

## Microsoft Server Administrator (MCSE) Training Syllabus

### Module 1:- Microsoft Server Fundamentals, Workgroup, Domain, VMware Workstation Overview

**Learning Objective:** In this Module you will learn about types of Windows Server Operating System, Disadvantages of Workgroup, Need of Domain and you will see how to create Server using VMware Workstation

- What is Server
- Client and Server Operating System
- What is Workgroup and Domain
- How a Workgroup Environment is Created
- How a Domain Environment is Created
- Difference between Workgroup and Domain
- Types of Role in Server
- Overview of VMware Workstation
- Creation of Server in VMware Workstation

### Module 2:- Active Directory (AD), Domain Controller, Users & Groups

**Learning Objective:** In this Module you will learn about Active Directory Service, DNS Service, Creation of a Domain Controller and Creation of Users and Group

- Understanding of Active Directory(AD) Service
- Understanding of Domain Name System(DNS) Service
- Check the Port Numbers related to Service
- Troubleshooting using Ping and Telnet
- Installing of Active Directory(AD) Service in Server
- Creation of Domain Controller(DC)
- Joining a PC to Domain Environment
- Checking health of Active Directory Service(AD)
- Understanding services of Active Directory(AD)
- Creation of Users & Group in Active Directory(AD)
- Adding Users in group in Active Directory(AD)

## Module 3:- NTFS, ABE, FSRM, Home Folder, Shadow Copies

**Learning Objective:** In this Module you will learn about NTFS Permissions, ABE, FSRM, Home Folders and Shadow Copies

- NTFS Permission(Share & Security)
- Configuring Read/Write/Modify & Special Permission
- Understanding Explicit & Inherited Permission
- Configuring Access Based Enumeration(ABE)
- Configuring Shadow Copies & Home Folder
- Installation of FSRM(File Server Resource Manager)
- Applying Soft & Hard Quota on Folder
- Applying File Screening on Folder

## Module 4:- Organizational Unit (OU) & Group Policy

**Learning Objective:** In this Module you will learn about Group Policy in depth, Password Policy, Account Lock Policy, Delegation of User Management and Creation of OU

- Need of Group Policy & How Group Policy Works
- User Policy & Computer Policy
- Default Domain Policy & Default Domain Controller Policy
- Group Policy Order and Precedence
- Configuring Recycle Bin Policy & Wallpaper Policy
- Configuring Audio Policy & Screen Saver Policy
- Benefits of Organization Unit(OU) & Creation of OU
- Blocking Inheritance & Enforce Policy
- Software Installation using Group Policy
- Group Policy Backup & Restore
- Prevent Policy Application using WMI Filter
- Domain Password Policy & Fine Grain Password Policy
- Configure Password Length, History & Complexity
- Account Lock Policy and Account Lock Troubleshooting
- Delegate access to User/Group for User Management
- Performing Mapped Drive using Group Policy
- Group Policy Troubleshooting steps

## Module 5:- ADC, RODC, Replications, Site & Subnet

**Learning Objective:** In this Module you will learn about ADC, RODC, Site & Subnet and replications

- **Need of Additional Domain Controller(ADC) & Creation of ADC**
- **Multi-Master Replication Between DC & ADC**
- **Understanding of RODC(Read Only Domain Controller)**
- **Replication Between DC & ADC**
- **Checking ADC when DC is down**
- **Creation of Site & Subnet**
- **Understanding of Replication Schedule**
- **Replication Between Domain Controllers(DC & ADC)**
- **Intra-Site & Inter-Site Replication**
- **Understanding of IFM(Install From Media)**
- **Working of KCC & Selection of Bridgehead Server**

## Module 6:- FSMO (Flexible Single Master Operation) Roles

**Learning Objective:** In this Module you will learn about FSMO Roles, how to Transfer the role, how to perform Seizure of roles and understand partition in Active Directory Database

- **Importance of Flexible Single Master Operation (FSMO) Roles**
- **Understanding Forest level and Domain Level Roles**
- **Deep Dive into the working of each Role**
- **Perform Transfer of Schema Master, DNM Master**
- **Perform Transfer of RID , PDC, Infra Master Operations**
- **Impact on Domain when Role Holder DC is Down**
- **Perform FSMO Role Seizure**
- **Active Directory Database Partition**
- **Understanding of Schema & Configuration Partition**
- **Understanding of Domain & Application Partition**

## Module 7:- Multi-Domain /Multi-Forest Environment & Trust, Groups and Global Catalog

**Learning Objective:** In this Module you will learn about creation of Multi-Domain and Multi-Forest Structure, Importance of Groups and Global Catalog

- **Need of Child Domain & Creation of Child Domain**
- **Understanding of Multi-Domain Environments**
- **Adding New Domain to Existing Forest**
- **Understanding DNS Delegation & Forwarders**
- **Understanding of Multi-Forest Environments**
- **Creation of Trust between 2 Forest**
- **Type of Trust and Nature of Trust**
- **Type of Groups in Active Directory**
- **Security & Distribution Group**
- **Global, Domain Local & Universal Group**
- **Understanding of Global Catalog Server**

## Module 8:- DNS, AD Recycle Bin, System State Backup

**Learning Objective:** In this Module you will learn in depth about DNS, Disaster Recovery Mechanism and Backup of AD

- **Need of DNS & Active Directory Integrated DNS**
- **Host File, DNS Cache & DNS Zone**
- **DNS Forwarders, Delegation & Conditional Forwarders**
- **DNS A record, SRV Record , CNAME Record**
- **Recovering Active Directory from Disaster**
- **Active Directory Recycle Bin**
- **System State Backup of Domain Controller**

## Module 9:- DFS, DHCP, WDS, WSUS

**Learning Objective:** In this Module you will learn the steps to configure DFS, DHCP, WDS and WSUS

- Installing DFS Role on the Server
- DFS Namespace & Replication
- How SYSVOL Replication Works
- Installing DHCP Role on the Server
- How DHCP Works
- Understanding of APIPA & DORA Process
- Configure Scope, Exclusion, Lease, Reservation in DHCP
- Installing Windows Deployment Service(WDS) Role
- Configure Boot Image & Install Image
- Deployment of Operating System via Network (PXE Boot)
- Understanding of Windows Server Update Service(WSUS)

## Module 10:- Web Server (IIS), RAID, Virtualization Technologies

**Learning Objective:** In this Module you will learn the importance of Webserver, RAID and other Virtualization Technologies

- Installing IIS Role on the Server
- Creation of Website
- Performing DNS Round Robin
- Installing NLB and Creation of Load Balancer
- Need of Redundant Array of Independent Disk(RAID)
- Configure RAID 0 - Striping , RAID 1 – Mirroring, RAID 5 - Strip Parity
- Understanding RAID 10 - Strip Mirror
- Understanding & Need of Virtualization Technologies

## Module 11:- Active Directory Certificate Service (ADCS), Fail Over Cluster (FOC)

**Learning Objective:** In this Module you will create File Server Cluster and perform Failover of Cluster, Understand the need of certificate and Create Certificate Server

- Need of Failover Cluster
- Installing Failover Cluster (FOC) Role on the Server
- Creation of SAN & ISCSI Disk
- Perform Failover Cluster
- Installing Active Directory Certificate Service(ADCS) Role on the Server
- Creation of Certificate Server
- Enterprise & Standalone CA
- Creation of Domain Certificate using CA
- Applying Certificate to the Webserver

## Module 12:- Migration from 2012 to 2016, Job Search Technique, Resume Preparation Tips and AD Tools

**Learning Objective:** In this Module you will Migrate Active Directory Environment from 2012 to 2016, learn the best technique to search job in the market and the tips to prepare a successful resume & Knowledge on some powerful AD Tools will be shared with you

- Understand the Need of Migration
- Migrate Active Directory Domain from 2012 to 2016
- Perform the Check after Successful Migration
- Upgrade Forest & Domain Functional Levels
- Resume Preparation and Interview Preparation Techniques