Ping sends an ICMP request from

source computer to destination computer and destination computer

sends an ICMP reply.

**Ques-:37.** What are Broadcasting, Multicasting and unicasting?

**Ans :-** Broadcasting – One to All

Multicasting – One to many not all

Unicasting – One to One

**Ques-:38.** What is Group Nesting?

**Ans :-** When we add two or more Groups within a Single Group, it is

called Group Nesting.

**Ques-:39.** What is FIXMBR?

**Ans :-** FIXMBR Repair the Master boot Record of the Partition Boot

Sector.

**Ques-:40.** What is FIXBOOT?

**Ans :-** FIXBOOT write a new Partition Boot Sector on to the system

Partition.

**Ques-:41.** What is SID?

**Ans :-** SID stands for Security Identifier. Every Object has a unique ID, it

is called SID.

**Ques-:42.** What is RADIUS Serer?

**Ans :-** RADIUS Stands for Remote Authentication Dial-in User Service.

RADIUS Server Provides the Centralized management of

Multiple RAS & VPN Server in the Network. On this Server

Remote Access Policy and Remote Access Logging Options are

available.

**Ques-:43.** What is Trusting Domain?

**Ans :-** In Trusting Domain Resources are available.

**Ques-:44.** What is Trusted Domain?

**Ans :-** In Trusted Domain User Account’s are available.

**Ques-:45.** What is Microsoft Exchange Server?

**Ans :-** Microsoft Exchange Server is Software that provides the services

such as sending & receiving the Mail.

**Ques-:46.** What is Printer?

**Ans :-** Printer is a Software that Governing the Print Device. There are

two types of Printer—

1. Local Printer

2. Network Printer.

**Ques-:47.** What is Chatting?

**Ans :-** Chatting is a Real Time Conversion between Two or More

peoples in the Network.

**Ques-:48.** What Is Directory Services restore Mode?

**Ans :-** When our Active Directory Database is Not Working Properly,

Then We Restart the Domain Controller and Press f8 Key Then

after Selecting the Directory Services Restore Mode and Then

after Restoring the Active directory Database from the Last

Backup.

**Ques-:49.** What is normal backup?

**Ans :-** Just like a normal backup. By default backup.

**Ques-:50.** What is incremental backup?

**Ans :-** In incremental Backup only incremental parts are backup not full

backup.

**Ques-:51.** What is Differential backup?

**Ans :-** In differential backup, we take full backup after the normal

backup.

**Ques-:52.** What is packet?

**Ans :-** A packet is a logical grouping of information that includes a

header which contains location information and user data.

**Ques-:53.** What is forwarder?

**Ans :-** It is basically use in DNS Server. When client query to the DNS

Server, In that case if the DNS is having a best result then DNS

Server give the best result To The Client Computer In The

Network otherwise DNS Server forward the client query to the

root DNS server on own behalf and give the complete result To

The client computers in The Network

**Ques-:54.** What is encryption?

**Ans :-** There are four types of encryption—

1. No Encryption – no

2. Basic – MPPE – 40 bits – des

3. Strong – 56 bits – des – MPPE/IPSec

4. Strongest – 128 bit data encryption – MPPE/IPSec

**Ques-:55.** What is RIP v.1, RIP v.2, IGMP, OSPF?

**Ans :-**

1. RIP v.1 – Broadcast – Small Network Use

2. RIP v.2 – Multicast

3. IGMP – Multicast

4. OSPF – Multicast – For Larger Network

**Ques-:56.** What is the requirement Of VPN Server?

**Ans :-** VPN require IP connectivity between the client and the server.

VPN does not require a dial up connection Between the Client and

server in The Network.

**Ques-:57.** What is Inbound Connection?

**Ans :-** Inbound connection is Created On server Side.

**Ques-:58.** What is Outbound Connection?

**Ans :-** Outbound connection is created on client Side.

**Ques-:59.** What is The Function of jetpack command In DHCP Server?

**Ans :-** Check the database consistency of DHCP Server in the Network

**Ques-:60.** What is Remote Access Policy?

**Ans :-** In Remote Access Policy there are three options are available—

1. Condition – 8 a.m. to 5 p.m., Marketing Group

2. Permission – Yes/No

3. Profile – Connectivity time, IPSec Policy

**Ques-:61.** What is TRACERT?

**Ans :-** TRACERT display Complete route Information from source

computer to destination computer in the Network.

**Ques-:62.** What is the function of jetpack command in WINS server?

**Ans :-** For Compacting the WINS database, we use jetpack command.

Jetpack wins.mdb kk.mdb

**Ques-:63.** What is tunneling form?

**Ans :-** The sending and receiving of data through a secure way in the

network, it is called tunneling form.

**Ques-:64.** What is trust relationship?

**Ans :-** Trust relationship is an important part in the client server network.

There are two types of trust relationship—

1. **Non Transitive Trust** – Non Transitive Trust is a one way trust

relationship in the network. As for example—in NT network

2. **Transitive Trust** – Transitive Trust is two way trust relationship in

the network. As for example—in 2000/2003 network.

**Ques-:65.** What is DACL?

**Ans :-** DACL stand for Discretionary Access Control List. In DACL

basically permission entry is available of any user in the network

**Ques-:66.** What is SACL?

**Ans :-** SACL stand for System Access Control List. In SACL basically

auditing entry is available of any user in the network.

**Ques-:67.** What is MSI?

**Ans :-** This file is basically use for deploying or installation of any

application in the network.

**Ques-:68.** What is MST?

**Ans :-** This file is basically using for repairing of any application in the

network.

**Ques-:69.** What is zap file?

**Ans :-** It is basically use for that application, which do not have the MSI

file. We create a text file with zap extension for deploying or

installation purpose of any application in the network.

**Ques-:70.** What is ace?

**Ans :-** Ace stand for access control entry.

**Ques-:71.** What is operation master role?

**Ans :-** Operation master role is available on domain controller in the

network.

There are five types of operation master role inside the active

directory

1. **Schema Master** – Schema Master Is responsible for changes of

schema, updating of schema in the Network.

2. **Domain Naming Master** – Domain Naming Master Is Responsible

For adding or removing a domain inside the forest.

3. **RID Master** – RID Master provides RID no. of each D.C in the

Network. Every D.C is having a one id no, it is called RID NO.

domain—rid, object—S.I.D.

4. **PDC Emulator** – It is basically use For Previous version Of Windows

2000 Clients in The Network. PDC Emulator Work as an emulator for

previous version of Windows 2000 Clients in the network.

PDC – Primary Domain Controller

BDC – Backup Domain Controller

5. **Infrastructure Operation Master** – Infrastructure Operation Master

Role provides uniqueness of any object inside the forest.

Infrastructure operation master role. Updates references to objects and

group membership from other domain In the Network.

**Ques-:72.** What is dedicated server?

**Ans :-** A dedicated server functions as a server only not as a client. As

For Example—Domain Controller.

**Ques-:73.** What is bridgehead server?

**Ans :-** A bridgehead server is a central point in the site that is responsible

for replication from another site.

**Ques-:74.** What is the booting file Of Windows 2000/2003/xp O/s?

**Ans :-**

1. NTLDR

2. NTDETECT.COM

3. BOOT.INI

4. NTBOOTDD.SYS

5. NTOSKRNL.EXE

**Ques-:75.** What is clustering?

**Ans :-** Suppose, I create a web site—www.yahoo.com. This same web

page is available On All Of The ten computers. I configured

clustering on all of the ten computers. Let Say at a same time one

thousand people access this web site. If this web services are

provided by only one computer, then it may be a very busy. But in

this time workload is sharing among ten computers. This is called

clustering and If One Server Will Be down Another Server Are

providing The Services in The Network. There are Two Benefits

of Clustering—

1. Fault Tolerance

2. Load Balancing

**Ques-:76.** What is authoritative restore?

**Ans :-** In this process the one lacks version no high of each object in

active directory database and this parts is overrides on other D.C

in the network. We will use This Method in Following Options

Such As--- Some Deletions, Some rename

**Ques-:77.** What is migration?

**Ans :-** It is basically use for converting NT, 2000 network to 2003

network. There are two types of migration—

**1. Upgrading** – In upgrading Process maintains current domain

model. As for Example—Before Migration three domains are

available and after Migration again three domains are

Available.

**2. Restructuring** – In restructuring Process no maintain current

domain models. As for example- Before Migration three

domains are available and after Migration May Be one

domain will be Available.

**Ques-:78.** What Is Schema?

**Ans :-** Schema basically reads The Attributes and defines The Classes.

Such As User class, Printer Class, Computer Class.

**Ques-:79.** What is Stub Zone?

**Ans :-** STUB Zone is a pointer Record of Sub Child domain in the

network. STUB Zone provides the directly communication

Between Parent domain and Sub child domain. If any case middle

level DNS Will Down in That case Parent and Sub Child Domain

are still communicating with each other in the network

**Ques-:80.** What Is Shadow Copy?

**Ans :-** Shadow Copy provides the automatic Backup Of any particular

shared Folder in The Network. Shadow copy provides the No. of

previous version Backup of Any particular Shared folder in the

Network. In any time we can View and restore Of Any Previous

Version Backup Of that particular Folder. This Is the New features

of windows 2003 Operating System.

**Ques-:81.** What Is RSOP?

**Ans :-** RSOP stands for Resultant Set of Policy. It is basically use for,

when ever we Want, What ever the effective policy Is apply On a

particular User and particular computer in The Network

**Ques-:82.** What Is Group Policy Modeling?

**Ans :-** In Group policy Modeling, We Can find out what Ever the

effective policy Is Apply On a particular User and particular

computer in The Network

**Ques-:83.** What Is Group Policy Resulting?

**Ans :-** In Group policy resulting, we can find Out What ever the effective

policy Is Apply On a particular User and particular computer in

The Network

**Ques-:84.** What Is SUS Server?

**Ans :-** SUS stands for software Update server. This server provides the

Automatic Updating from Microsoft Update Server to All of The

Clients and servers in the network

**Ques-:85.** What Is Windows update?

**Ans :-** Windows Update Services Provides the automatic updating From

Microsoft Windows update Server to all of the Clients & servers

in The Network

**Ques-:86.** What Is GPMC?

**Ans :-** GPMC stands For Group policy Management Console. With The

Help Of this Tools We Manage the Group policy Object Of entire

Forest from single Location in The Network. With The Help of

This Too we also take The Backup and restoring Of Group policy

object.

**Ques-:87.** What Is Conditional Forwarding?

**Ans :-** Conditional Forwarding Is Basically use in DNS server. In DNS

Server, We define The Condition, If Any DNS Query Is Related to

That Particular Domain, In That Case That Query Will Directly

Forward to That Domain and If That DNS Query Is Not Related to

That Particular Domain In That Case That Query Will Forward to

ISP DNS server In the Network. With The Help of Conditional

Forwarding, we can say the rate Of Data Transmission Rate Is

Fast in The Network This Is the New Features in Windows 2003

Operating System.

**Ques-:88.** What Is Effective Permission?

**Ans :-** Effective Permission display that is what ever the effective

permission is available of any User in Any particular resources in

the Network.

**Ques-:89.** What Is the Booting file Of 98 Operating system?

**Ans :-**

1. MSDOS.SYS

1. IO.SYS

COMMAND.COM

**Ques-:90.** What Is ASR?

**Ans :-** ASR stands for automatic system recovery. ASR provides the

complete backup of any Computers in The Network.

**Ques-:91.** What Is the Difference Between system policy And Group

policies?

**Ans :-** System Policy are Used in NT environment But Group policy Are

Used in Windows 2000 And Windows 2003 Environment.

**Ques-:92.** What is Connection Oriented protocol?

**Ans :-** Before the Data is Sending from Source Computer to destination

Computer in the Network first of All connection is establish

between source to destination Computer. It Is Called connection

Oriented Protocol. As For Example—TCP.

**Ques-:93.** What Is IDE?

**Ans :-** IDE Stands For Integrated device electronics. In IDE We Can

Connect Maximum 4 physical devices in The System. In IDE the

Rate of Data transmission is slow. In IDE Maximum Speed is –80

MBPS in the Network.

**Ques-:94.** Why we Create a Site?

**Ans :-** There are many benefits for creating a Site inside the Network

Such as:

1. Manage Replication Traffic inside the Network

2. For Group policy Purpose

3. Administrative Burden will be Low

4. Network Traffic will be Low

5. Network Performance will be Good

6. Logon Traffic

Reduce The No. Of request For Global Catalog Server

**Ques-:95.** Difference between IP V-4 and IP V-6?

**Ans :-** There is major difference between IP V.4 and IP V.6 such as –

1. In IP V.4 is a 32 bits IP Address but IP v.6 128 bits IP Address.

2. IP v.4 is a Decimal Format, but IP V.6 is Hexa-Decimal

Number.

3. IP V.4 has 4 Octets, but IP V.6 has 16 Octets.

4. IP V.4 is supported by Operating System, but IP V.6 is

supported by only some Operating System.

5. In IP V.4 only limited number of IP Address are available, but

in IP V.6 a number of IP Addresses are available.

**Ques-:96.** What Is the Function of Schema partition?

**Ans :-** Schema Partition is responsible for Replication to all of the

Domains inside the Forest.

**Ques-:97.** What Is The Function of Configuration Partition?

**Ans :-** Configuration Partition is responsible for Replication to all of the

Domains inside the Forest.

**Ques-:98.** What is the function of Domain Partition?

**Ans :-** Domain Partition is responsible for Replication to all of the

Additional Domain Controller inside the own Domain.

**Ques-:99.** What is Active Directory Database Location?

**Ans :-** Systemroot\NTDS Folder\NTDS.DIT

**Network:**-A group of computers that is connected by cable or other

devices to share their data, information and devices with each other is called

Network. There are two types of Network:

............

**The using software is free version, you can upgrade it to the**

**upgrade version.http://www.allimagetool.com**

**1. Peer-to-Peer:**-Peer-to-Peer network is also called Workgroup. In

Workgroup there is no dedicated server. All Computers are equal,

Every Computers Works Both as a Client and a Server. In Workgroup

all users account such as user name and password Are Available in the

SAM database. SAM Stands for Security Account Management

Database.

**2. Client Server:**-Client Server network is also called Domain. In

Domain there is one dedicated server; That Server Is Called D.C. D.C

Stands for Domain Controller. In Client Server Network All users

account such as user name and password are Available in the Active

Directory database. Domain is a security boundary in the Network.

there Are Many Benefits of Domain, Such As—

**A.** Single logon

**B.** Single User Account

**C.** Centralized Management

There are three scopes of Network:

**1. LAN:**-LAN stands for Local Area Network. In a fixed area all of the

computers are connected to each other, it is called LAN. In LAN we

do not use any third party Service Provider Network such as

Telephone Line, Internet and Satellite.

**2. WAN:**-WAN stands for Wide Area Network. Across the world all of

the computers are connected to each other, it is called WAN. In WAN

we use Third Party Service Provider Network such as Telephone Line,

Internet and Satellite.

**3. MAN:**-Man stands for Metropolitan Area Network. MAN is a child of

WAN because in a metropolitan city all of the computers are

connected to each other, it is called MAN. In MAN we use Third

Party Service provider Network such as Telephone Line, Internet and

Satellite.

(**Example:**-Suppose I have a company that name is ABC Pvt. Ltd.

held in Delhi which has four branch offices First is South Delhi,

Second is East Delhi, Third is North Delhi and Fourth is West Delhi.

All the branch offices are connected to the main office with the help

of Third Party Service Provider Network such as Telephone Line,

Internet and Satellite, it is called MAN.)

**NIC:**-NIC stands for Network Interface Card...

**PXE:**-PXE stands for Pre Execution Boot Environment. It is generally use

in RIS.

**PXE and Non-PXE:**-Boot roam is available on PXE Card. Boot roam is not

available in Non-PXE Card.

**Cable:**-Cable is a medium that creates a Network and carry the signals

between computers in the Network. There are two types of cable:

**2. Twisted Pair Cable:**-Twisted Pair Cable is also called 10Base T.

There are four pair in this cable White - Green, White - Blue, White -

Brown, White - Orange. There are two types of Twisted Pair Cable:

A. **UTP:**-UTP stands for Unshielded Twister Pair. There are no

mass shielded on the wire.

B. **STP:**-STP stands for Shielded Twisted Pair. There are a

mass shielded on wires.

**3. Coaxial Cable:**-Coaxial Cable just like as a normal TV cable. In

coaxial cable one is copper wire that is located in the central location

of the cable then after a plastic coating then after shielded with mass

and then after upper coating (Black Coating). There are two types of

coaxial cable.

A. **Thin Net Coaxial Cable:**-Thin Net Coaxial Cable is also

called as 10Base 2. 10 stand for 10 MBPS and 2 stands for

up to 200 meters.

B. **Thick Net Coaxial Cable:**-Thick Net Coaxial Cable is also

called as 10Base 5. 10 stand for 10MBPS and 5 stands for

up to 500 meters.

**4. Fiber Optic Cable:**-In Fiber Optic Cable the data are sending in

digital form not in analog form. The rate of data transmission is fast

by using this cable.

**There are two types of device in the network—**

1. DTE Device--- D.T.E Stands for Data Terminal Equipment. As

for example—P.C, ROUTER

2. DCE Device---D.C.E Stands For Data Communication

Equipment. As for Example—HUB, SWITCH, MODEM

**Straight Cable:**-When we connect Two Different Devices, Such as DTE to

DCE Device in that cases we will use straight cable as for example

Computer to Hub, Computer to Switch.

**Cross Cable:**-When we connect two similar devices, Such as DTE to DTE,

DCE to DCE in that case we will use cross cable as for example Computer

to Computer, Hub to Hub.

**Topology:**-Topology is the way of connecting the computers. Topology

requires two or more computers. There are five types of Topology.

**1. Bus-Topology:**-In this Topology all of the computers are connected to

a single Wire Such As--coaxial cable. In Bus-Topology if the cable is

break from any where then the all network is down. In Bus-Topology

the network speed is divided among the computers. In this topology

we use BNC connector. BNC stand For Barrel Net Connector.

**2. Star Topology:**-In this Topology all of the computers are connected

to a central device such as Hub, or Switch. In star Topology if one

computer Will failed in that case my network will be still working

properly. In this topology we normally use UTP cable and RJ-45

connecter. RJ stands for registered jack.

**3. Ring Topology:**-In this Topology all of the computers are connected

to own next computer and the last computer is connected to first

computer. In this topology if one computer will fails then my whole

network are down. (Cable Used-? Speed - ?).

**4. Mesh Topology:**-In this Topology all of the computers are connected

to each other computer in the network by a separate cable and

Separate NIC card. It is also called complete Topology.

**5. Hybrid Topology:**-When we will connect two or more same

Topology To a single different Topology, it is called Hybrid

Topology. There are two types of Hybrid Topology:

A. **Star wired Bus**

B. **Star wired Ring**

**Technology:**-The rate of data transmission depends on your Network

Technologies. There are many types of Network Technologies Are Available

in the World---

**1. Ethernet:**-Ethernet is a popular LAN Technology that uses

CSMA/CD.

**2. ATM:**-ATM stands for Asynchronous Transfer Mode. ATM is a

packet switching network that sends fixed length packets over LAN or

WAN. The packet size is 53 bytes in which 48 bites data and 5 bytes

for address.

**3. Frame Relay:**-Frame Relay is a packet switching networks that sends

variable length packets over LAN or WAN.

**4. FDDI:**-FDDI stands for Fiber Distributed Data Interface. The rate of

data transmission is fast in this Technology. There are two types of

Ring in this Technology. First is Primary Ring and second is

Secondary Ring. Normally the data is sending from source computer

to destination computer through the Primary Ring if Primary Ring

Will Be fails then the data Will Be sending through the Secondary

Ring.

**Hub:**-Hub is a central device in the network that is used in star topology.

Hub does the broadcasting. The rate of data transmission is slow in the

network by using Hub.

**Switch:**-Switch is a central device in the network that is used in star

topology. Switch does the conditional broadcasting. The rate of data

transmission is fast in the network by using Switch.

**Router:**-Router is a device that provides the connectivity between two or

more different network id.

**Gateway:**-Gateway is a device that provides the connectivity between two

or more different network id. Gateway works on different network

architecture.

**Repeater:**-Repeater receives the signals and retransmits it to original

strength in the network.

**IP Address:**-IP Address is a unique identifier in the network from one

computer to anther computers. IP Address Is A Combination Of Network Id

+ Host Id.

**MAC Address:**-Each network adaptor are having a unique address, it is

called Physical Address or MAC Address. MAC stands for media access

control.

**Subnets:**-Network segments that connected to a router are called Subnets.

**Subnet Mask:**-The Subnet Mask is a screen that differentiates from

Network ID to Host ID in a IP Address.

**Network ID:**-The first part of the IP Address that defines the network is

called Network ID.

**Host ID:**-The second or last part of The IP Address that defines the Host

number is called Host ID.

**Sub Netting:**-A Big Network Is further divided Into Smaller-smaller

Network that is called sub netting. In sub netting we increase the Network

ID and decrease the Host ID by making some changes in subnet mask.

**Super Netting:**-Combining of Smaller-Smaller Network into big Network

That Is Called Super netting. In Super netting we increase the Host ID and

Decrease the Network ID by making some changes in subnet mask.

**Proxy Server:**-Proxy Server is a firewall component that enables us to

connect multiple computers in a network to the Internet by using a single

Public IP Address. By Proxy Server we can filter the client request for a

specific Web Site.

**NAT:**-The NAT is a device or service that translates Private IP Address to

Public IP Address in the Network NAT Provides the internet connectivity

for all Of the Internal User in the Network through Single Public IP address

And Single Line. There are three Types of NAT—

**1.** Static Nat

**2.** Dynamic Nat

**3.** Overloading Nat—PAT(Port address Translation)

**Firewall:**-A Firewall is the combination of hardware and software that

prevents unauthorized access to an internal network from outside.

**Microsoft Proxy Server:**-Microsoft Proxy Server provides both features

Such As Proxy Server and a Firewall.

**Protocol:**-Protocol is the set of rules and regulations that provides the

communication Between Two or More devices in the Network.

**Packet Switching:**-In Packet Switching all of the data are sending from

source computer to destination computer through may be a different way.

**Circuit Switching:**-In Circuit Switching all of the data are sending from

source computer to destination computer through a single way.

**Disk Quota:**-When we want some users in the network do not use more disk

space of the Hard Disk then we put a appropriate Disk Quota entry on those

users.

**Compression:**-By compression we add free of space in our Hard Disk.

**Terminator:**-Terminator absorbed the electric signal and stops the

reflection.

**Socket:**-A Socket is a combination of IP Address and TCP/UDP Port.

**Port:**-A Port is recognized by the service as for example FTP uses Port 21.

**OSI:**-OSI stands for Open System Interconnection model. It is a standard

model in the world. When ever One Computer Wants to communicate with

another Computer, A Major Task Is Performed inside the Computer and that

major Task are divided into Seven Parts and That Seven Parts Is Called

seven Layers.

**1. Application Layer:** - Application Layer Identify the which types Of

Application Are Using By The Client In The Network. As For

example—HTTP, FTP, SMTP, Telnet

**2. Presentation Layer:** - The format Of Data depends on the

presentation Layer. There Are Two Major Function Of Presentation

Layer—

A. Converting High Level Coding to Low Level Coding

B. Converting Low level Coding to high Level Coding

Generally there are Two Types Are Coding In this Layer—

1. ASCII-American Standard Code For Information Interchange code

2. EBCDIC—Extended Binary Coded For decimal interchange Code

Some additional Functions are presentation Layers is—

**1.** Compression

**2.** Decompression

**3.** Encryption

**4.** Decryption

**3. Session Layer:** - Session Layer Provides the which types Of Session

Are Establish between Sources to Destination Computer in the

Network. There Are three Types Of Data Transmission in the

Network—

A. **Simplex Transmission:**-Simplex Transmission is only one way

transmission as for example RADIO, T.V

**B. Half-Duplex:**-Half-Duplex is an only one way transmission at a

time. As for example—hub, walky talky

**C. Full-Duplex:**-Full-Duplex is a two way transmission at a same

time. As for example—switch, telephone, and wireless

Session Layer Provide Some Additional Function in the Network,

That Is—

1. Pause the Session

2. Terminate The Session

3. Restart The session

**4. Transport Layer:**-Transport Layer provides The End to End

Connectivity in The Network. Transport Layer is responsible to carry

the data from source to destination computer In the Network.

Transport Layer provides The Two types Of Connectivity in The

network—

Reliable Connectivity

Unreliable connectivity

Generally There Are Two types Of Protocol in Transport Layer

1. TCP-Transmission Control Protocol

2. UDP—User Datagram Protocol

TCP provides the reliable connectivity in the Network. & UDP

Provides the Unreliable connectivity in the network.

**5. Network Layer:**-Network Layer Provides the Source IP address and

destination IP address in the Network. There are Two Major Function

of network Layer—

1. Provides the Logical addressing—IP Addressing.

2. Provides the Routing

Router Is a Layer 3 device in the network

**6. Data Link Layer:**-Data Link Layer provides the Source Mac address

And destination Mac address in the Network. All of the Wan

Technology Is a Layer 2 technology. Switch and Bridge Is a Layer

2device in The Network.

**7. Physical Layer:**-Physical Layer Is Responsible For Put The Data on

the Cable. Hub, Repeater, Cable, NIC these are Layer -1 Device in

The Network.

**TCP:**-

1. TCP Stands for Transmission Control protocol

2. TCP is a Connection Oriented protocol

3. It Is a unicasting protocol

4. The Rate of Data transmission Is Slow in TCP

5. In TCP The Guarantee Of Data Delivery

6. In TCP Acknowledgement is must.

**UDP:-**

1. UDP Stands for User Datagram protocol.

2. It Is a Connection Less protocol

3. It Is a Broadcasting protocol

4. The Rate Of Data transmission is Fast

5. In UDP No Guarantee of Data Delivery

6. In UDP No Acknowledgement

**Data transmission Types:**-There are three types of data transmission in the

network--

**1. Simplex Transmission:**-Simplex Transmission is only one way

transmission as for example RADIO, T.V

**2. Half-Duplex:**-Half-Duplex is a one way transmission at a time. as for

example—hub, walky-talky

**3. Full-Duplex:**-Full-Duplex is a two way transmission at a same time.

as for example—switch, telephone, wireless

**ARP:**-ARP stands for Address Resolution Protocol. It is basically use for

resolving IP Address to MAC Address in the network.

**DOD model:-**

DOD Model Stands For department of defense model. This Model is also

known As TCP/IP Model. There are four Layers in DOD Model---

1. Application Layer—3 layer of OSI Model

2. Transport layer—transport layer of OSI Model

3. Internet layer—Network layer Of OSI Model

4. Network Interface Layer Or physical Layer—Data link & Physical

Layer of OSI Model.

**1.Application Layer:**-There are many types of protocols in Application

Layer:

A. **HTTP:**-HTTP stands for Hyper Text Transfer Protocol. It is

basically use for caring the web page. HTTP uses Port 80.

B. **FTP:**-FTP stands for File Transfer Protocol. It is basically

use for transferring the file. FTP uses Port 21.

**2. Transport Layer:**-There are two types of protocol in this layer:

A. **TCP:**- TCP stands for Transmission Control Protocol. It is a

connection oriented protocol. The rate of data transmission

is slow in this protocol. By this protocol the

acknowledgement is must.

B. **UDP:**- UDP stands for User Datagram Protocol. It is a

connection less protocol. The rate of data transmission is fast

by this protocol. The acknowledgement is not required.

**3. Internet Layer:**-There are normally four protocols on this layer:

A. **IP:**-IP stands for Internet Protocol. It is responsible for

assigning the IP Address.

B. **ICMP:**-ICMP stands for Internet Control Manage Protocol.

On the unsuccessful delivery it shows the error massage to

resend the data.

C. **IGMP:**-IGMP stands for Internet Group Management

Protocol. It is responsible for control Multicasting and

Broadcasting.

D. **ARP:**-ARP stands for Address Resolution Protocol. It is

basically used for resolving IP Address to MAC Address in

the network.

**Dual Booting:**-A Dual Boot configuration allows us to choose between two

or more operating system each time when we start the computer. In Dual

Booting one operating system is belongs to NOS family and another

operating system must be belongs to simple O/S family and the system

partition must be formatted with either Fat or Fat 32.

**File System:**-A logical division of the Hard Disk is called File System such

as sector or Tracks.

**Partition:**-A logical division of Hard Disk is called Partition.

**User Profile:**-A user profile contents the information about a specific user’s

log on setting Such As Desktop Setting. There are three types of user profile.

**1. Local User Profile:**-A local user profile is automatically created on

each computer to which the user log on.

**2. Roaming User Profile:**-The same profile can be used from anywhere

in the network from which the user log on. In This Profile User Can

Change His Own profile and that profile Will Be saved In Central

Location.

**3. Mandatory User Profile:**-A permanent profile will be used of any

user in the network from which the user log on. In this profile user can

change his own profile but that profile will not be saved in central

location. That change is only for temporary purpose.

**Offline:**-By offline user evenly access to a network share folder when he

disconnected from the network. There Are Three Types Of offline setting—

**1.** Manually Caching For document—by Default

**2.** automatic caching for document

**3.** automatic caching for program

**Recovery Console:**-When my system’s registry is damage and my operating

system is not starting properly in that case we will use Recovery Console. In

Recovery Console we use some command line tools such as enable, disable,

fixmbr, fixboot etc.

**Active Directory:**-Active Directory is the main concept of Windows 2000

& Windows 2003 Network. It stores the complete information about the

whole network such as users, printers, computers etc. Active Directory

provides The Centralized Management in the Network.

**Objects:**-Everything in Active Directory is called Object such as users,

Printers, computers etc.

**Attributes:**-Every object has some qualities that are called Attributes. On

the basis of these attributes we identify the object such as user, printer,

computer etc.

**Terminal Services:**-By Terminal Services we can manage our server from

anywhere in the network. There are two modes in Terminal Services:

**1. Remote Administration Mode:**-In this mode at a same time By

Default maximum two administrators can connect remotely to the

server and manage it.

**2. Application Server Mode:**-By this mode user allow to run remotely

one or more applications on the Server.

**Leased Line:**-Leased Line is a point to point connection. When we connect

24 hours a day to the Internet then we have a best option to choose the Lease

Line because it is cost effective(no Costly)

**ISDN Line:**-ISDN Line is not a point to point connection. ISDN networks

extend from the local telephone exchange to the remote user in the network.

By ISDN Line the rate of data transmission is fast. The data are sending in

digital form not in analog form. In ISDN scenario both side (client side and

server side) ISDN Modem is necessary.

**USB:**-USB stands for Universal Serial Bus. It is basically use for physically

connecting many devices At a Same Time that supports the USB such as

printer, mouse, scanner, web camera etc. It is compatible with near about

127 devices at the same time.

**Security Template:**-Security Template is a readymade designed by

Microsoft for implementing a security configuration in the network. There

are four types of Security Template Basic (By Default), Compatible (Low-

Level Security), Secure and High.

**Service Pack:**-Service Pack updates the DLL files and adds some additional

features in operating system.

**DLL:**-DLL stands for Dynamic Link Library. It is the important files of any

application, which helps to run any application.

**CRC:**-CRC stands for Cyclic Redundancy Check. CRC is a number

provided by a mathematically calculation on the packet at its source.

**Driver:**-Driver is software which helps to perform the Hardware properly.

**Multilink:**-Multilink connection uses multiple modems to create a single

connection to the Internet or other computers in the network.

**CSMA/CD:**-CSMA/CD stands for Carrier Sense Multiple Access/Collision

Detect. At a same time when two computers are sending data to each other

in a single way then collision happens. In that case CSMA/CD stops the

collision and retransmits the data after sometime in the network.

**CAL:**-CAL stands for Client Access License. Any client computer who

accesses the server in a network must require a license. There are two types

of license Per Server and Per Seat. We convert Per Server to Per Seat at one

time but we cannot convert from Per Seat to Per Server.

**Adminpack.msi:**-For Installing/Uninstalling of Administrative tools we use

Adminpack.msi.

**Safe Mode:**-In this mode load only basic devices and drivers that are require

to start the computer. not loading the following drivers such as VGA card,

soundcard, network card etc. Only load the Basic driver Such as keyboard,

mouse, and storage device.

**VGA MODE:**-Load the basic VGA driver. This mode is useful if a video

driver is preventing windows operating system from starting properly, basic

resolution 480 x 640 pixels setting are applies.

**DNS SERVER:**-DNS stands for domain name system. It is a basically use

for name resolution purpose of Windows 2000/2003 clients in the network

on working purpose. There are two types of zones:

**1. Forward Lookup Zone:**-It is basically used for resolving Host name

to IP Address in the network.

**2. Reverse Lookup Zone:**-It is basically used for resolving IP Address

to Host name in the network.

**Related Domain:** - Related to Domain There are three types of zone:

**1. Active Directory Integrated Zone:**-Active Directory Integrated Zone

is integrated with Active Directory. For creating this zone Active

Directory and DNS is necessary on a particular computer in the

network.

**2. Standard Primary Zone:**-Standard Primary Zone is not integrated

with Active Directory. For creating this zone only DNS is necessary

not Active Directory is required.

**3. Standard Secondary Zone:**-Standard Secondary Zone is clone copy

of master DNS Server such as Active Directory Integrated Zone or

Standard Primary Zone.

**Zone:**-Zone is the database in the DNS where all computers A Record (Host

Record) and PTR Record (Pointer Record) are Available in the network.

**Virtual Memory:**-Virtual Memory is some space in the Hard Disk that is

used whenever RAM is full in computer.

**Unattended Installation:**-In this process we create an answer file. By this

process we can run the automatically installation of Windows 2000/2003

Operating System.

**DFS:**-DFS stands for Distributed File System. It is a central location of any

user in the network and that is linked with all of the share folder in the

network. By DFS user will be only access the DFS server and further access

any share folder in the network.

**Hardware Profile:**-For battery saving purpose or electricity saving purpose

we can use the Hardware Profile. It is basically use for mobile user in the

network. There are two main important parts in the Hardware Profile for

examination point of view first is Dock and second Undock station. Dock

station—inside the office, undock station—outside the office.

**Internet:**-The worldwide collection of all Networks and Gateways that is

uses TCP/IP protocol is called Internet. It is a example of WAN/it is also

known as WAN. Internet uses the high speed data communication lines

between the major nodes and the host computer. Internet is a public Net and

everybody can access it without user name and password.

**Intranet:**-A private network within an organization that is uses for distribute

the information within the organization is called Intranet. It is a example of

LAN/it is also known as LAN. In Intranet only the organization people can

access and use the Intranet.

**Extranet:**-A private network that is working within a organization and

outside the organization but not for public/everybody is called Extranet. In

Extranet the company employees, distributors, suppliers, customer etc. can

access the network.

**DHCP:**-DHCP stands for Dynamic Host Configuration Protocol. DHCP

Server provides the automatically TCP/IP configuration of all of the clients

in the network.

**APIPA:**-APIPA stands for Automatic Private IP Addressing. When I

configure a computer in TCP/IP setting to obtain IP Address automatically

and my DHCP Server is not available or not responding to DHCP client in

that case the computer receive a IP Address from APIPA in the range of

169.254.0.0.APIPA RANGE—169.254.0.1 to 169.254.255.254

**DHCP Scope:** - A DHCP scope is a range of IP Addresses in the DHCP

Server Who leases the IP address to DHCP Client in the network. There are

three types of Scopes:

**1. Normal Scope:**-

**2. Multicast Scope:**-

**3. Super Scope:**-

**DHCP Relay Agent:**-Suppose I have two subnets that is Subnet A and

Subnet B and both subnets are connected to a Router. I have a DHCP Server

in Subnet A. I configure two scopes in DHCP Server i.e. Scope A for

Subnet A and Scope B for Subnet B. I want to configure that all the

computers in Subnet B receive the IP Addresses from DHCP Server That Is

Located in Subnet A. But my Router is not RFC 1542 (Request for

Comment) compatible in that case I will install a DHCP relay Agent in

Subnet B.

**Scope Option:**-Scope Option provides the additional TCP/IP configuration

of any DHCP client in the network such as the IP Address of DNS Server,

WINS Server, Router etc. There are four types of scope option:

**1. Server Level:**-

**2. Scope Level:**-

**3. Class Level:**-

**4. Reserved Client Level:**-

**Remote Access Connectivity:**-There are two types of Remote Access

Connectivity in The Network.

**1. Dial-up Remote Access:**-For Dial-up Remote Access at least

telephone line and modem are necessary on both side Client side and

Server side. A RAS Server is must be configured at Server side. In

this process Remote Access Client dial the telephone number of RAS

Server and then after giving user name and password. After verifying

user name and password the Remote Access Client connect to the

RAS Server and further connect to the Internal Network.

**2. VPN:**-VPN Stands for Virtual Private Network. In this process

Remote Access Client connect to the VPN Server via Internet. By this

process the communication is very secure and the data are sending and

receiving in tunneling form.

**DNS:**-There are two types of DNS Query:

**1. Iterative Query:**-When a client Query to the DNS Server and if my

DNS Server is having the best result then it will give the best result to

client in the network otherwise it will send a message not found, it is

called Iterative Query.

**2. Recursive Query:**-When a client Query to the DNS Server and if my

DNS Server is having the best result then it will give the best result to

client computer otherwise it forward the client Query on own behalf to

the Root DNS Server and it will give the complete result to the client

Computer in the network, it is called Recursive Query.

**CA:**-CA stands for Certification Authority. CA provides the secure

communication between two or more computers in the network. There are

four types of CA:

**1. Enterprise Root CA:**-

**2. Enterprise Subordinate CA:**-

**3. Stand Alone Root CA:**-

**4. Stand Alone Subordinate CA:**-

Enterprise Root CA and Enterprise Subordinate CA required the Active

Directory but Stand Alone Root CA and Stand Alone Subordinate CA do not

require Active Directory.

**IP Sec Policy:**-IP Sec Policy provides the secure communication between

two or more computers in the network. There are three types of IP Sec

Policy in the network:

**1. Client Respond Only:**-

**2. Secure Server Required Security:**-

**3. Secure Server Request Security:**-

**ICS:**-ICS stands for Internet Connection Sharing. It is basically used in

workgroup to share the Internet connection.

**NS Lookup:**-NS Lookup check that my DNS Server is working properly or

not in the network.

**Scavenging:**-Scavenging is use to clear the stale records in the DNS Server.

**WINS:**-WINS stands for Windows Internet Naming System. It is basically

use for Name Resolution purpose for previous version of Windows 2000

Clients in the network. It is resolving NetBIOS Name to IP address in The

Network There is three types of Replication partner in the WINS Server:

**1. Push Partner:**-

**2. Pull Partner:**-

**3. Push-Pull Partner:**-(By Default)

There are four Types Of nodes in WINS Server:

B – Node (Broadcasting)

P – Node (Search Server)

M – Node (B + P)

H – Node (P + B)

**RIS:**-RIS Stands for Remote Installation Service. In this process the

computers are connected to a server running Remote Installation Service and

then after RIS Server install the Windows 2000 Professional on those

computers. In this process the client computers uses the PXE Card.

**Home Folder:**-Home Folder is a central location of any user in the network

where he can save file and folder. Home Folder shows as a drive in the

computer when a user login the network from anywhere.

**Tracert:**- Tracert display Complete Routes Information from source

computer to destination computer in the network.

**Telnet:**-Telnet provides the remotely logon the computer and working on

that computer.

**Global Catalog Server:** - A Global Catalog Server is a forest root domain

that creates a relationship between two computers within the Single Forest

By default first root domain controller is the global catalog server in the

network. It stores the information about universal group in the network.

Global Catalog Server Maintain The Read Only Copy To All Of The

Domain Inside The Forest.

**User Right:**-User Rights authorized a user to who logon to the network or

computer to perform certain action on the system. There are some common

User Rights:

A. Log on Locally

B. Change the System Time

C. Shut Down the System

D. Access the Computer from Network

**Power User:**-A user that Are having the special authority to maintain the

user accounts such as add a user account, delete a user account, modify a

user account, change the password of a user etc. is called Power User.

**Backup Operator:**-A user that is having the power of Backup and Restore

the file of a computer it is called Backup Operator.

**Wireless Communication:**-In Wireless Communication we have not need

to attach a device to the computer by the help of wire. Wireless

Communication device works on the basis of receive and transmit the analog

or digital signals in The Network. There are two types of Wireless

Communication:

**1. Infrared Transmission:**-In Infrared Transmission an infrared light

beam is used to carry the data between transmit and receiving device.

There must be a clear line between transmit and receiving device for

communication. TV and Remote is the example of Infrared

Transmission.

**2. Narrowband Radio Transmission:**-In Narrowband Radio

Transmission user tunes both the transmitter and the receiver to a

certain frequency. Narrowband Radio Transmission does not require a

clear line between both devices. Radio and FM is the example of

Narrowband Radio Transmission.

**PPTP:**-PPTP stands for Point to Point Tunneling Protocol. It is used in RAS

connectivity. PPTP enable the secure transfer of encapsulate data between a

PPTP Client and a PPTP Server across the Internet. PPTP uses MPPE

(Microsoft Point-to-Point Encryption) to encrypt the data.

**L2TP:**-L2TP stands for Layer Two Tunneling Protocol. It is used in RAS

and more secure then PPTP. L2TP enables the secure transfer of encapsulate

data between L2TP Client and L2TP Server across the Internet. L2TP uses

IP Sec (Internet Protocol Security) for Encrypt the data.

**Three Way Hand Shake:**-TCP is a reliable Protocol. When two computers

communicate that using TCP, firstly establish a connection before the

exchange of data, it is called session. Two computers establish a session by a

process that is called Three Way Hand Shake. There are three steps in Three

Way Hand Shake process:

A. The source computer initiates the connection by transmitting

the session information.

B. The destination computer responds with its session

information.

C. The source computer receives the information and sends an

acknowledgement.

**Host Name:**-A Host Name is a user friendly name that is given by us to a

computer to identify him. The Host Name is a 15 byte or up to 255 character

length name.

**NetBios Name:**-A NetBIOS Name is a 15+1 byte name in that 15 byte is

host name that is given by us and 1 byte is generated by computer

automatically.1 Byte Depends on That Computer Are Providing Which

Kinds Of services In the Network.

**Web Server:**-A server computer that provides the services related to web

site/Internet is called Web Server.

**Class-full IP Address:**-All the IP Addresses are divided into five classes

class A, B, C, D and E. All the classes having a default subnet mask

according to its class. So the IP Address that is given with its default subnet

mask is called Class-full IP Address.

**Class-less IP Address:**-All the IP Addresses are divided into Five Classes

class A, B, C, D and E. All the classes having its default subnet mask. When

we change the default subnet mask of an IP Address by the help of sub

netting and super netting, it is called Class-less IP Address.

**Driver Signing:**-Sometimes when we install a new driver/software on the

computer then its installation process is overwrite some system files and

damage or creating some problem with our operating system. To stop this

thing windows 2000 have a feature i.e. Driver Signing. Driver Signing

check the driver/software is signed by Microsoft or not. There are three

Options in Driver Signing:

**1. Ignore:**-In Ignore Windows do not check the signed or unsigned

driver and install the driver normally.

**2. Warn:**-In Warn Windows check the driver is signed or unsigned and

give a warning massage during installation for unsigned driver.

**3. Block:**-In Block Windows never install the unsigned driver.

**Permission Inheritance:**-All the permissions is assigned to a folder is

automatic apply on its subfolder or files, it is called Permission Inheritance.

**Take Ownership:**-If the administrator has no rights or permissions on an

object then the administrator can be the owner of that object by the using the

power i.e. Take ownership and forcibly get the permission on that object.

**Recovery Agent:**-Recovery Agent has the power of Decrypt the file of any

user.

**Decryption:**-Change an Encrypted file to a simple file is called Decryption.

Or

Remove the Encryption from a file or Folder is called Decryption.

**Hidden Share:**-When we share a object with the $ sign, it is called Hidden

Share. Hidden Share object is not shown as like normal share objects.

**Print Device:**-Print Device is a hardware that is physically prints a

document.

**Spool Folder:**-Spool Folder shows the entire documents that are waiting for

print in print queue.

**Default Printer:**-Which printer I want to give priority to print document

that is known as Default Printer.

**Printer Pooling:**-By the Printer Pooling we can connect one Printer Driver

with two or more print device for load balancing Purpose In The Network..

In printer Polling We Can say

One Master and More than one servant are Available in the Network. In

printer pooling it is necessary that print device is same manufacturer and

same model no.

**Printer Priority:**-By Printer Priority we can connect two or more printers

with one print device and set the priority of each printer that whose

document is print firstly In the Network. In printer priority We Can say one

servant and more than one master are Available in the Network. In that case

which work will be first? We Can configure the priority on the printer, such

as—manger—99, user—1

**Internet Printing:**-By the Internet printing we can print a document

remotely in the Network. In Internet Printing we can print the document on

the print device that is located in other city.

**Scope of Group:**-There are three types of Group scopes In the Network:-

**1. Domain Local Group:**-In Domain Local Group –user Belongs to

Any Domain and Access resources My Domain.

**2. Global Group:**-In Global Group –User Belongs To My Domain and

Access Resources Any Domain.

**3. Universal Group;**-In Universal Group user –User Belongs to Any

Domain and Access Resources Any Domain.

There are two types of Groups:

**1. Security Group:**-Security Group is basically used for give the

permission to the user on a Particular resource of the network.

Security Group is having all the features of Distribution Group.

**2. Distribution Group:**-Distribution Group is basically created for

sending E-Mails in The Network. On Distribution Group we can not

assign the permission For Any Objects in The network. Distribution

Group Can Not Work As A Security Group.

**Disaster:**-An event that becomes a cause to unable to start Windows

properly such as corruption of boot sector, deleting or missing system file

etc. is called disaster.

**Disaster Recovery:**-When a computer disaster occurs after that the process

of restoring the computer to its original state that is prior of disaster is called

Disaster Recovery.

**ERD:**-ERD stands for Emergency Repair Disk. ERD having a backup copy

of system state data such as registry, system files, partition boot sector,

startup environment etc. It is most important tool to recover your system

registry.

**Disk Duplication:**-When we need to install Windows 2000/2003 on a large

number of computers. We have create a disk image of Windows 2000/2003

installation and then copy the image to the multiple computers that process

is called Disk Duplication.