

MCSA: MICROSOFT CERTIFIED SOLUTIONS ASSOCIATE

MCSA SYLLABUS | HOURS 120

Course Outline

Introduction to Microsoft Server and Client Operating Systems

Microsoft Server Overview

Server Operating System Components

User Account Types, Creating user Accounts, Changing User Account Types

Comparing and Understanding Microsoft Server Operating Systems 2003, 2008, 2012, 2016, 2019 and 2022.

Understanding Licensing of Server 2022 Standard Edition and Datacentre Edition

Install, Upgrade, and Migrate Servers and workload

Introduction to Microsoft Powershell

Implement Hyper-V

Introduction to Virtualization

Hypervisor, Hypervisor types, Hosted and Bare-metal hypervisors

Install and configure Hyper-V

Configure virtual machine (VM) settings

Configure Hyper-V storage

Configure Hyper-V networking

Implement Storage Solutions

Configure Disks and Volumes

Implement server storage

File sharing, Folder sharing, Disk sharing

File sharing permissions and Disk security, Disk Quota

Accessing Shared files and Map network drive

Basic Disk, Dynamic Disk, Primary Partition, Extended Partition, Logical Partition

ISCSI

Terminal Services, Remote Desktop, Remote Assistance

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IP Addressing

IP format, IP Address Versions, IPV4 and IPV6

IP Address Classification, IP Subnetting

Private IP Address and Public IP Address

Subnet Mask, Default Gateway, Preferred DNS

IP Address Configuration, Communication Checking

Ping, tracert, ipconfig, netsh cmd or powershell Commands

Maintain and Monitor Server Environments

Maintain server installations

Monitor server installations

Server Manager and Dashboard

Installing Server Roles and Features

Monitoring Server Roles and Features

Implement Networking with DHCP

Overview about DHCP

Install and configure DHCP

Manage and maintain DHCP

IPv4 and IPv6 Scope

Lease, Reservation and Scope options

DHCP address filtering

DHCP client side configuration

DHCP client side verification and troubleshooting

DHCP Backup and Restore

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Implement Domain Name System (DNS)

Install and configure DNS servers

Forward Lookup Zone and Reverse Lookup Zone

Primary, Secondary and Stub Zone

Forwarders and Conditional Forwarders

Zone Transfer and DNSSEC

DNS Resource Records (RR)

SOA, NS, A, AAAA, PTR, SRV, CNAME, and MX records

Root Hints and Dynamic DNS

DNS Backup and Restore

Implement Network Connectivity and Remote Access Solutions

Implement network connectivity solutions with NAT

Implement virtual private network (VPN) and DirectAccess solutions

Implement Network Policy Server (NPS)

Implement IP Address Management IPAM

Overview about IPAM

Installing IPAM feature

Connecting and configuring IPAM server

Monitoring and Managing IPAM server

Accessing and Configuring DHCP, DNS and NPS using IPAM

Implement Windows Deployment Service WDS

Overview about WDS

Installing WDS role

Configuring and Maintaining WDS

Adding Operating system images and boot images to WDS

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Monitoring and Installing Operating system for client systems using WDS server

Implement Internet Information Service (IIS)

Overview about Microsoft IIS

Installing Webserver (IIS) role

Creating a test webpage

Configuring IIS webserver

Monitoring and troubleshooting IIS

Installing and Configuring Domain Controllers

Introduction to Active Directory Domain Services

Overview of Identity Management Concepts

Active Directory Domain Services Components

Overview of ADDS Domain Services

Deploying Domain Controllers

Managing AD DS Objects

Overview of Object Management

Managing User Accounts

Managing Groups

Managing Computer Accounts

Managing Organizational Units

Securing Active Directory Domain Services

Managing Organizational Units

Implementing Account Security Auditing AD DS

Configuring Managed Service Accounts

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Working with Complex AD Infrastructures

Overview of Advanced AD DS Deployments

Deploying a Distributed AD DS Environment

Overview of AD DS Replication

Configuring AD DS Services

Implementing Group Policy

Overview of Group Policy Creating and Configuring GPOs

Monitoring and Troubleshooting Group Policy

Managing Security Options for Computers using Group Policy Managing User Environments

Monitoring and Recovering AD DS

Monitoring AD DS Database Management

Backup and Recovery in AD DS