**Windows server Assignment**

**Module: 13**

**[Networking with Windows Server]**

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1. Discuss the role of Windows Firewall in Windows Server and how to configure it.

* **Role of Windows Firewall and Configuration**
* **Role**: Windows Firewall protects servers by filtering incoming/outgoing network traffic based on security rules.
* **Configuration**:
* Open *Windows Defender Firewall* from Control Panel.
* Use *Advanced Settings* to create inbound/outbound rules.
* Enable/disable rules as required for network security.

1. What is Network Address Translation (NAT) in Windows Server, and how do you configure it?

* **Definition**: NAT translates private IP addresses to public IPs, enabling devices to access the internet with a single public IP.
* **Configuration**:
* Install the *Remote Access* role via Server Manager.
* Configure NAT in *Routing and Remote Access*.
* Set up a private network interface and enable NAT for internet sharing.

1. Explain the concept of Dynamic Host Configuration Protocol (DHCP) and how to configure it in Windows Server 2016.

* **Definition**: DHCP dynamically assigns IP addresses to devices on a network.
* **Configuration**:
  + Install the *DHCP Server* role using Server Manager.
  + Authorize the server in Active Directory.
  + Create and configure scopes for IP address allocation.

1. Describe the process of configuring DNS (Domain Name System) in Windows Server.

* **Configuring DNS in Windows Server**
* Install the *DNS Server* role via Server Manager.
* Open the DNS Manager and create a new Forward Lookup Zone.
* Add records (A, CNAME, MX) for name resolution.

1. What is Server Manager, and how do you use it to manage servers in Windows Server?

* **Server Manager and Usage**
* **Definition**: A management tool to monitor, configure, and manage roles, features, and servers.
* **Usage**:
* Add servers to manage via the *Dashboard*.
* Install roles/features or monitor performance using role-specific tools

1. Discuss the role of Remote Desktop Services (RDS) in Windows Server 2016 or 2019 and how to configure it.

* **Role of Remote Desktop Services (RDS)**
* **Role**: RDS provides remote access to applications or desktops over a network.
* **Configuration**:
* Install *Remote Desktop Services* via Server Manager.
* Configure *Session Host*, *Licensing*, and *Gateway* as needed.