**// LOKESH PANCHAL //**

**Assignment: Windows Server**

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

**Q. 1.** What two options are provided in the type of installation window during Windows Server 2016 installation? **Ans.** During Windows Server 2016 installation, the two options provided are: **1**.Server with Desktop Experience: Full graphical user interface (GUI). **2**.Server Core: Minimal installation with command-line interface.

**Q. 2**. Write the step How to configure server step by step? **Ans**.  Install Windows Server: Boot from installation media and follow prompts.  Set Up Initial Configuration: Configure network settings, set a static IP, and change the server name.  Add Server Roles and Features: Open Server Manager, select "Add roles and features," and choose the necessary roles.

**Q. 3.** What are the Pre installation tasks? **Ans.** Pre-installation tasks for setting up a server typically include: 1.Check System Requirements: Verify hardware compatibility, storage, memory, and processor requirements for the server OS. 2.Backup Data: Ensure that all important data on the current system is backed up. 3.Plan the Installation: Decide on the server roles, features, and network configuration, and prepare an installation media (USB/DVD).

**Q. 4.** What are the Post installation tasks? **Ans**.  Activate Windows: Activate the server OS with a valid license key.  Install Updates: Download and install the latest updates and patches from Windows Update.  Configure Network Settings: Set up static IP addresses, DNS, and gateway configurations.  Set Up Server Roles: Use Server Manager to add and configure necessary roles and features.  Configure Security Settings: Set up firewalls, user accounts, and permissions, and apply security policies.

**Q. 5.** What is the standard upgrade path for Windows Server? **Ans.** The standard upgrade path for Windows Server involves direct upgrades: Windows Server 2012 to 2016 Windows Server 2016 to 2019

**Q. 6.** What is the Physical structure of AD? **Ans.** The physical structure of Active Directory (AD) consists of domain controllers, sites, and subnets, which manage network traffic and replication.

**Q. 7.** What is the Logical components of Active Directory? **Ans.** The logical components of Active Directory (AD) include: Domains: A logical grouping of network objects (computers, users, devices) that share a common directory database. Trees: Collections of one or more domains grouped together in a hierarchical structure. Forests: Collections of one or more trees that do not share a contiguous namespace but are connected by transitive trusts.

**Q. 8.** What is the Full form Of LDAP? **Ans.** LDAP is **Lightweight Directory Access Protocol.**

**Q. 9.** What is the location of the AD database? **Ans.** This directory contains various files that make up the AD database, including the main database file (NTDS.dit).

**Q. 10.** What is child DC? **Ans.** A child domain controller (DC) in Active Directory refers to a domain controller that exists within a child domain of a larger domain hierarchy. In Active Directory, domains can be organized in a hierarchical structure where child domains are subdomains of a parent domain.

**Q. 11.** Explain the term forest in AD **Ans.** In Active Directory (AD), a forest is a collection of one or more domain trees that do not form a contiguous namespace but are connected through trust relationships.

**Multiple Trees**: Each tree consists of one or more domains, and these trees are not necessarily related in a contiguous namespace hierarc

**Shared Schema and Global Catalog**: A forest shares a common schema, configuration, and global catalog, allowing for unified management and search capabilities across all domains within the forest.

**Q. 12.** What is Active Directory? **Ans.** Active Directory (AD) is a directory service developed by Microsoft for Windows domain networks. It serves as a central location and repository for network administration and security. Key features include: 1. **Directory Services**: Stores information about network resources such as user accounts, computers, printers, and more. 2.**Authentication and Authorization**: Manages user logins, permissions, and access to network resources based on organizational policies. 3.**Domain Services**: Organizes network resources into a hierarchical structure of domains, trees, and forests, facilitating efficient management and scalability.

**Q.** Check all that apply.

● An open-source directory server ● A Windows-only implementation of a directory server

● Microsoft's implementation of a directory server ● An LDAP-compatible directory server

**Ans.**  An open-source directory server  Microsoft's implementation of a directory server  An LDAP-compatible directory server

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

● Super user ● Root ● Username ● Administrator **Ans.** ● Administrator

**Q. 14.** AD domain provides which of the following advantages?

Check all that apply.

● Centralized authentication ● More detailed logging

● Centralized management with GPOs ● Better performance

**Ans.**  Centralized authentication  Centralized management with Group Policy Objects (GPOs)

**Q. 15.** What are the minimum hardware requirements for installing Windows Server 2016? **Ans.** The minimum hardware requirements for installing Windows Server 2016 are as follows:

* Processor: 1.4 GHz 64-bit processor
* RAM: 512 MB (ECC (Error Correcting Code) type or similar technology)
* Disk Space: 32 GB or greater
* Network Adapter: An Ethernet adapter capable of at least 1 Gbps throughput

**Q. 16.** Describe the steps for installing Windows Server 2016 in Server Core mode. **Ans.** Installing Windows Server 2016 in Server Core mode involves the following steps:

1. Boot from Installation Media:  Insert the Windows Server 2016 installation media (DVD, USB, or ISO) and boot the server.
2. Start Installation:  Proceed through the initial setup screens (select language, time, keyboard layout) until you reach the "Install now" screen.
3. Choose Installation Type:  Select "Install now" and accept the license terms.
4. Select Installation Type:  Choose "Windows Server 2016 Standard (Server Core Installation)" or "Windows Server 2016 Datacenter (Server Core Installation)" depending on your edition.
5. Partitioning and Installation:  Follow the prompts to partition and format the disk where you want to install Windows Server 2016.  The installation process will copy files and set up the initial configuration.
6. Configure Network Settings:  During installation, you will have the option to configure network settings. Provide a static IP address if required.
7. Complete Installation:  Once installation completes, the server will restart automatically.

**Q. 17.** How do you configure network settings during Windows Server 2016 installation? **Ans.**  Start Installation: Boot from the Windows Server 2016 installation media (DVD, USB, or ISO). Proceed through the initial setup screens until you reach the "Windows Setup" window.

 Select Language and Region: Choose your language, time, and keyboard input method.

 Install Now: Click on "Install Now" to begin the installation process.

 Accept License Terms: Accept the license terms and click "Next."

 Choose Installation Type: Select the type of installation (typically "Custom: Install Windows only (advanced)").

 Partition Selection: If required, partition and format the hard drive where you want to install Windows Server 2016.

 Network Configuration: During the installation process, you will reach a screen to configure network settings. Click on "Customize" or "Network Settings" (depending on the installation method) to configure network Choose your network adapter and click "Next" to proceed.

 Specify IP Address (if applicable): If you need to specify a static IP address, click on "Specify an IP address" and enter the required details (IP address, subnet mask, default gateway, DNS servers).

 Complete Installation: Once network settings are configured, continue with the installation process by clicking "Next" or "Install." Windows Server 2016 will continue installing with the specified network configuration.

 Post-Installation: After installation completes and the server restarts, verify network connectivity and configure additional network settings as needed using Server Manager or Control Panel.

**Q. 18.** Explain the process of promoting a Windows Server to a domain controller. **Ans.** To promote a Windows Server to a domain controller:

**1.** Install Active Directory Domain Services (AD DS): Open Server Manager, click on "Add roles and features," select Active Directory Domain Services, and complete the installation.

**2.** Promote the Server: In Server Manager, click on "Promote this server to a domain controller." Choose "Add a new forest" or "Add to an existing forest," provide domain and forest functional level, and set Directory Services Restore Mode password.

**3.** Configure Options: Specify additional options like DNS Server if needed, review settings, and proceed with the installation. Server will restart automatically after promotion completes.

**Q. 19.** Discuss the steps involved in upgrading from a previous version of Windows Server to Windows Server 2016. **Ans.** To upgrade from a previous version of Windows Server to Windows Server 2016, backup your server, verify hardware compatibility, and run the setup from installation media. Choose the upgrade option, follow prompts to retain settings and applications, complete installation, update drivers, and verify system functionality post-upgrade

**Q. 20.** What is Active Directory Domain Services (AD DS), and what are its key components? **Ans.** Active Directory Domain Services (AD DS) is a Microsoft directory service that centralizes the management of users, computers, and resources within a network. Key components include Domain Controllers (DCs), the Active Directory Database (NTDS.dit), and Global Catalog (GC). Other essential elements are Organizational Units (OUs), Sites and Subnets, Replication, and Trust Relationships.

**Q. 21.** How do you create a new Active Directory user account in Windows Server ? **Ans.** To create a new Active Directory user account in Windows Server: 1.Open Active Directory Users and Computers (ADUC) from the Start menu or by typing dsa.msc in the Run dialog. 2. Navigate to the Organizational Unit (OU) where you want to create the user. 3. Right-click the OU, select New, and then click User. 4. Fill in the user's details (e.g., First name, Last name, User logon name) and click Next. 5. Set a password for the user, configure password options, and click Next. 6.Review the details and click Finish to create the user account.

**22.** Explain the process of creating and managing Group Policy Objects (GPOs) in Windows Server 2016 or 2019. **Ans.** To create and manage Group Policy Objects (GPOs) in Windows Server 2016 or 2019, use the Group Policy Management Console (GPMC). Create a new GPO, configure policy settings in the Group Policy Management Editor, link the GPO to an Organizational Unit (OU), and apply it to client machines using **gpupdate /force.**

**Q. 23.** What are Organizational Units (OUs) in Active Directory, and how do you use them? **Ans.** Organizational Units (OUs) in Active Directory are containers used to organize users, groups, computers, and other OUs within a domain. They enable the application of group policies, delegation of administrative control, and structuring of resources to reflect an organization's hierarchy. OUs help streamline management and improve security by grouping similar objects together.

**Q. 24.** Describe the process of delegating administrative privileges in Active Directory. **Ans.** Here's a simplified process for delegating administrative privileges in Active Directory: **1**.Open Active Directory Users and Computers (ADUC): o Run dsa.msc from the Run dialog or Start menu.

**2.** Navigate to the Organizational Unit (OU): o Locate the OU where you want to delegate control.

**3.** Right-click the OU: o Select “Delegate Control” from the context menu.

**4.** Use the Delegation of Control Wizard: o Click "Next" on the welcome page. o Click "Add" to select the user or group to whom you want to delegate control. o Choose from predefined tasks or create custom tasks to delegate. o Review and finish the wizard.