# Module 12: Installation, Storage, and Compute with Windows Server

**1. What two options are provided in the type of installation window during Windows Server 2016 installation?**  
**Ans.** Windows Server 2016 (Server Core Installation) and Windows Server 2016 (Desktop Experience Installation).

**2. How to configure a server step by step?**  
**Ans.**

1. Install Windows Server
2. Assign a static IP address
3. Rename the computer
4. Join a domain (optional)
5. Install required roles/features
6. Configure Windows Firewall and updates
7. Promote to domain controller (if needed)
8. Set time zone and regional settings
9. Create and manage user accounts

**3. What are the Pre-installation tasks?**  
**Ans.** Verify hardware compatibility, backup data, choose edition, prepare storage, create bootable media, and configure BIOS/UEFI.

**4. What are the Post-installation tasks?**  
**Ans.** Configure network, assign static IP, rename server, activate Windows, install updates, configure roles, harden security, and set up backups.

**5. What is the standard upgrade path for Windows Server?**  
**Ans.** Windows Server 2012 → 2016, Windows Server 2012 R2 → 2016. Server Core must upgrade to another Core edition.

**6. What is the Physical structure of Active Directory?**  
**Ans.** Sites, Domain Controllers, Subnets.

**7. What are the Logical components of Active Directory?**  
**Ans.** Forest, Tree, Domains, Organizational Units (OUs), Objects (Users, Groups, Computers).

**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 Child Domain Controller is a domain controller for a child domain, which is a subdomain under a parent domain within the same AD forest.

**11. Explain the term forest in Active Directory.**  
**Ans.** A forest is the topmost logical container in Active Directory. It contains one or more domains and defines a security boundary with a shared schema and global catalog.

**12. What is Active Directory? Check all that apply.**  
**Ans.**  
✔ Microsoft's implementation of a directory server  
✔ An LDAP-compatible directory server  
✖ An open-source directory server  
✖ A Windows-only implementation

**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  
✖ Better performance

**15. What are the minimum hardware requirements for installing Windows Server 2016?**  
**Ans.** 1.4 GHz 64-bit processor, 512 MB RAM (2 GB for GUI), 32 GB disk space, Gigabit network adapter, UEFI firmware with Secure Boot (optional).

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

* **Datacenter:** Unlimited virtualization, advanced features
* **Standard:** Supports up to two VMs
* **Essentials:** For small businesses (25 users, 50 devices)
* **Multipoint Premium Server:** Educational use

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

1. Boot from installation media
2. Choose language preferences
3. Select 'Windows Server with Desktop Experience'
4. Accept license
5. Choose installation location
6. Complete setup
7. Set Administrator password
8. Configure settings

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

1. Boot from media
2. Choose 'Server Core Installation'
3. Complete setup
4. Login to command prompt
5. Use sconfig or PowerShell to configure

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

* In GUI: Use Control Panel > Network and Sharing Center
* In Core: Use sconfig or PowerShell to configure IP, DNS, and gateway

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

1. Install AD DS role
2. Open Server Manager > Promote to domain controller
3. Choose new domain or forest
4. Set domain name
5. Configure DSRM password
6. Complete wizard and reboot

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

1. Check compatibility
2. Backup data
3. Insert 2016 media and run setup
4. Select upgrade
5. Follow prompts
6. Reapply settings and updates

**22. What is Active Directory Domain Services (AD DS), and what are its key components?**  
**Ans.** AD DS stores object information and manages communication. Components: Domains, Forests, Trees, OUs, Global Catalog, Domain Controllers.

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

1. Open AD Users and Computers
2. Navigate to OU
3. Right-click > New > User
4. Enter info
5. Set password
6. Finish

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

1. Open GPMC
2. Right-click domain or OU > Create GPO
3. Edit GPO
4. Modify settings
5. Link GPO
6. Apply using gpupdate /force

**25. What are Organizational Units (OUs) in Active Directory, and how do you use them?**  
**Ans.** OUs are containers used to organize users, computers, and groups. They allow delegation and policy application.

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

1. Open AD Users and Computers
2. Right-click OU > Delegate Control
3. Select user/group
4. Assign tasks
5. Finish