

Certificate in Networking (107) – Windows Client Networking (Windows 7)

Prerequisites: Basic knowledge in the	Corequisites: A pass or higher in Diploma in
use of Microsoft Windows Applications.	Information Technology or equivalence

Aim: This course will help learners attain the technical skills and knowledge that Information Technology support personnel need to deliver quick informed solutions to computer desktop-related problems. The emphasis is on acquiring proficiency in common desktop applications, hardware and common operating systems through configuration and enhancement of a computer; configuration of hardware and software to optimize computer performance; including memory configuration and the identification and troubleshooting of configuration problems; installing and configuring microcomputer software; with emphasis placed on the installation, configuration, upgrade, and related problem resolution of microcomputer operating system and applications software. Learners will discover the advantages of this operating system by learning how to customize the Desktop and utilize the programs that come with Windows 7; set up applications for easier access and install software; learn to search for and manage files and folders and how to take advantage of the communication and multimedia systems available through Windows 7 and the Internet. This course will introduce learners to everything needed to know about supporting Windows 7 clients once the machines have been deployed and configured in an enterprise environment. The course is specifically designed to teach how to analyze the environment and select the best means possible of deploying Windows 7. Lessons consist of instruction in the installation, configuration, administration, and troubleshooting of networked client operating systems in a data communications environment. This course can utilize any mixture of available networked client operating systems.

Required Materials: Recommended Learning	Supplementary Materials: Lecture notes and tutor
Resources.	extra reading recommendations.

Special Requirements: The course requires a combination of lectures, demonstrations, discussions, and hands-on labs.

hands-on labs.				
Intended Learning Outcomes:	Asses	Assessment Criteria:		
1. Understand the installation and	1.1	Be able to identify key features of Windows		
configuration of Windows 7	1.2	Outline the different editions of Windows 7		
	1.3	Analyse the minimum hardware requirements		
	1.4	Review the features of 64-bit computing		
	1.5	Identify the different options for installing Windows 7		
	1.6	Analyse the modular architecture of Windows 7		
	1.7	Outline Windows Pre-installation Environment and System image configuration		
	2.1	Be able to partition disks in windows		
	2.2	Be able to manage disk volumes		
	2.3	Be able to install and configure device drivers		
2. Understand how to configure disks and	2.4	Be able to troubleshoot hardware issues		
device drivers	2.5	Be able to troubleshoot Windows 7 Startup problems		
	3.1	Outline authentication and authorisation		
	3.2	Analyse Windows 7 File Access Control		
	3.3	Be able to manage NTFS permissions		
	3.4	Be able to configure and troubleshoot		
3. Understand sharing of resources, file		Windows print architecture		
access and printer configuration	3.5	Outline the differences between		
		Workgroup and Domain		
	3.6	Analyse the implementation of Windows		

	1	7 Offline files
		/ Offline files
	4.1	Be able to configure IPv4 and IPv6 networks
	4.2	Be able to implement Automatic IP Address Allocation (APIPA)
4. Understand network configuration and	4.3	Analyse network connectivity process
connectivity parameters	4.4	Be able to resolve IP connectivity issues
	4.5	Demonstrate TCP/IP troubleshooting tools
	5.1	Outline the overview of wireless networks
	5.2	Be able to configure wireless network
	5.3	Be able to configure mobile computer
5. Understand wireless network	5.4	device settings
connections configuration process	3.4	Be able to configure Remote Desktop and Remote Assistance for Remote Access
	5.5	Be able to configure DirectAccess and BranchCache for Remote Access
	5.6	Analyse wireless network security
	6.1	Analyse key security features in Windows 7
	6.2	Be able to secure client computers using
		Group Policy
6. Overview of Windows 7 Security Management	6.3	Be able to use EFS and BitLocker to secure data
Wanagement	6.4	Be able to configure application
		restrictions and User Account Control
	6.5	Analyse Windows 7 password and
	6.6	account lockout policies Analyse authentication methods
	6.7	Be able to troubleshoot software and
		resolve security issues
	6.8	Be able to configure Windows Firewall
	7.1	Summarise Windows Firewall Advanced Security
	7.2	Explain Windows Explorer Security
		features
7. Understand network security	7.3	Be able to troubleshoot Internet Explorer
configuration settings	7.4	Be able to configure application restrictions
	7.5	Be able to configure Windows Updates
	8.1	Be able to use the Performance Tools
	0.2	used to maintain performance
	8.2	Be able to use the Windows 7 Diagnostic
8. Understand the tools for maintaining and	8.3	tools to maintain reliability Be able to backup and restore data
optimising Windows 7 client computers	8.4	Be able to troubleshoot performance
	8.5	issues Be able to monitor and manage Windows
	8.6	Performance Explain Superfetch ReadyDrive and
	0.0	Explain Superfetch, ReadyDrive and ReadyBoost technologies
	8.7	Outline Windows 7 recovery tools

Recommended Learning Resources: Windows Client Networking – Windows 7

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Text Books	Windows 7 Configuration with Lab Manual Set (Microsoft Official Academic Course Series). ISBN-10: 047089122X
	Windows 7 Enterprise Desktop Support Technician Revised and Expanded
	Version with Lab Manual Set. ISBN-10: 1118152565
Study Manuals	
	BCE produced study packs
CD ROM	Power-point slides
Software	Windows 7 Client Operating System