Diploma in Windows Networking (200) – Windows Server 2003 Active Directory

Prerequisites: Knowledge in Windows operating system.	**Corequisites:** A pass or higher in Certificate in Networking or equivalence.
Aim: Understanding and configuration of Windows 2003 Server's Active Directory through principles of Active Directory; setting up Active Directory's forest and domain; setting up a organization structure unit; managing user accounts and groups; Group Policy; Application Distribution and controlling with Group Policy; using Domains in Replication Management; placing Domain Controller Computers; setting up special roles and maintaining Active Directory. Lessons encompass tutorial on how to plan, implement and maintain a Microsoft Windows Server 2003 Active Directory infrastructure. The course covers the basics of Active Directory Services, including configuring and managing DNS, forests, domains, zones, software deployment and configuration, security and backup and recovery. The course provide learners with the opportunity to develop the knowledge and skills required to plan, install, manage, and troubleshoot Windows Server 2008 Active Directory.	
Required Materials: Recommended Learning Resources.	**Supplementary Materials:** Lecture notes and tutor extra reading recommendations.
Special Requirements: The course requires a combination of lectures, demonstrations, discussions, and hands-on labs.	

Intended Learning Outcomes:	**Assessment Criteria:**
1. Understand Active Directory services in Windows Server 2003	1.1 Identify the functions and features of Active Directory 1.2 Outline Active Directory architecture and infrastructure 1.3 Analyse the logical and physical structure of Active Directory 1.4 Be able to plan a domain namespace structure 1.5 Analyse Active Directory security requirements 1.6 Describe Active Directory objects 1.7 Identify new tools for Windows Server 2003
2. Understand the Active Directory implementation	2.1 Be able to install and verify Active Directory installation 2.2 Describe operations master roles 2.3 Be able to transfer operations master roles 2.4 Be able to implement Organisational Unit structures 2.5 Be able to use application data partitions 2.6 Outline schema modification process 2.7 Illustrate domain controllers and global catalog servers placement
3. Understand site settings and inter-site replications configuration	3.1 Analyse creation of sites 3.2 Be able to configure site link attributes and bridges 3.3 Be able to check and troubleshoot replication issues
4. Understand the Domain Name System integration with Active Directory	4.1 Describe DNS zones and DNS server roles

		4.2	Be able to install DNS server service
		4.3	Be able to create lookup zones
		4.4	Be able to configure dynamic DNS
		4.5	Implement zone replication and zone transfer
		4.6	Be able to debug and troubleshoot DNS problems
		4.7	Analyse DNS interoperability with Active Directory, WINS and DHCP
		4.8	Be able to design WINS replications
		4.9	Be able to design IP address assignment using DHCP
		4.10	Be able to design security for remote access users
5.	Understand Windows Server 2003 Active Directory User Accounts Management	5.1	Outline user accounts creation strategies
		5.2	Be able to create local user accounts
		5.3	Illustrate local security database settings
		5.4	Be able to create domain user accounts
		5.5	Analyse user account property settings
		5.6	Explore user profiles
		5.7	Be able to create user home directory on server
		5.8	Be able to maintain and manager users
6.	Understand Windows Server 2003 Active Directory Groups implementation	6.1	Analyse the different types of groups
		6.2	Compare and contrast granting individual permissions vs group permissions
		6.3	Analyse group scopes
		6.4	Be able to create Windows Server 2003 Active Directory Groups
		6.5	Outline Windows Server 2003 Active Directory default groups
7.	Understand the different Windows Server 2003 Active Directory Administrative Tasks	7.1	Identify searching for Active Directory objects and attributes
		7.2	Be able to use search attributes
		7.3	Be able to set Active Directory object permissions
		7.4	Be able to publish resources
		7.5	Illustrate how to move Active Directory objects within a domain, between domains and between sites
		7.6	Be able to delegate Active Directory permissions
8.	Understand Active Directory backup and restoration procedures	8.1	Be able to use the Backup Wizard
		8.2	Be able to schedule Active Directory backups
		8.3	Be able to examine Active Directory restores
		8.4	Be able to execute authoritative and non-authoritative restores
9.	Understand the importance of the Group Policy (GP) as the primary Active Directory tool for setting the standard behaviour for users' desktops and to enforce requirements	9.1	Analyse the GP settings and Group Policy Management Console (GPMC)
		9.2	Explore GP containers and templates
		9.3	Analyse Computer configuration settings
		9.4	Analyse User configuration settings
		9.5	Outline the categories of User Configuration and Computer Configuration Group Policy

	9.6	Analyse System Policy Editor settings
	9.7	Identify the sequence in which Computer and User Configuration settings are applied
	9.8	Be able to use Group Policy to manage software
10. Understand Active Directory security configuration	10.1	Analyse the functions of security configuration and consideration factors when designing security policies
	10.2	Identify categories of security policies
	10.3	Analyse the steps in setting up a security audit
	10.4	Be able to setup audit policy
	10.5	Analyse the steps in implementing security templates
	10.6	Be able to troubleshoot security configuration issues
11. Understand Active Directory performance monitoring and management	11.1	Analyse Active Directory monitoring tools
	11.2	Be able to monitor Active Directory performance counters
	11.3	Be able to create performance logs and alerts
	11.4	Outline Active Directory monitoring and troubleshooting support tools
12. Understand Windows Server 2003 Remote Installation Services (RIS) implementation	12.1	Analyse the components of RIS
	12.2	Outline the Remote Installation Services process
	12.3	Be able to configure a RIS server
	12.4	Be able to customise RIS server properties
	12.5	Be able to customise RIS client installation options
	12.6	Be able to create a RIPrep Image
13. Applying Certificate Services in an Active Directory infrastructure	13.1	Describe the Public Key Infrastructure terms and concepts
	13.2	Outline secret **vs** Public Key cryptography
	13.3	Analyse the core components of a PKI
	13.4	Be able to install Certificate Services
	13.5	Be able to configure a Stand-alone Root Certificate Authority (CA)
	13.6	Be able to configure a an Enterprise Root CA.

Recommended Learning Resources:
Windows Server 2003 Active Directory

Text Books	• Mastering Active Directory for Windows Server 2003 R2 by Brad Price, John A. Price and Scott Fenstermacher. ISBN-10: 0782144411 • MCSE Guide to Microsoft Windows Server 2003 Active Directory by Mike Aubert and Brian T. McCann. ISBN-10: 1423902920
Study Manuals	BCE produced study packs
CD ROM	Power-point slides

Software	Windows Server