



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



Unit: Windows Exchange Server	Guided Learning Hours: 300
Exam Paper No.: 5	Number of Credits: 30
Prerequisites: Knowledge of Windows operating system.	Corequisites: A pass or higher in Certificate in Networking or equivalence.
<p>Aim: There are two main reasons for the unit. Firstly, to support the large numbers of customers running Exchange in upgrading their skills. Secondly, to fill in a skills gap that currently exists in the industry. Exchange is a popular Microsoft messaging system that includes a mail server, an e-mail program (e-mail client), and groupware applications. Designed for use in a business setting, the Exchange server is often used in conjunction with Microsoft Outlook to take advantage of Outlook's collaborative features, such as the ability to share calendars and contact lists. The unit provide learners with the knowledge and skills necessary to install and configure Microsoft Exchange. It prepare learners with skills needed to deploy and manage Exchange. It will assist learners in operating in medium to large computing environments that typically have multiple physical locations, mixed client connection protocols, and Internet messaging connectivity. On completion of the unit, learners will be able to: describe the new Exchange Server features; install and deploy Exchange Server in an Exchange Server organisation; configure Mailbox servers and Mailbox server components; manage recipient objects, including migrating recipients from previous versions of Exchange Server to Exchange Server; migrate client access services from previous versions of Exchange Server, and configure the Client Access server role in Exchange Server; configure the secure flow of messages between the Exchange Server organisation and the internet; implement a high availability solution for Mailbox servers and other server roles in Exchange Server; plan and implement a disaster recovery solution for Exchange Server servers; plan and configure messaging compliance; configure Exchange Server security; monitor and maintain the messaging system. Fundamental knowledge of network technologies including Domain Name System (DNS) and firewall technologies is important.</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"> Exchange Server as a reliable messaging platform that reduces costs, increases productivity, and improve communications. How Exchange Server uses a transaction-based storage architecture that includes a database file, a native content file and transaction logs. Exchange Message Routing Architecture 	<p>Assessment Criteria:</p> <ol style="list-style-type: none"> Describe Exchange Server versions Describe Exchange Server organisation Describe Exchange Server storage architecture Describe Exchange Server services Explain Exchange Server Active Directory requirements Define Simple Mail Transport Protocol (SMTP) Identify instant communication services Use Microsoft Management console Describe Exchange server database structure Explain storage groups Identify database files Examine public folder storage Analyse public folder security Describe client access protocols Describe index building Define front-end/back-end servers Define Exchange routing groups

message transport operates and key features of how Exchange routes messages to their correct destination.	3.2 Explain routing message flow
	3.3 Describe how queuing engine routes messages
	3.4 Describe routing groups
	3.5 Explain how messages are routed to other email systems
	3.6 Describe routing group topologies
	3.7 Describe link state protocols
	3.8 Describe causes of link failures
4. Exchange Server and its relationship to Active Directory; how Microsoft Active Directory uses the Schema to represent the classes, attributes and objects.	4.1 Identify Active Directory integration advantages
	4.2 Explain Exchange Directory objects
	4.3 Analyse Exchange Server mail distribution lists
	4.4 Define Exchange Server expansion servers
	4.5 Analyse Exchange Server address lists
	4.6 Outline DNS configuration
5. Exchange Server installation requirements; how to perform an installation of Exchange Server and verify recipients.	5.1 Identify Exchange Server hardware requirements
	5.2 Explain Exchange Server installation process
	5.3 Describe how to upgrade from previous versions
	5.4 Describe the Exchange Server features for management interface, capabilities, benefits install the server roles, high availability and management
	5.5 Explain console structure
	5.6 Describe management snap-ins
	5.7 Describe how to create custom consoles
	5.8 Explain Exchange organisational hierarchy
	5.9 Describe Global settings container
	5.10 Explain system policies container
	5.11 How to manage addressing and recipient objects such as mailboxes, address policies and address lists
	5.12 Describe recipient object types
	5.13 Demonstrate how to create mailbox enabled users
	5.14 Identify group issues
	5.15 Demonstrate how to search for recipients
	5.16 Demonstrate how to configure recipient policies
6. How to manage public folders, configuring Public Folders and using administrative tools.	6.1 Describe public folder management
	6.2 Demonstrate how to create a public folder from Outlook
	6.3 Describe public folder administration utility
	6.4 Demonstrate how to manage public folders through Exchange System Manager
	6.5 Explain public folder security features
	6.6 Describe common Active Directory public folder issues
	6.7 Describe public folder replication

<p>7. How the Administrative Groups container allows the creation of multiple administrative groups; Exchange routing group topology options; and configuring Routing Group connectors to connect routing groups in Exchange Server.</p> <p>8. Using Exchange Management Shell PowerShell technology providing a powerful command-line interface to configure routing group; installing chat service in Exchange server providing groupware (email, contact, email), chat and ISC Exchange Email Service.</p> <p>9. Anti-virus and email security software for Microsoft Exchange Server that protects against email viruses, exploits and Trojans; foreign mail systems, using X.400 to connect Exchange to foreign mail system.</p>	<p>6.8 Set the recommended storage group; database configuration for Exchange mailbox servers and multiple storage groups</p> <p>6.9 Describe the need for storage groups</p> <p>6.10 Describe the different types of storage group files</p> <p>6.11 Demonstrate how to create a mailbox store</p> <p>6.12 Demonstrate how to create a public folder store</p> <p>6.13 Describe how to move or delete a store</p> <p>7.1 Analyse the Administrative tool</p> <p>7.2 Explain Administrative Group policies</p> <p>7.3 Identify Administrative Group containers</p> <p>7.4 Describe policy conflicts</p> <p>7.5 Explain routing group concepts</p> <p>7.6 Demonstrate how to create a routing group</p> <p>7.7 Describe routing group connectors</p> <p>7.8 Describe how to track message paths</p> <p>8.1 Describe Outlook features</p> <p>8.2 Describe Outlook service options</p> <p>8.3 Explain Outlook profiles</p> <p>8.4 Demonstrate how to use support offline Outlook feature</p> <p>8.5 Describe synchronisation</p> <p>8.6 Describe Outlook Express protocols</p> <p>8.7 Identify and outline Exchange Server internet protocols</p> <p>8.8 Describe chat service features</p> <p>8.9 Demonstrate how to control connections to communities</p> <p>8.10 Demonstrate how to create channels</p> <p>8.11 Analyse and interpret performance monitor counters</p> <p>8.12 Demonstrate how to configure chat settings</p> <p>8.13 How Exchange Server and Microsoft Outlook Web App deliver a rich, access email, voicemail, instant messages, and SMS text messages</p> <p>8.14 Describe instant messaging architecture</p> <p>8.15 Outline client logon process</p> <p>8.16 Demonstrate how to install instant messaging</p> <p>8.17 Outline firewall topology settings</p> <p>9.1 Describe ways of protecting information</p> <p>9.2 Describe Public Key Infrastructure (PKI) concepts</p> <p>9.3 Explain Windows PKI services and security protocols</p> <p>9.4 Describe Certificate Authority (CA) models</p> <p>9.5 Demonstrate how to revoke certificates</p> <p>9.6 Describe Exchange Key Management</p>
---	---

<p>10. Monitoring Exchange servers demonstrate how to automating online maintenance tasks; configuring the legacy namespace and SSL requirements for co-existence between different Exchange Servers.</p>	<p>Service (KMS)</p> <p>9.7 Outline Foreign Mail Systems</p> <p>9.8 Demonstrate how to create X.400 connector</p> <p>9.9 Demonstrate how to configure MS-Mail connector</p> <p>9.10 Describe cc:Mail concepts</p> <p>10.1 Demonstrate how to setup diagnostic logging</p> <p>10.2 Explain event viewer utility</p> <p>10.3 Describe Exchange Server performance and scalability counters</p> <p>10.4 Demonstrate how to backup Exchange Server information</p> <p>10.5 Describe backup strategies</p> <p>10.6 Demonstrate how to restore Exchange Server database</p> <p>10.7 Describe Exchange Server troubleshooting tools</p> <p>10.8 Define mixed-mode configuration</p> <p>10.9 Describe Exchange site replication service</p> <p>10.10 Describe Windows and Exchange Server services</p> <p>10.11 Define and describe co-existence issues</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 Exchange Server with a weighting of 100%.</p>	

Recommended Learning Resources: Windows Exchange Server

<p>Text Books</p>	<ul style="list-style-type: none"> • Exchange - A Practical Approach by Jaap Wesselius ISBN-10: 1906434328 • Microsoft Exchange Server Best Practices by Siegfried Jagott and Joel Stidley ISBN-10: 0735627193 • Microsoft Exchange Server Inside Out by Tony Redmond ISBN-10: 0735640610
<p>Study Manuals</p> 	<p>BCE produced study packs</p>
<p>CD ROM</p> 	<p>Power-point slides</p>
<p>Software</p> 	<p>Windows Exchange Server</p>