

Windows server assignment - **Windows Server Basics & Installation**

1. What two options are provided in the type of installation window during Windows Server 2016 installation?

Ans: **Server Core Installation** ---- Minimal installation without a graphical user interface (GUI).

Server with Desktop Experience ----- Full installation with GUI and management tools.

2. Write the step How to configure server step by step?

Ans: Install Windows Server OS-----Set Administrator password-----Assign a static IP address-----Rename the computer-----Join or create a domain-----Configure Windows Updates-----Ins-----required roles and features via Server Manager-----Set time zone and regional settings-----Enable Remote Desktop if needed-----Test configuration and reboot

3. What are the Pre installation tasks?

Ans:

Verify hardware requirements.

- Check compatibility and available drivers.
- Plan disk partitions and network settings.
- Backup existing data.
- Decide on installation type and edition.
- Ensure BIOS/UEFI settings are correct

4. What are the Post installation tasks?

Ans:

- Install latest updates and patches.
- Configure IP, DNS, and firewall.
- Rename server (if needed).
- Join domain or configure AD DS.
- Install roles (DNS, DHCP, File Server, etc.).
- Create user accounts and groups.
- Test server functionality and backup setup.

5. What is the standard upgrade path for Windows Server?

Ans:

- **Windows Server 2012 → 2016**
- **Windows Server 2012 R2 → 2016**

6. What is the Physical structure of AD?

Ans: **Domain Controllers** – Store and manage directory data.

Sites – Represent physical network locations.

Subnets – Define IP address ranges within sites

7. What are the logical components of Active Directory?

Ans:

Domains – Basic administrative boundary.

Trees – Hierarchical group of domains.

Forest – Collection of trees sharing a schema.

Organizational Units (OUs) – Containers for users, groups, and computers.

Global Catalog – Stores partial data from all domains.

8. What is the full form of LDAP?

Ans: Lightweight Directory Access Protocol

9. What is the location of the AD database?

Ans: C:\Windows\NTDS\NTDS.dit

10. What is a child DC?

Ans: A domain controller in a **child domain**, which is part of a **parent domain hierarchy**

11. Explain the term forest in AD

Ans: A **forest** is the top-level container in AD that holds one or more **domain trees**. All domains in a forest share a **common schema**, **global catalog**, and **trust relationships**.

12. What is Active Directory? Check all that apply.

Ans: **Microsoft's implementation of a directory server**

An LDAP-compatible directory server

13. When you create an Active Directory domain, what's the name of the default user account?

Ans: Administrator

14. AD domain provides which of the following advantages? Check all that apply

Ans:

Centralized authentication

Centralized management with GPOs

More detailed logging

15. What are the minimum hardware requirements for installing Windows Server 2016?

- Processor: 1.4 GHz 64-bit processor
- RAM: 512 MB (2 GB for Server with Desktop Experience)
- Disk Space: 32 GB minimum
- Network: Gigabit Ethernet adapter
- Other: DVD drive (or USB boot), UEFI/BIOS support

16. Explain the different editions of Windows Server 2016 and their features.

- **Datacenter Edition** – Supports unlimited virtualization, advanced features like Shielded VMs, Storage Spaces Direct, and Software-Defined Networking.
- **Standard Edition** – For small to medium businesses; supports up to two virtual machines and basic Windows Server features.
- **Essentials Edition** – Limited to 25 users and 50 devices, simplified management, no virtualization rights.

17. Walk through the steps of installing Windows Server 2016 using GUI mode.

1. Boot from installation media (DVD/USB).
2. Choose language, time, and keyboard layout → click *Next*.
3. Click *Install Now*.
4. Select **Windows Server (Desktop Experience)**.
5. Accept license terms.
6. Choose installation type → *Custom: Install Windows only*.
7. Select or create a partition → click *Next*.
8. Wait for installation to complete.
9. Set Administrator password.
10. Log in and configure basic settings.

18. Describe the steps for installing Windows Server 2016 in Server Core mode.

1. Boot from installation media.
2. Choose language and region settings.
3. Click *Install Now*.
4. Select **Windows Server 2016 (Server Core)**.
5. Accept license terms and choose *Custom* installation.
6. Select disk partition and install.
7. After setup, log in using the Administrator account.
8. Configure IP, hostname, and roles using PowerShell commands.

19. How do you configure network settings during Windows Server 2016 installation?

1. After installation, open **Network and Sharing Center** (in GUI) or use **PowerShell**.
2. To set a static IP (PowerShell example):
3. `New-NetIPAddress -InterfaceAlias "Ethernet" -IPAddress 192.168.1.10 -PrefixLength 24 -DefaultGateway 192.168.1.1`
4. `Set-DnsClientServerAddress -InterfaceAlias "Ethernet" -ServerAddresses 192.168.1.2`
5. Verify using `ipconfig` or `Get-NetIPAddress`.

20. Explain the process of promoting a Windows Server to a domain controller.

1. Install **Active Directory Domain Services (AD DS)** role via Server Manager.
2. After installation, click *Promote this server to a domain controller*.
3. Choose *Add a new forest* or *Add to existing domain*.
4. Enter domain name and DSRM password.
5. Review settings and install.
6. System restarts automatically and becomes a domain controller.

21. Discuss the steps involved in upgrading from a previous version of Windows Server to Windows Server 2016.

1. Backup all data and system state.
2. Verify current version supports direct upgrade (2012 or 2012 R2).
3. Run setup.exe from Windows Server 2016 media.
4. Choose *Upgrade: Keep files, settings, and applications*.
5. Follow on-screen prompts and wait for installation.
6. Verify applications, roles, and services post-upgrade.

22. What is Active Directory Domain Services (AD DS), and what are its key components?

AD DS is the core directory service in Windows Server that stores and manages user accounts, computers, and security policies.

Key components:

- **Domain Controllers**
- **Domains**
- **Trees**
- **Forest**
- **Organizational Units (OUs)**
- **Global Catalog**

23. How do you create a new Active Directory user account in Windows Server?

1. Open **Active Directory Users and Computers (ADUC)**.
2. Navigate to the desired **OU**.
3. Right-click → *New* → *User*.
4. Enter user details (name, logon name).
5. Set password and configure options.
6. Click *Finish* to create the account.

24. Explain the process of creating and managing Group Policy Objects (GPOs) in Windows Server 2016 or 2019.

1. Open **Group Policy Management Console (GPMC)**.
2. Right-click domain or OU → *Create a GPO in this domain, and Link it here*.
3. Name the GPO.
4. Right-click the GPO → *Edit*.
5. Configure policies under *Computer* or *User Configuration*.
6. Use `gpupdate /force` to apply changes.

25. What are Organizational Units (OUs) in Active Directory, and how do you use them?

OUs are containers within a domain used to organize users, groups, and computers.

Uses:

- Delegate administrative control.
- Apply Group Policies to specific sets of users or computers.
- Organize directory structure logically.

26. Describe the process of delegating administrative privileges in Active Directory.

1. Open **Active Directory Users and Computers**.
2. Right-click the OU → *Delegate Control*.
3. Follow the Delegation Wizard.
4. Add users or groups to delegate.
5. Choose tasks (e.g., reset passwords, create users).
6. Finish to apply delegation rights.