

Syllabus of B.Sc. (NT) – Third Year

S5.1

Exchange Server 2010 - Part I

(80 Marks)

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| 1. Installing Exchange Server 2010 | 6Hrs. |
| 1.1 Configure the Environment for Exchange Server 2010 | |
| 1.2 Preparing a New Environment for Exchange 2010 | |
| 1.3 Preparing for Coexistence and Migration | |
| 1.4 Configure the Server to Host | |
| 1.5 Exchange Server 2010 | |
| 1.6 Hardware and Software Requirements | |
| 1.7 Preparing a Host for the Installation of Exchange Server2010 | |
| 1.8 Configuring Server Roles and Features for Exchange | |
| 1.9 Deploy Exchange Server 2010 Roles | |
| 1.10 Installing Exchange Server 2010 | |
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| 2. Exchange Databases and Address Lists | 6Hrs. |
| 2.1 Deploying Exchange Databases | |
| 2.2 Configuring Exchange Databases | |
| 2.3 Managing Mailbox Databases | |
| 2.4 Managing Public Folder Databases | |
| 2.5 Address List Configuration | |
| 2.6 Creating and Configuring an Address List | |
| 2.7 Working with Offline Address Books | |
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| 3. Exchange Mailboxes | 8Hrs. |
| 3.1 Mailbox Configuration | |
| 3.2 Creating Mailboxes | |
| 3.3 Linked Mailboxes | |
| 3.4 Configuring Mailbox Properties | |
| 3.5 Moving Mailboxes | |
| 3.6 Disabling, Removing, and Reconnecting | |
| 3.7 Mailboxes | |
| 3.8 Import and Export Mailboxes | |
| 3.9 Archive Mailboxes | |
| 3.10 Resources and Shared Mailboxes | |
| 3.11 Creating and Configuring Resource Mailboxes | |
| 3.12 Shared Mailboxes | |
| 3.13 Converting Mailboxes | |
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| 4. Distribution Groups and Public Folders | 6Hrs. |
| 4.1 Managing Recipients and Distribution Groups | |
| 4.2 Mail Contacts | |
| 4.3 Mail-Enabled Users | |
| 4.4 Distribution Groups | |

- 4.5 Setting Up Public Folders
- 4.6 Creating Public Folders
- 4.7 Configuring Public Folder Permissions
- 4.8 Mail-Enable Public Folder
- 4.9 Configuring Public Folder Limits

5. Configuring Client Access

7Hrs.

- 5.1 IMAP, POP, and Microsoft ActiveSync
- 5.2 Client Access Server Certificates
- 5.3 Assigning an External Name
- 5.4 Configure POP and IMAP
- 5.5 Autodiscover
- 5.6 ActiveSync
- 5.7 Outlook Anywhere and RPC Clients
- 5.8 Outlook Anywhere
- 5.9 Configure RPC Client Access
- 5.10 Configure Client Access Array
- 5.11 Client Throttling Policies
- 5.12 OWA
- 5.13 Configure File Access and WebReady Document Viewing
- 5.14 Segmentation Settings
- 5.15 OWA Virtual Directory Properties
- 5.16 Exchange Control Panel

6. Federated Sharing and Role Based Access Control

4Hrs.

- 6.1 Role Based Access Control
- 6.2 Implementing RBAC
- 6.3 Using Management Role Groups
- 6.4 Configuring Federated Sharing
- 6.5 Implementing Federated Sharing
- 6.6 Assigning the Federated Sharing Role

Reference books:

1. MCTS Self-Paced Training Kit (Exam 70-662): Configuring Microsoft Exchange Server 2010 Pro Certification

Syllabus of B.Sc. (NT) – Third Year

S5.2

WINDOWS SERVER 2008 ACTIVE DIRECTORY CONFIGURATION (Part-I) (80 Marks)

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|---|-------------|
| 1. INSTALLATION | 7Hrs |
| 1.1 Installing Active Directory Domains Services | |
| 1.2 Active Directory Domain Service on Server Core | |
| 2. ADMINISTRATION | 8Hrs |
| 2.1 Working with Active Directory Snap-ins | |
| 2.2 Creating Objects in Active Directory | |
| 2.3 Delegation and Security of Active Directory Objects | |
| 3. USERS | 8Hrs |
| 3.1 Automating the Creation of User Accounts | |
| 3.2 Creating Users with Windows Power Shell and VBScript | |
| 3.3 Supporting User Objects and Accounts | |
| 4. GROUPS | 6Hrs |
| 4.1 Creating and Managing Groups | |
| 4.2 Automating the Creation and Management of Groups | |
| 4.3 Administering Groups in an Enterprise | |
| 5. COMPUTERS | 4Hrs |
| 5.1 Creating Computers and Joining the Domain | |
| 5.2 Automating the Creation of Computer Objects | |
| 5.3 Supporting Computers Objects and Accounts | |
| 6. GROUP POLICY INFRASTRUCTURE | 8Hrs |
| 6.1 Implementing Group Policy | |
| 6.2 Managing Group Policy Scope | |
| 6.3 Supporting Group Policy | |
| 7. GROUP POLICY SETTINGS | 7Hrs |
| 7.1 Delegating the Support of Computers | |
| 7.2 Managing Security Settings | |
| 7.3 Managing Software with Group Policy Software Installation | |
| 7.4 Auditing | |

Reference Books :

- 1) MCTS Self-Paced Training Kit (Exam 70-640): Configuring Windows Server 2008 Active Directory:-
 - By [Nelson Ruest, and Danielle Ruest Dan Holme](#) (Microsoft press)

- 2) Windows Server 2008 Active Directory Resource Kit
 - By [Stan Riemer](#), [Conan Kezema](#) , [Mike Mulcare](#) , [Byron Wright](#) (Microsoft press)
- 3) Mastering Active Directory for Windows Server 2008
 - By [John A. Price](#) , [Brad Price](#) , [Scott Fenstermacher](#) (sybex press)
- 4) MCTS: Windows Server 2008 Active Directory Configuration Study Guide: Exam 70-640
 - By [William Panek](#) , [James Chellis](#) (Sybex press)

Syllabus of B.Sc. (NT) – Third Year

S5.3

Windows Server 2008 Network Infrastructure Configuration

(80 Marks)

- | | |
|--|-------------|
| 1. Connecting to network | 7Hrs |
| 1.1 Configuring network address translation | |
| 1.2 Configuring Wireless Networks | |
| 1.3 Connecting to remote networks | |
| 2. Configuring Windows Firewall and Network Access Protection | 6Hrs |
| 2.1 Configuring Windows Firewall | |
| 2.2 Configuring Network access protection | |
| 3. Managing Software updates | 6Hrs |
| 3.1 Understanding windows server update services | |
| 3.2 Using windows server update services | |
| 4. Monitoring Computers | 6Hrs |
| 4.1 Monitoring Event Logs | |
| 4.2 Monitoring Performance and reliability | |
| 4.3 Using Network Monitor | |
| 5. Managing Files | 6Hrs |
| 5.1 Managing File security | |
| 5.2 Sharing Folders | |
| 5.3 Shadow Copies | |
| 6. Managing Printers | 3Hrs |
| 6.1 Managing Printers | |

Reference Books:

- 1) MCTS Self-Paced Training Kit (Exam 70-642): **Configuring Windows Server 2008 Network Infrastructure**
- By [Tony Northrup](#) , [JC Mackin](#) (Microsoft press)
- 2) MCTS: **Windows Server 2008 Network Infrastructure Configuration Study Guide:** Exam 70-642
- By [William Panek](#), [Tylor Wentworth](#) , [James Chellis](#) Sybex Press

Syllabus of B.Sc. (NT) - Third Year
S6.5

Exchange Server 2010 - Part II

(80 Marks)

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|---|---|--------------|
| 1. Configuring Transport Servers | | 6Hrs. |
| 1.1 | Hub Transport Servers | |
| 1.2 | Accepted Domains | |
| 1.3 | Remote Domains | |
| 1.4 | Email Address Policies | |
| 1.5 | Transport Settings and Transport | |
| 1.6 | Dumpster | |
| 1.7 | Edge Transport Servers | |
| 1.8 | Edge Transport Role | |
| 1.9 | EdgeSync | |
| 1.10 | Clone Edge Transport Server | |
| 1.11 | Address Rewriting | |
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| 2. Monitoring Exchange Server 2010 | | 5Hrs. |
| 2.1 | Monitoring Exchange Database Information and Statistics | |
| 2.2 | Monitoring DAGs | |
| 2.3 | Monitoring Mail Flow | |
| 2.4 | Configuring Message Tracking | |
| 2.5 | Monitoring Transport Queues | |
| 2.6 | Suspending, Resuming, and Retrying Queues | |
| 2.7 | Managing Messages | |
| 2.8 | Monitoring Exchange Connectivity | |
| 2.9 | Debugging Network Connectivity | |
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| 3. Logging and Reports | | 8Hrs. |
| 3.1 | Generating Reports | |
| 3.2 | Generating Mailbox Statistics Reports | |
| 3.3 | Reporting Mailbox Folder Statistics | |
| 3.4 | Testing Mail Flow | |
| 3.5 | Reporting Logon Statistics | |
| 3.6 | Creating Reports on Number of Users | |
| 3.7 | of a Particular Protocol | |
| 3.8 | Using Exchange Server Performance Monitor | |
| 3.9 | Using the Microsoft Exchange Best Practices | |
| 3.10 | Analyzer (ExBPA) to Create Reports | |
| 3.11 | Obtaining Exchange ActiveSync Reports | |
| 3.12 | Managing Logging | |
| 3.13 | Managing Connectivity Logging | |
| 3.14 | Managing Protocol Logging | |
| 3.15 | Managing Agent Logging | |
| 3.16 | Managing Exchange Store Logging | |

- 3.17 Managing Administrator Audit Logging
- 3.18 Managing Routing Table Logging
- 3.19 Specifying Diagnostic Logging Levels
- 3.20 Managing Message Tracking

4. Managing Records and Compliance

6Hrs.

- 4.1 Managing Records
- 4.2 Using MRM
- 4.3 Configuring Retention Tags and
- 4.4 Retention Policies
- 4.5 Administrating Managed Folders
- 4.6 Implementing Compliance
- 4.7 Configuring IRM
- 4.8 Configuring Journaling
- 4.9 Using MailTips
- 4.10 Implementing a Discovery Search
- 4.11 Placing a Mailbox on Legal Hold
- 4.12 Creating and Configuring Ethical Walls

5. Message Integrity, Antivirus and Anti-Spam

7Hrs.

- 5.1 Ensuring Message Integrity
- 5.2 Using S/MIME Extensions
- 5.3 Using TLS and MTLS
- 5.4 Implementing Domain Security
- 5.5 Configuring Permissions on Active
- 5.6 Directory Objects
- 5.7 Rights Management Services Federation
- 5.8 Creating Transport Rules
- 5.9 Managing Anti-Spam and Antivirus
- 5.10 Countermeasures
- 5.11 Configuring Anti-Spam Features
- 5.12 Configuring Antivirus Features
- 5.13 Implementing File-Level Antivirus Scanning

6. Exchange High-Availability Solutions

8Hrs.

- 6.1 Managing Database Availability Groups
- 6.2 DAGs
- 6.3 Create DAGs
- 6.4 Add and Remove Servers from DAGs
- 6.5 Mailbox Database Copies
- 6.6 Highly Available Public Folders
- 6.7 Public Folder Replicas
- 6.8 Replication Schedules
- 6.9 Public Folder Backup and Restore
- 6.10 High Availability for Other Exchange Roles
- 6.11 Configuring Network Load Balancing

6.12 Client Access Arrays

6.13 Transport Server High Availability

Reference books:

2. MCTS Self-Paced Training Kit (Exam 70-662): Configuring Microsoft Exchange Server 2010 Pro Certification

Syllabus of B.Sc. (NT) – Third Year

S6.6

WINDOWS SERVER 2008 ACTIVE DIRECTORY CONFIGURATION (Part-II) (80 Marks)

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| 1. DOMAIN CONTROLLERS | 8Hrs |
| 1.1 Installing Domain Controllers | |
| 1.2 Configuring Operations Masters | |
| 1.3 Configuring DFS Replication of SYSVOL | |
| 2. SITES AND REPLICATION | 7Hrs |
| 2.1 Configuring Sites and Subnets | |
| 2.2 Configuring the Global Catalog and Application Directory Partitions | |
| 2.3 Configuring Replication | |
| 3. DOMAINS AND FORESTS | 8Hrs |
| 3.1 Understanding Domain and Forest Functional Levels | |
| 3.2 Managing Multiple Domains and Trust Relationship | |
| 4. DIRECTORY BUSINESS CONTINUITY | 7Hrs |
| 4.1 Proactive Directory Maintenance and Data Store Protection | |
| 4.2 Proactive Directory Performance Management | |
| 5. ACTIVE DIRECTORY LIGHTWEIGHT DIRECTORY SERVICES | 6Hrs |
| 5.1 Understanding and Installing AD LDS | |
| 5.2 Configuring and using AD LDS | |
| 6. ACTIVE DIRECTORY CERTIFICATE SERVICES AND PUBLIC KEY INFRASTRUCTURES | 6Hrs |
| 6.1 Understanding and Installing Active Directory Certificate Services | |
| 6.2 Configuring and Using Active Directory Certificate Services | |
| 7. ACTIVE DIRECTORY RIGHTS MANAGEMENT SERVICES | 5Hrs |
| 7.1 Understanding and Installing Active Directory Rights management Services | |
| 7.2 Configuring and Using Active Directory Rights Management Services | |

Reference Book:

- 1) MCTS Self-Paced Training Kit (Exam 70-640): Configuring Windows Server 2008 Active Directory:-
 - By [Nelson Ruest, and Danielle Ruest Dan Holme](#) (Microsoft press)
- 2) Windows Server 2008 Active Directory Resource Kit
 - By [Stan Riemer, Conan Kezema, Mike Mulcare, Byron Wright](#) (Microsoft press)

- 3) Mastering Active Directory for Windows Server 2008
 - By [John A. Price](#) , [Brad Price](#) , [Scott Fenstermacher](#) (Sybex press)

- 4) MCTS: Windows Server 2008 Active Directory Configuration Study Guide: Exam 70-640
 - By [William Panek](#) , [James Chellis](#) (Sybex press)

Syllabus of B.Sc. (NT) – Third Year

S6.7

Windows 7 Configuration

(80 Marks)

1. Install, Migrate, or Upgrade to Windows 7	5Hrs.
1.1 Installing Windows 7	
1.2 Upgrading to Windows 7	
1.3 Managing User Profiles	
2. Configuring System Images	4Hrs.
2.1 Capturing System Images	
2.2 Managing Virtual Hard Disk Files.	
3. Deploying System Images	4Hrs.
3.1 Managing a System Image Before Deployment	
3.2 Deploying Images.	
4. Managing Devices and Disks	3Hrs.
4.1 Managing Device Drivers and Devices	
4.2 Managing Disks	
5. Managing Applications	3Hrs.
5.1 Application Compatibility	
5.2 Managing AppLocker and Software	
6. Network Settings	4Hrs.
6.1 Configuring IPv4 .	
6.2 Configuring IPv6.	
6.3 Network Configuration.	
7. Windows Firewall and Remote Management	5 Hrs.
7.1 Managing Windows Firewall.	
7.2 Windows 7 Remote Management	
8. BranchCache and Resource Sharing	6 Hrs
8.1 Sharing Resources.	
8.2 Folder and File Access.	
8.3 Managing BranchCache.	
9. Authentication and Account Control	4 Hrs.
9.1 Managing User Account Control .	
9.2 Windows 7 Authentication and Authorization.	
10. DirectAccess and VPN Connections	5 Hrs.
10.1 Managing DirectAccess.	

10.2 Remote Connections.

11. BitLocker and Mobility Options	2 Hrs.
11.1 Managing BitLocker .	
11.2 Windows 7 Mobility	
12. Windows Update and Windows Internet Explorer	4 Hrs.
12.1 Updating Windows 7	
12.2 Configuring Internet Explorer.	
13. Monitoring and Performance	4 Hrs.
13.1 Monitoring Systems.	
13.2 Configuring Performance Settings.	
14. Recovery and Backup	5 Hrs.
14.1 Backup.	
14.2 System Recovery.	
14.3 Recovering Files and Folders.	

Reference books:

- 1) MCTS 70-680 Configuring-Windows-7 Training Kit – Microsoft Publication

**Syllabus of B.Sc. (NT) – Third Year
S6.8**

Microsoft SharePoint 2010 Administration

(80 Marks)

- | | | |
|-----------|---|---------------|
| 1. | What's New in Microsoft SharePoint 2010 | 7 Hrs. |
| | 1.1 New Requirements Overview | |
| | 1.2 The Advantages of 64-Bit Hardware | |
| | 1.3 The Advantages of 64-Bit Server and Database Platforms | |
| | 1.4 Considerations of 32-Bit and 64-Bit | |
| | 1.5 Requirements by Environment | |
| | 1.6 Base Hardware Requirements | |
| | 1.7 Software Requirements | |
| | 1.8 Client Computer Requirements | |
| | 1.9 What's new and Different with SharePoint Server 2010? | |
| 2. | Planning and Deploying a SharePoint 2010 | 4Hrs. |
| | 2.1 Planning the SharePoint Server 2010 Environment | |
| | 2.2 Architecting SharePoint Components | |
| | 2.3 Architecting SharePoint Topologies | |
| | 2.4 SharePoint Server 2010: Deploying and Upgrading | |
| | 2.5 Deploying SharePoint Server 2010 | |
| | 2.6 Upgrading to SharePoint Server 2010 | |
| 3. | Configuring SharePoint Farm Environments | 5 Hrs. |
| | 3.1 Server Farm Configuration Overview | |
| | 3.2 Usage and Health Data Collection Configuration | |
| | 3.3 Diagnostic Logging Configuration | |
| | 3.4 Configuring Email Integration | |
| | 3.5 Configuring Mobile Accounts for SharePoint | |
| | 3.6 Installing and Configuring Remote BLOB Storage | |
| 4. | Configuring Service Applications | 5 Hrs. |
| | 4.1 Service Applications Configuration Overview | |
| | 4.2 Server Farm Configuration Wizard | |
| | 4.3 Service Applications and Services | |
| | 4.4 Service Application Management | |
| | 4.5 Managing Service Applications | |
| | 4.6 Configuring Individual Service Applications | |
| 5. | Configuring Indexing and Search | 7 Hrs. |
| | 5.1 Enterprise Search Overview | |
| | 5.2 SharePoint Search for Users | |
| | 5.3 SharePoint Search for Administrators | |
| | 5.4 Managing Enterprise Search from General Application Setting | |
| | 5.5 Administering Farm-wide Search | |

- 5.6 Administering Crawling Features
- 5.7 Administering Query and Result Features
- 5.8 Administering Reporting Features
- 5.9 Managing the Enterprise Search Topology
- 5.10 Administering an Index Partition and Query Components
- 5.11 Administrating Crawl Databases and Components
- 5.12 Administering Property Databases and Host
- 5.13 Distribution Rules
- 5.14 Managing FAST Search for SharePoint
- 5.15 Installation and Configuration of FAST Search
- 5.16 Server 2010 for SharePoint
- 5.17 Adding FAST Search Server 2010 as a Backend for
- 5.18 SharePoint

6. Managing Operational Settings **5 Hrs.**

- 6.1 Managing Metadata
- 6.2 Administering Managed Metadata Operations
- 6.3 Managing Database Operations for SharePoint
- 6.4 Administering Database Operations
- 6.5 SQL Server Reporting Services (SSRS)
- 6.6 Managing Business Data Connectivity
- 6.7 Performing Administrative Tasks in Business
- 6.8 Data Connectivity

7. Managing User Accounts and Roles **2 Hrs.**

- 7.1 Managing the User Profile Service
- 7.2 Administering the User Profile Service Application
- 7.3 User and Organization Profile Management

8. Managing Authentication Providers and Permissions **4 Hrs.**

- 8.1 Managing Authentication Methods
- 8.2 Administering Kerberos
- 8.3 Administering Claims-Based Authentication
- 8.4 Administering Active Directory Federation Services
- 8.5 Managing Custom Permissions
- 8.6 Configuring Custom SharePoint Permissions
- 8.7 Errors
- 8.8 Errors on Multiple Systems

9. Managing Web Applications and Host Sites **7 Hrs.**

- 9.1 Managing Business Intelligence
- 9.2 Administering PerformancePoint
- 9.3 Configuring PerformancePoint Services
- 9.4 Deploying PerformancePoint Objects
- 9.5 Administering Excel Services
- 9.6 Managing Excel Services Custom Application

- 9.7 Managing Excel Services Connections
- 9.8 Managing Excel Services Trusted Locations
- 9.9 Configuring a Secure Store for Excel Services

10. Managing Site Collections

5 Hrs.

- 10.1 Site Collections Administration
- 10.2 Managing Site Collections
- 10.3 Managing Site Collection Quotas and Locks
- 10.4 General Site Management
- 10.5 My Site Management
- 10.6 Multi-tenancy Sites Management
- 10.7 Administering the SharePoint Wiki
- 10.8 Web Content Management
- 10.9 Managing File Types
- 10.10 Administering Content Deployment, Managing Web Content

Reference books:

- 1) **MCTS Microsoft SharePoint2010 Configuration Study Guide**
- By James Pyles *Wiley Publishing Inc.*