Module 14- Windows Server – Identity with windows server

1. Explain the process of installing and configuring Hyper-V virtualization in windows sever 2016.

Ans-> The process of installing and configuring Hyper-V virtualization in windows server 2016 steps are as follow:-

1. Open Server Manager.
2. Select Add Roles and Features from the Manage menu.
3. Verify the destination server and network environment are ready.
4. Select Role-based or feature-based installation.
5. Select a server from the server pool.
6. Select Hyper-V from the Server Roles page
7. Select Add Features
8. Select Install
9. **Create and configure virtual machines**
10. Open Hyper-V Manager
11. Select New > Virtual Machine from the Actions pane
12. Specify the name, location, generation, memory, and other details for the virtual machine
13. Select Next to proceed
14. Review the summary and select Finish to create the virtual machine.
15. How do you monitor server performance and manage event logs in Windows Server?

Ans-> Monitoring server performance and managing event logs in **Windows Server** are crucial tasks for ensuring system stability, identifying potential issues, and maintaining optimal performance.

* There are some step of monitor server performance are as follow:-

1. Task Manager - Press Ctrl + Shift + Esc or right-click the taskbar and select **Task Manager**.
2. Performance Monitor - type ‘perfmon’ in the **Run** dialog.
3. Resource Monitor - type ‘resmon’ in the **Run** dialog.
4. Windows Admin Center - Install **Windows Admin Center** and connect it to your server.
5. Event Viewer Integration - Combine real-time performance monitoring with logs from **Event Viewer** to correlate performance issues with logged events.

* Manage event logs in windows server step by step are as follow:-

1. Open Event Viewer - type ‘eventvwr’ in the **Run** dialog.
2. Types of Logs – 1. Application 2. System 3. Security
3. View Logs – Expand a log category (e.g., **System**) and select a log.
4. Filter and Search Logs -  **vent Level** (e.g., Errors only).

 **Event ID**.

 Specific time ranges.

1. Export Logs - Right-click a log, select **Save All Events As**, and choose a format (e.g., .evtx).
2. Clear Logs - Right-click the log and select **Clear Log** to free up space.
3. Describe the different types of storage options available in Windows Server.

Ans-> Windows Server offers a range of storage options to meet the needs of various workloads and environments. These storage solutions provide flexibility, scalability, and high performance, whether you're working with local storage, networked storage, or cloud-based storage.

* The different types of storage options are as follow:-

1. Direct-Attached Storage (DAS)
2. Network-Attached Storage (NAS)
3. Storage Area Network (SAN)
4. Cloud-Based Storage
5. Windows Server Storage Spaces
6. ReFS (Resilient File System)
7. Storage Spaces Direct (S2D)
8. File and Block Storage
9. Deduplication and Compression
10. Shared Folders and Distributed File System (DFS)
11. What is the role of File Server in Windows Server, and how do you configure it?

Ans-> A **File Server** in Windows Server provides centralized storage, management, and sharing of files across a network. It is a critical component in many environments, allowing users and applications to securely access, store, and collaborate on files.

1. Centralized File Storage
2. File Sharing
3. Access Control
4. Backup and Recovery
5. DFS (Distributed File System)

* To Configure a File Server in Windows Server:-

1. Install the File Server Role
2. Open Server Manager
3. Add Roles and Features
4. Select the Server
5. Select the File and Storage Services Role
6. Confirm and Install
7. Share a Folder
8. Create a Folder for Sharing
9. Share the Folder
10. Configure NTFS Permissions
11. Access the Share
12. Configure Access Control
13. Set NTFS Permissions
14. Set Share Permissions
15. Use Groups for Permissions
16. Enable Advanced Features (Optional)
17. Configure Quotas
18. Enable File Screening
19. Set Up Distributed File System (DFS)
20. Enable Offline Files
21. Test and Monitor
22. Test File Sharing
23. Monitor Access
24. Back Up Shared Data
25. Explain the process of implementing and managing Distributed File System (DFS) in Windows Server 2016.

Ans-> Implementing and managing **Distributed File System (DFS)** in **Windows Server 2016** allows organizations to create a unified namespace for file shares and provide fault-tolerant, geographically distributed access to files. DFS consists of two components: **DFS Namespaces (DFS-N)** and **DFS Replication (DFS-R)**.

1. Discuss the built-in backup and recovery options available in Windows Server 2016 or 2019.

Ans-> Windows Server 2016 and 2019 provide robust built-in backup and recovery options to ensure data protection and system availability. These tools are easy to configure and manage, catering to various scenarios, such as file-level recovery, system state restoration, and full-server recovery.

1. How do you configure Windows Server Backup to back up critical data?

Ans-> Configuring **Windows Server Backup** to back up critical data involves installing the backup feature, selecting the data to back up, and scheduling backups to ensure regular data protection. Here's a step-by-step guide:

1. Install Windows Server Backup Feature.
2. Launch Windows Server Backup.
3. Set Up Backup.
4. Verify Backup Configuration
5. Test Recovery.
6. Monitor Backup Jobs.
7. Explain the steps for restoring files and folders using Windows Server Backup.

Ans-> Restoring files and folders using **Windows Server Backup** is a straightforward process. Follow these steps to recover your data:

1. Launch Windows Server Backup
2. Start the Recovery Process
3. Select the Backup Date and Time
4. Choose the Recovery Type
5. Select Files and Folders to Restore
6. Specify the Recovery Destination
7. Confirm and Start Recovery
8. Monitor the Restoration Progress
9. Verify the Restored Files
10. What are some common troubleshooting techniques for Windows Server startup issues?

Ans-> Troubleshooting Windows Server startup issues involves systematically identifying and resolving problems that prevent the server from booting correctly. Here are some common techniques:

1. Identify the Problem
2. Safe Mode
3. Check the Boot Order
4. Use Windows Recovery Environment (WinRE)
5. Check System Logs
6. Verify Disk Integrity
7. Disable Faulty Drivers
8. Restore System State
9. Perform a Clean Boot
10. Use Last Known Good Configuration (Legacy Mode)
11. Roll Back Updates
12. Repair Corrupted System Files
13. Check Hardware
14. Reinstall Windows Server
15. How do you troubleshoot network connectivity problems in Windows Server?

Ans-> Troubleshooting network connectivity problems in Windows Server requires a systematic approach to isolate and resolve issues. Here are the key steps you can take:

1. **Check Basic Hardware and Network Configuration**
2. **Use Ping Tests to Diagnose Network Issues**
3. **Verify DNS Configuration**
4. **Check Firewall and Security Settings**
5. **Verify Routing and Subnet Configuration**
6. **Use Traceroute to Diagnose Routing Issues**
7. **Review Event Logs for Network-Related Errors**
8. **Reset Network Stack (TCP/IP Stack)**
9. **Check for Driver and Hardware Issues**
10. **Test with Another Computer**
11. **Review Group Policies or Network Configuration Changes**
12. Discuss common Active Directory-related issues and their troubleshooting steps.

Ans-> Active Directory (AD) is a critical component of Windows Server environments, and issues with AD can cause significant disruptions. Troubleshooting AD-related problems involves a combination of network, server, and AD-specific diagnostics. Here’s a list of **common Active Directory-related issues** and their **troubleshooting steps**:

1. Domain Controller (DC) Not Responding or Offline
2. Replication Issues Between Domain Controllers
3. User Login Failures
4. Group Policy Issues
5. Domain Join Issues
6. FSMO Roles Issues
7. Active Directory Replication Latency
8. Explain how to troubleshoot performance problems on Windows Server 2016 or 2019.

Ans-> Troubleshooting performance problems on **Windows Server 2016** or **2019** involves a systematic approach to identify and resolve the root cause. Performance issues can manifest in various ways, including slow system responsiveness, high CPU usage, memory pressure, or slow network performance.