20743: Upgrading Your Skills to MCSA: Windows Server 2016

Course Details

Course Outline

1. **Installing and configuring Windows Server 2016**
    - Introducing Windows Server 2016
    - Installing Windows Server 2016
    - Configuring Windows Server 2016
    - Preparing for upgrades and migrations
    - Migrating server roles and workloads
    - Windows Server activation models
    - o **Lab : Installing and configuring Server Core**
    1. Installing Server Core
    2. Completing post-installation tasks on Windows Server 2016 Core
    3. Performing remote management

2. **Overview of storage in Windows Server 2016**
    - Overview of storage in Windows Server 2016
    - Implementing Data Deduplication
    - Configuring iSCSI storage
    - Configuring the Storage Spaces feature in Windows Server 2016
    - o **Lab : Implementing and managing storage**
    1. Implementing File Server Resource Manager (FSRM)
    2. Implementing Data Deduplication
    3. Configuring iSCSI storage

3. **Implementing directory services**
    - Deploying Active Directory domain controllers
    - Implementing service accounts
    - Azure AD
    - o **Lab : Implementing and managing AD DS**
    1. Cloning a domain controller
    2. Implementing service accounts

4. **Implementing AD FS**

- Overview of AD FS
- Deploying AD FS
- Implementing AD FS for a single organization
- Implementing Web Application Proxy
- Implementing SSO with Microsoft online services
  - o **Lab : Implementing AD FS**
1. Installing and configuring AD FS
2. Configuring an internal application for AD FS
  - o **Lab : Implementing Web Application Proxy**
3. Implementing Web Application Proxy

5. **Implementing network services**
   - Overview of networking enhancements
   - Implementing IPAM
   - Managing IP address spaces with IPAM
     - o **Lab : Implementing network services**
   1. Configuring DNS policies
   2. Configuring DHCP failover
   3. Configuring IPAM

6. **Implementing Hyper-V**
   - Configuring the Hyper-V role in Windows Server 2016
   - Configuring Hyper-V storage
   - Configuring Hyper-V networking
   - Configuring Hyper-V virtual machines
     - o **Lab : Implementing server virtualization with Hyper-V**
   1. Installing the Hyper-V server role
   2. Configuring virtual networking
   3. Creating and configuring a virtual machine

7. **Configuring advanced networking features**
   - Overview of high-performance networking features
   - Configuring advanced Hyper-V networking features
     - o **Lab : Configuring advanced Hyper-V networking features**
   1. Creating and using Hyper-V virtual switches
   2. Configuring and using the advanced features of a virtual switch

8. **Implementing Software Defined Networking**

- Overview of SDN

- Implementing network virtualization

- Implementing Network Controller

- o **Lab : Deploying Network Controller**

1. Preparing to deploy Network Controller

2. Deploying Network Controller

9. **Implementing remote access**

- Remote access overview

- Implementing DirectAccess

- Implementing VPN

- o **Lab : Implementing DirectAccess**

1. Configuring DirectAccess using the Getting Started Wizard

2. Testing DirectAccess

10. **Deploying and managing Windows and Hyper-V containers**

- Overview of containers in Windows Server 2016

- Preparing for containers

- Installing, configuring, and managing containers by using Docker

- o **Lab : Installing and configuring containers**

1. Installing Docker Enterprise Edition for Windows Server 2016

2. Installing and configuring an IIS container

11. **Implementing failover clustering**

- Overview of failover clustering

- Implementing a failover cluster

- Configuring highly available applications and services on a failover cluster

- Maintaining a failover cluster

- Implementing a stretch cluster

- o **Lab : Implementing failover clustering**

1. Configuring iSCSI storage

2. Configuring a failover cluster

3. Deploying and configuring a highly available file server

4. Validating the deployment of a highly available file server

5. Configuring CAU on the failover cluster

12. **Implementing failover clustering with Windows Server 2016 Hyper-V**

- Overview of the integration of Hyper-V Server 2016 with failover clustering

- Implementing Hyper-V virtual machines on failover clusters
- Implementing Windows Server 2016 Hyper-V virtual machine migration
- Implementing Hyper-V Replica
  - **Lab : Implementing failover clustering with Windows Server 2016 Hyper-V**
1. The Hyper-V Failover clustering testing environment
2. Configuring Hyper-V Replica
3. Configuring a failover cluster for Hyper-V
4. Configuring a highly available virtual machine