



Level 5 Diploma in Windows Server Networking (200)
155 Credits






Unit: Windows Server Active Directory	Guided Learning Hours: 260
Exam Paper No.: 3	Number of Credits: 26
Prerequisites: Knowledge in Windows operating system.	Corequisites: A pass or higher in Certificate in Networking or equivalence.
<p>Aim: This unit will take learners through the implementation, maintenance and management of Active Directory. Active Directory Domain Services is Microsoft's Directory Server. It provides authentication and authorisation mechanisms as well as a framework within which other related services can be deployed (AD Certificate Services, AD Federated Services, etc). Working with DNS, configuring zones and setting up Domains is only the tip of the iceberg with this unit. Learners will learn to work with roles, transferring roles and creating migration strategies and implementations; work with Active Directory groups, and trust settings; outline the purpose and implementation of Read Only Domain Controllers; using CA in Windows Server and the newest features and rights management built into the Windows Server. On completion, learners will demonstrate the knowledge, skills and abilities to install, configure and maintain a Windows Server Active Directory structure.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
Special Requirements: The unit requires a combination of lectures, demonstrations, discussions, and hands-on labs.	
<p>Intended Learning Outcomes:</p> <ol style="list-style-type: none"> Windows Server Active Directory core technologies; installing Active Directory on Windows Server and step by step guide to setup Active Directory on Windows. Active Directory Design, the implementation of Active Directory Domain Services, Active Directory concepts, architectural elements, features and design documents essential to a successful Microsoft Windows Active Directory deployment. 	<p>Assessment Criteria:</p> <ol style="list-style-type: none"> Analyse the new and enhanced features of Windows Server Describe the role of a directory service Explain the physical and logical Active Directory structure Describe how to install Active Directory Identify the features of Active Directory objects Identify the containers in Active Directory Identify Active Directory functions and benefits Outline the Active Directory Domain Services deployment overview Demonstrate how to configure a forest or a domain Demonstrate how to configure trusts Demonstrate how to configure Active Directory Lightweight Directory Services Demonstrate how to configure Read-Only Domain Controller (RODC) Describe the components of a site Describe Active Directory Federation Services Describe Active Directory Rights Management Services Demonstrate how to configure domain and forest functional levels Demonstrate how to manage multiple domains and trust relationships

<p>3. Windows Server Active Directory sites and replication; replication topology for all sites; how sites are used to control network traffic generated by replication; Global Catalog and Flexible Single Master Operations (FSMO) roles; the placement of Active Directory Flexible Single-Master (FSMO) roles in the domain and forest for operations that are best performed on a single domain controller.</p>	<p>3.1 Demonstrate how to configure sites and subnets 3.2 Demonstrate how to configure Global Catalogue and Application partitions 3.3 Explain Active Directory Domain Services Replication 3.4 Demonstrate how to configure Active Directory Domain Services Replication 3.5 Demonstrate how to configure global catalogue 3.6 Demonstrate how to configure operations masters 3.7 Demonstrate how to manage operations master roles 3.8 Describe the flexible single operations master (FSMO) roles 3.9 Describe the purpose of having a single-master owner 3.10 Describe the operations masters and their scope 3.11 Explain how to place FSMO and Global Catalog roles in Active Directory 3.12 Explain what are Flexible Single Master Operation (FSMO) Roles</p>
<p>4. Active Directory Administration tools tools for directory searching and filtering, management of object properties, security auditing, customizable queries, advanced attribute management, and many other AD mixed and native-mode features.</p>	<p>4.1 Analyse tools for automating account management 4.2 Describe how to create and administer user accounts 4.3 Analyse NTFS and share permissions 4.4 Explain strategies for using Groups 4.5 Demonstrate how to delegate Administrative Access to Active Directory objects 4.6 Describe user profiles 4.7 Explain how to maintain Active Directory accounts</p>
<p>5. Security planning and administrative delegation in Windows Server Active Directory; planning and implementing account security and planning an organizational unit strategy.</p>	<p>5.1 Describe Smart Cards for Authentication 5.2 Describe how to enable user account for Smart Card Authentication 5.3 Analyse Administrative Control of an Organisational Unit delegating process 5.4 Analyse Active Directory snap-ins 5.5 Create security administration with Least Privileges, Run As Administrator and User Account Control</p>
<p>6. Windows Server Group Policy architecture; the benefits of Group Policy, processing, configuring Group Policy settings using Group Policy Management Console.</p>	<p>6.1 Explain the architecture and processing of GPOs 6.2 Describe how to configure Group Policy settings 6.3 Identify Active Directory security templates settings 6.4 Evaluate the Application of GPOs 6.5 Demonstrate how to create and apply GPOs 6.7 Demonstrate how to configure GPO templates 6.8 Demonstrate how to manage and monitor</p>

<p>7. Configuring user and computer environment using Group Policy Windows Server 2008.</p>	<p>group policies</p> <p>7.1 Demonstrate how to configure account policies</p> <p>7.2 Create Audit Policy configuration using GPOs</p> <p>7.3 Demonstrate how to manage security settings</p> <p>7.4 Monitor and assess account logon events</p> <p>7.5 Describe security policies</p> <p>7.6 Analyse fine-grained password policies implementation</p> <p>7.7 Describe Computer Configuration node setting subcategories Options</p>
<p>8. Installing and deploying software with Group Policy; using Group Policy to remotely install software; Group Policy Management, and tools for managing Group Policy and implementation troubleshooting strategies.</p>	<p>8.1 Describe Group Policy Software Installation (GPSI) settings</p> <p>8.2 Explain software deployment tasks</p> <p>8.3 Explain software life cycle stages</p> <p>8.4 Demonstrate how to configure software deployment through GPOs</p> <p>8.5 Demonstrate how to configure scripts and folder redirection using Group Policy</p> <p>8.6 Explain scenarios that require Group Policy troubleshooting</p> <p>8.7 Identify tools for troubleshooting</p> <p>8.8 Demonstrate how to use Group Policy diagnostic tools</p> <p>8.9 Demonstrate how to troubleshoot Group Policy applications</p> <p>8.10 Demonstrate how to troubleshoot Group Policy settings</p>
<p>9. Active Directory services maintenance utility tools, Active Directory maintenance, troubleshooting and disaster recovery issues.</p>	<p>9.1 Explain server management and monitoring tasks</p> <p>9.2 Identify Active Directory performance and bottleneck issues</p> <p>9.3 Demonstrate how to monitor Active Directory Domain Services using Event Viewer</p> <p>9.4 Demonstrate how to monitor Active Directory Domain Services using Reliability and Performance monitor</p> <p>9.5 Demonstrate how to configure Active Directory Domain Services auditing</p> <p>9.6 Describe Active Directory Domain Services database and log files</p> <p>9.7 Demonstrate how to configure backup and strategise recovery systems</p> <p>9.8 Demonstrate how to perform offline maintenance</p>
<p>10. DNS and Active Directory Domain Services integration, DNS Zone Replication in Active Directory; DNS and Active Directory Integration.</p>	<p>10.1 Describe the structure of DNS</p> <p>10.2 Demonstrate how to install and use DNS server role</p> <p>10.3 Demonstrate how to configure DNS zones and replication</p> <p>10.4 Demonstrate how to configure Ready-Only DNS</p> <p>10.5 Demonstrate how to troubleshoot DNS</p>

<p>11. Active Directory Certificate Services implementation; installing Active Directory Certificate Services; designing and implementing a Public Key Infrastructure (PKI).</p>	<p>and replication issues</p> <p>11.1 Define Active Directory Certificate Services</p> <p>11.2 Explain Public Key Infrastructure concepts and management</p> <p>11.3 Illustrate deployment of the Active Directory Certificate Service role</p> <p>11.4 Demonstrate how to configure a Certificate Authority (CA)</p> <p>11.5 Demonstrate how to manage certificate templates</p> <p>11.6 Demonstrate how to manage enrolments</p> <p>11.7 Demonstrate how to manage certificate revocations</p>
<p>Methods of Evaluation: A 2½-hour written examination paper with five essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Windows Server 2008 Active Directory with a weighting of 100%.</p>	

Recommended Learning Resources: Windows Server Active Directory

<p>Text Books</p>	<ul style="list-style-type: none"> Active Directory: Designing, Deploying, and Running Active Directory ISBN-13: 978-1449320027 Active Directory Administration. ISBN-13 : 978-1789806984
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>Latest Windows Server</p>