



Level 4 Certificate in Networking (107) 129 Credits






Unit: Windows Client Networking	Guided Learning Hours: 220
Exam Paper No.: 2	Number of Credits: 22
Prerequisites: Basic knowledge in the use of Microsoft Windows Applications.	Corequisites: A pass or higher in Diploma in Information Technology or equivalence
<p>Aim: This unit 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 optimise computer performance; including memory configuration, the identification and troubleshooting of configuration problems; installing and configuring microcomputer software; with emphasis placed on the installation, system diagnostic, 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 customise the Desktop and utilise the programs that come with Windows client operating system; 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 and the Internet. This unit will introduce learners to everything needed to know about supporting Windows clients once the machines have been deployed and configured in an enterprise environment. The unit is specifically designed to teach how to analyze the environment and select the best means possible for deploying Windows client operating system. Lessons consist of instruction in the installation, configuration, administration, and troubleshooting of networked client operating systems in a data communications environment.</p>	
Required Materials: Recommended Learning Resources.	Supplementary Materials: Lecture notes and tutor extra reading recommendations.
<p>Special Requirements: The unit requires a combination of lectures, demonstrations, discussions, and hands-on labs.</p>	
<p>Intended Learning Outcomes:</p> <ol style="list-style-type: none"> The installation; navigating and getting to Windows Client Network configuration. How to how to configure disks, partitions, and device drivers to optimize client computers running Windows Client. 	<p>Assessment Criteria:</p> <ol style="list-style-type: none"> Identify key features of Windows Client Explain the different editions of Windows Client Analyse the minimum hardware requirements Describe the features of 64-bit computing Identify the different options for installing Windows Client Analyse the modular architecture of Windows Client Analyse Windows Pre-installation Environment and System image configuration Describe how to get to Windows Client Network configuration Demonstrate how to partition disks in windows Demonstrate how to manage disk volumes Demonstrate how to install and configure device drivers Demonstrate how to troubleshoot hardware issues Demonstrate how to troubleshoot

	Windows Client Startup problems
3. Sharing of resources, file access, printer configuration, setting up file and printer sharing.	3.1 Compare and contrast authentication and authorisation 3.2 Analyse Windows Client File Access Control 3.3 Demonstrate how to manage NTFS permissions 3.4 Demonstrate how to configure and troubleshoot Windows print architecture 3.5 Explain the differences between Workgroup and Domain 3.6 Analyse the implementation of Windows 7 Offline files
4. Network configuration and connectivity parameters; including the IP address, the connection speed, the amount of data that has been sent and received.	4.1 Demonstrate how to configure IPv4 and IPv6 networks 4.2 Demonstrate how to implement Automatic IP Address Allocation (APIPA) 4.3 Analyse network connectivity process 4.4 Demonstrate how to resolve IP connectivity issues 4.5 Demonstrate TCP/IP troubleshooting tools
5. Wireless network connections configuration process and how to troubleshoot 802.11b wireless network connection issues.	5.1 Describe the overview of wireless networks 5.2 Describe how to configure wireless network 5.3 Demonstrate how to configure mobile computer device settings 5.4 Demonstrate how to configure Remote Desktop and Remote Assistance for Remote Access 5.5 Demonstrate how to configure DirectAccess and BranchCache for Remote Access 5.6 Analyse wireless network security
6. Overview of Windows Client Security Management; helping to protect the system from hackers, spyware, viruses, and other malicious software.	6.1 Analyse key security features in Windows Client 6.2 Demonstrate how to secure client computers using Group Policy 6.3 Demonstrate how to use EFS and BitLocker to secure data 6.4 Demonstrate how to configure application restrictions and User Account Control 6.5 Analyse Windows Client password and account lockout policies 6.6 Analyse authentication methods 6.7 Demonstrate how to troubleshoot software and resolve security issues 6.8 Demonstrate how to configure Windows Firewall
7. Network security configuration settings and the requirements checklist for hardware, software, communication, and access privileges.	7.1 Analyse Windows Firewall Advanced Security 7.2 Explain Windows Explorer Security

8. Administrative tools for maintaining and optimising Windows Client client computers.	7.3	features Describe how to troubleshoot a web browser
	7.4	Demonstrate how to configure application restrictions
	7.5	Demonstrate how to configure Windows Updates
	8.1	Demonstrate how to use the Performance Tools used to maintain performance
	8.2	Demonstrate how to use the Windows Client Diagnostic tools to maintain reliability
	8.3	Demonstrate how to backup and restore data
	8.4	Demonstrate how to troubleshoot performance issues
	8.5	Demonstrate how to monitor and manage Windows Performance
	8.6	Explain Superfetch, ReadyDrive and ReadyBoost technologies
8.7	Outline Windows Client recovery tools	
<p>Methods of Evaluation: A 2-hour written examination paper with Section A and Section B. Section A has 40 multiple choice questions. Section B has three essay questions, each carrying 20 marks. Candidates are required to answer all questions. Candidates also undertake project/coursework in Windows Client Networking with a weighting of 100%.</p>		

Recommended Learning Resources: Windows Client Networking

Text Books	<ul style="list-style-type: none"> • Windows Client Configuration with Lab Manual Set (Microsoft Official Academic Course Series). ISBN-10: 047089122X • Windows Client Enterprise Desktop Support Technician Revised and Expanded Version with Lab Manual Set. ISBN-10: 1118152565 • Windows 11 by Noble Powell. ISBN-13 : 979-8756336689
Study Manuals 	BCE produced study packs
CD ROM 	Power-point slides
Software 	Latest Windows Client Operating System