LONDON CAPITAL COMPUTER COLLEGE

Certificate in Networking (107) – Windows Server 2008 Administration & Implementation

Prerequisites: Knowledge of Windows operating system.	Corequisites: A pass or higher in Diploma in Information Technology or equivalence

Aim: This course will train, prepare and provide learners with the Windows Server 2008 Server Administration skills. A server administrator is responsible for the operations and day-to-day management of a network infrastructure. Becoming certified demonstrates to customers, peers, and employers that one is committed to advancing skills and taking on greater challenges. This course will focus on the 2008 server and the network environment. IP addressing, network services, remote access, name resolution, file and print services will also be covered. The course will take learners through clean installations and upgrades in a Windows Sever 2008 environment; learn the use of BitLocker, and other installation processes and deployment options. Work with DHCP, DNS and Active Directory, Hyper-V and Terminal Services and set up security services and NPAS. Learners will be taken through the process of setting up enterprise server solutions usingIPv4 or IPv6; building Active Directory objects; Domain Controller Roles; replication issues; learning about new methods of application deployment throughout the enterprise including Certificates services and using MSI packages; and learning how to provide IIS and Hyper-V services along with other virtualization options. This course provide the learners with the knowledge and skills necessary to perform day-to-day administrative tasks in a single or multiple domain Microsoft Windows based network through grasping how to implement system security, create users, establish network printing, backup system data, and manage system resources. It provide learners with the opportunity to develop the knowledge and skills required to implement, administer, configure, customize, optimize, manage and maintain a Microsoft Windows Server.

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 the key features of the Windows Server 2008 Edition versions	1.1 Analyse Windows Server 2008 versions 1.2 Identify client system to be used with Server 2008 1.3 Identify Windows Server 2008 networking models 1.4 Be able to implement network protocols used by Windows Server 2008 1.5 Analyse Windows Server 2008 virtualisation tools, web resources and security enhancements
2. Understand the installation of Windows Server 2008	2.1 Illustrate the different installation methods 2.2 Be able to set up and activate Windows Server 2008 2.3 Be able to install and configure Windows Deployment Services 2.4 Be able to install service packs 2.5 Be able to troubleshoot installation problems 2.6 Be able to unistall Windows Server 2008
3. Understand the Windows Server 2008 Environment	3.1 Be able to use Server Manager and ServerManagerCmd.exe 3.2 Be able to install and remove server roles 3.3 Illustrate configuration of server

		hardware and the operating system
	3.4	Be able to configure the Registry
	3.5	Be able to use the Security Configuration Wizard
	3.6	Be able to install and use Windows Powershell
	3.7	Be able to create and manage scheduled tasks
4. Understand Active Directory concepts and Account Management configuration	4.1	Be able to install and configure Active Directory
	4.2	Be able to create and manage user, group and computer accounts
	4.3	Be able to configure and use security groups
	4.4	Illustrate and implement new Active Directory features
	4.5	Be able to manage folder and file security in Active Directory
	4.6	Illustrate configuration and management of resource access
5. Understand DNS in Windows Server 2008.	5.1	Outline the functions of DNS
	5.2	Describe DNS terminology
	5.3	Be able to configure DNS clients
	5.4	Be able to install a standard DNS server
	5.5	Be able to create standard DNS zones
6. Understand how Windows Server 2008 printing works	6.1	Be able to use XPS Print Path
	6.2	Be able to use XML Paper Specifications
	6.3	Be able to install Print Services role
	6.4	Illustrate print properties configuration
	6.5	Be able to install local and shared printers
	6.6	Be able to configure internet printer
	6.7	Be able to manage print jobs and use the print management tool
	6.8	Be able to troubleshoot common printing problems
7. Understand data storage configuration and management	7.1	Outline Windows Server 2008 storage options
	7.2	Be able to use the Disk Management tool
	7.3	Illustrate and configure RAID disk storage fault tolerance
	7.4	Analyse Windows Server 2008 storage enhancements
	7.5	Analyse data storage and backup devices
	7.6	Be able to develop a data backup backup and recovery strategy
8. Understand Windows Server 2008 network services	8.1	Evaluate IPv6 concepts and issues
	8.2	Be able to install, configure and troubleshoot DNS
	8.3	Be able to install, configure and troubleshoot WINS
	8.4	Be able to install, configure and troubleshoot DHCP
9. Understand the deployment of Internet Information Services (IIS) and Active Directory Certificate Services	9.1	Analyse IIS features, roles and capabilities
	9.2	Analyse Active Directory Certificate Services identity and access control

		security technology
	9.3	Be able to install, configure and troubleshoot Microsoft Internet Information Services
	9.4	Be able to install, configure and troubleshoot Active Directory Certificate Services
10. Understand Remote Access implementation and configuration	10.1	Outline Windows Server 2008 remote access services
	10.2	Be able to implement, configure and manage a Virtual Private Network (VPN)
	10.3	Be able to configure a dial-up remote access server
	10.4	Be able to install and configure Terminal Services
11. Understand Windows Server 2008 virtualisation concepts and configuration	11.1	Describe virtualisation technology
	11.2	Analyse the features and requirements of Microsoft Hyper-V
	11.3	Be able to install Hyper-V on Windows server
	11.4	Be able to install use Hyper-V Manager to configure and manage virtual machines
12. Understand Windows Server 2008 Application Server functionalities	12.1	Analyse the roles of Application Servers
	12.2	Be able to configure offline data access
	12.3	Describe System Centre Configuration Manager
	12.4	Describe Windows Server Update Services
	12.5	Be able to install and use Windows System Resource Manager
	12.6	Illustrate using a network load balancing cluster
13. Understand Windows Server 2008 Security compliance essentials.	13.1	Identify Windows Server 2008 security enhancements
	13.2	Analyse Windows Server 2008 Group Policy
	13.3	Be able to configure security policies
	13.4	Be able to implement Active Directory Rights Management Services
	13.5	Summarise Security Templates and Security Configuration
	13.6	Be able to use *cipher* command and BitLocker Drive encryption
	13.7	Be able to configure NAT
	13.8	Be able to configure Windows Firewall
	13.9	Be able to implement Network Access Protection
14. Understand the importance of server and network monitoring	14.1	Analyse Windows Server 2008 services
	14.2	Be able to use Task Manager for server monitoring
	14.3	Be able to configure and use performance monitor
	14.4	Be able to set up and use Data Collector Sets
	14.5	Be able to use Reliability Monitor
	14.6	Analyse the implementation of SNMP

		service
15. Understand system reliability and availability strategies	15.1	Analyse the importance of effective troubleshooting strategies
	15.2	Be able to resolve boot-up problems
	15.3	Illustrate Emergency Management Services
	15.4	Be able to restore server roles, Active Directory and GPOs
	15.5	Be able to configure shadow copies
	15.6	Outline failover clustering
	15.7	Be able to use and configure Event Viewer
	15.8	Be able to troubleshoot network connectivity
	15.9	Be able to remotely administer servers using Remote Server Administration tools.

Recommended Learning Resources:
Windows Server 2008 Administration & Implementation

Text Books	• Windows Server 2008 Administrator Lab Manual. ISBN-10: 0470225106 • Mastering Microsoft Windows Server 2008 R2 by Mark Minasi, Darril Gibson, Aidan Finn, Wendy Henry and Byron Hynes. ISBN-10: 0470532866 • Microsoft Windows Server 2008 R2 Administration Instant Reference by Matthew Hester and Chris Henley. ISBN-10: 0470525398
Study Manuals	BCE produced study packs
CD ROM	Power-point slides
Software	Windows Server 2008