

<b>COURSE TITLE</b>	<b>SERVER ADMINISTRATION-II</b>
<b>COURSE CODE</b>	<b>05CA0302</b>
<b>COURSE CREDITS</b>	<b>4</b>

**Objective:**

- 1 Explain the concepts involved in configuring and managing various system types and services
- 2 Describe the structure, functionality, and administration of Active Directory Domain Services (ADDS)
- 3 Illustrate the use and application of Group Policy Objects (GPO) in managing user and computer environments

**Course Outcomes:** After completion of this course, student will be able to:

- 1 Explain the architecture and features of Nano Server and Network Load Balancing (NLB).
- 2 Configure and manage Active Directory Domain Services (ADDS) in a networked environment
- 3 Implement and troubleshoot Group Policy Objects (GPO) to control user and computer configurations within ADDS
- 4 Set up and manage Virtual Private Network (VPN) and File Servers to ensure secure and efficient resource access

**Pre-requisite of course:**NA

**Teaching and Examination Scheme**

<b>Theory Hours</b>	<b>Tutorial Hours</b>	<b>Practical Hours</b>	<b>ESE</b>	<b>IA</b>	<b>CSE</b>	<b>Viva</b>	<b>Term Work</b>
3	0	2	50	30	20	25	25

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<b>INTRODUCTION OF NANO SERVER &amp; NLB</b> Introduction of Microsoft Server, Introduction of Nano server, Create Nano server VM using command, Nano Server remote access from another machine, Installation of Web Server	10
2	<b>CONFIGURING AND MANAGING ADDS</b> Overview of ADDS domain controllers, Deploying a domain controller, Managing user accounts, Log on to & Log on hours' configuration, Implementing and managing OUs, Delegation of OUs	10
3	<b>MANAGING GROUP POLICY IN ADDS</b> Introducing Group Policy, Implementing and administering GPOs, Implementing administrative templates, Configuring Folder Redirection	12

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
4	<b>CONFIGURING VPN &amp; FILE SERVERS</b> Implementing VPNs, Configuring Radius Server, Implementing Distributed File System, FSRM configuration, Hard & soft Quota	13
<b>Total Hours</b>		<b>45</b>

#### **Suggested List of Experiments:**

<b>Contents : Unit</b>	<b>Topics</b>	<b>Contact Hours</b>
1	<b>Unit 1</b> Install and configure Microsoft Server on a virtual machine, Create a Nano Server image using PowerShell commands, Deploy a Nano Server as a Virtual Machine and verify its installation, Set up remote access to a Nano Server from another system, Install and configure IIS Web Server on Nano Server	15
2	<b>Unit 2</b> Install Active Directory Domain Services (ADDS) and promote a server as a domain controller, Create and manage user accounts in Active Directory, Configure logon hours for users and enforce restrictions, Implement Organizational Units (OUs) and delegate administrative control, Deploy a secondary domain controller and verify replication	15
3	<b>Unit 3</b> Create and apply a Group Policy Object (GPO) to enforce security policies, Implement administrative templates and enforce system settings, Configure Folder Redirection for user profiles, Deploy a Group Policy to restrict access to Control Panel settings, Test and troubleshoot Group Policy inheritance and precedence	15
4	<b>Unit 4</b> Set up and configure a VPN server using Windows Server, Install and configure a Radius Server for authentication, Implement a Distributed File System (DFS) for file sharing, Configure File Server Resource Manager (FSRM) and implement file screening, Set up hard and soft quota management for user storage limitations	15
<b>Total Hours</b>		<b>60</b>

#### **Textbook :**

- 1 Installation, Storage and Compute with Windows Server 2016, Craig Zacker, Microsoft Press, 2017
- 2 MCSA Windows Server 2016 Study Guide, William Panek, Sybex (Wiley), 2017

#### **References:**

- 1 A Comprehensive Guide, A Comprehensive Guide, Jordan Krause, Packt Publishing, 2016
- 2 Core Infrastructure, Core Infrastructure, Orin Thomas, Microsoft Press, 2017

### **Suggested Theory Distribution:**

The suggested theory distribution as per Bloom's taxonomy is as follows. This distribution serves as guidelines for teachers and students to achieve effective teaching-learning process

Distribution of Theory for course delivery					
<b>Remember / Knowledge</b>	<b>Understand</b>	<b>Apply</b>	<b>Analyze</b>	<b>Evaluate</b>	<b>Higher order Thinking / Creative</b>
20.00	30.00	25.00	15.00	10.00	0.00

### **Instructional Method:**

- 1 Board Work
- 2 PPT
- 3 Demo

### **Supplementary Resources:**

- 1 <https://www.tutorialspoint.com/windows-server-2019-tutorial-mcsa-and-mcse-topics-in-2022/index.asp>