



**Exam : 070-228**

**Title : Installing, Configuring and Administering  
Microsoft SQL Server 2000, Enterprise  
Edition**

**Ver : 02.24.09**

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**QUESTION 1:**

You work as a system administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. All client computers run either Windows 98 or Novel NetWare. Your duties include administrating a member server named Certkiller -SR07.

You must install SQL Server 2000 on Certkiller -SR07 and create a database named CK\_Data. You need to ensure that all Windows 98 and Novell NetWare client computers can connect to the CK\_Data database using the Named Pipes and IPX/SPX Net-Libraries respectively. You need to configure the client computers to connect to the CK\_Data database using the minimum number of configuration changes on the client computers.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Configure the new instance to use Mixed Mode Authentication.
- B. Configure the new instance to use Windows Authentication.
- C. Configure the new instance to use SQL Server Authentication.
- D. Configure Certkiller -SR07 to use the Named Pipes and IPX/SPX Net-Libraries.
- E. Configure Certkiller -SR07 to use the Multiprotocol Net-Library.
- F. Configure Certkiller -SR07 to use the Shared Memory Net-Library.

Answer: A, D

Explanation: The client computers in this scenario will be running Windows 98 and Novel NetWare. Novell NetWare clients are not supported by Windows Authentication; however SQL Server Authentication should only be used for backward compatibility. Hence you should use Mixed Mode Authentication. By using specific communication protocols, and not the Multiprotocol Net-Library, performance would be better. Every extraneous protocol adds overhead.

Incorrect Answers:

B: As client computers will be running Windows 98 and Novel NetWare, you cannot use Windows Authentication as Novel NetWare systems are not supported by Windows Authentication.

C: SQL Server Authentication should only be used for backward compatibility. Hence you should use Mixed Mode Authentication.

E: The Multiprotocol Net-Library is used to support the different protocol that the clients use. This provides easy of administration. However, since unused protocols are installed, it also introduces overhead. This is not the best solution.

F: Shared Memory is only supported for local database connection on the database server. It does not support database connections over the network.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, setting up

Microsoft SQL Server 2000 Books Online (2004), Index: authentication, overview

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**QUESTION 2:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Advanced Server. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 is a production server and hosts a database named CK\_Sales which stores sales transactions for the company.

Certkiller .com has database application developer named Rory Allen who uses a Windows 2000 Professional client computer named Certkiller -WS228. Rory Allen needs to test a database application on Certkiller -DB01. You install a separate a SQL Server 2000 instance named RA\_Test on Certkiller -DB01. You need to ensure that Rory Allen can connect to the RA\_Test instance.

What should you do?

- A. Configure the RA\_Test instance to use the Named Pipes Net-Library.
- B. Configure the RA\_Test instance to use the Multiprotocol Net-Library.
- C. Configure the RA\_Test instance to use the NWLink IPX/SPX Net-Library.
- D. Configure the RA\_Test instance to use the Shared Memory Net-Library.

Answer: A

Explanation: Windows 2000 Professional can use the TCP/IP Sockets and Named Pipes Net-Libraries by default.

Incorrect Answers:

B: The Multiprotocol Net-Library can only be used to connect to a default instance of SQL Server 2000 as it does not support named instances of SQL Server 2000.

C: The NWLink IPX/SPX Net-Library is used to support Novell NetWare clients.

D: Shared Memory is only supported for local database connection on the database server. It does not support database connections over the network.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, overview

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, setting up

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**QUESTION 3:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. The Certkiller .com network contains a SQL Server 7.0 database server named Certkiller -DB01 that runs on Windows NT Server 4.0. Certkiller -DB01 is a production server and hosts several databases for the company.

You install SQL Server 2000 as the default instance on a new database server named Certkiller -DB02. Certkiller -DB02 runs Windows 2000 Server.

Certkiller .com users in the Accounts department must have direct access to the databases on both Certkiller -DB01 and Certkiller -DB02. The users in the Accounts department use client computers that run Windows 2000 Professional.

You need to encrypt the network communication between the Accounts department users' client computers and the database servers.  
What should you do?

- A. Configure the client computers to use the Named Pipes Net-Library.
- B. Configure the client computers to use the Multiprotocol Net-Library.
- C. Configure the client computers to use the TCP/IP Sockets Net-Library.
- D. Configure the client computers to use the Shared Memory Net-Library.

Answer: B

Explanation:

Windows 2000 Professional can use the TCP/IP Sockets, Multiprotocol and Named Pipes Net-Libraries by default. However, only the Multiprotocol Net-Library supports remote procedure call (RPC) encryption. RPC encryption is required because SQL Server 7.0 only supports RPC encryption.

Incorrect Answers:

A, C: Although the Windows 2000 Professional client computers can use the TCP/IP Sockets and Named Pipes Net-Libraries by default; and the TCP/IP Sockets and Named Pipes Net-Libraries support Secure Socket Layer (SSL), SQL Server 7.0 only supports remote procedure call (RPC) encryption which is only supported by the Multiprotocol Net-Library.

D: Shared Memory is only supported for local database connection on the database server. It does not support database connections over the network.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, overview

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, encryption

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, Multiprotocol

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#### **QUESTION 4:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run on Windows 2000 Server while the client computers run Windows 2000 Professional, Windows 98, and Novell NetWare. All computers are members of the Certkiller .com domain. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that hosts a default instance of SQL Server 2000.

Certkiller .com wants to implement another SQL Server 2000 instance for a database named Sales\_DB. Sales\_DB will store sales data for the company. All Certkiller .com users will require access to the Sales\_DB database. You have been instructed to create the SQL Server 2000 instance for the Sales\_DB database. You need to ensure that all users will be able to connect to the Sales\_DB database. You cannot make configuration changes to the client computers. Your solution must optimize network traffic.

What should you do?

- A. Install the instance as a named instance and configure it to support Mixed Mode Authentication. Then enable the NWLink IPX/SPX Net-Library for the instance.
- B. Install the instance as a default instance and configure it to support Windows Authentication. Then enable the TCP/IP Sockets Net-Library for the instance.
- C. Install the instance as a Named Instance and configure it to support SQL Server Authentication. Then enable the IPX/SPX for the instance.
- D. Install the instance as a default instance and configure it to support Windows Authentication. Then enable the TCP/IP Sockets Net-Library for the instance.

Answer: A

Explanation: The default instance is already in use; therefore you should use a Named Instance as only one instance can be the default instance. You should use Mixed Mode Authentication and enable the NWLink IPX/SPX Net-Library to support Novell NetWare users.

Incorrect answers:

B: You cannot use the default instance as the default instance as it is already in use. Furthermore, you need to use Mixed Mode Authentication as Windows Authentication does not support Novell NetWare users and you need to enable the NWLink IPX/SPX Net-Library to support Novell NetWare users.

C: SQL Server Authentication is supported for backward compatibility and is not recommended for use. You should rather use Mixed Mode Authentication.

D: You cannot use the default instance as the default instance as it is already in use. Furthermore, you need to use Mixed Mode Authentication as Windows Authentication does not support NetWare users. Furthermore, you need to enable the NWLink IPX/SPX Net-Library to support Novell NetWare users.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: authentication, overview

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, overview

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, setting up

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### QUESTION 5:

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com network contains a member server named Certkiller -SR10. The physical hardware on Certkiller -SR10 is shown in the following table.

Hardware Component	
Processor	Intel Pentium 133-MHz
Memory	256 MB RAM
Hard Disk	1 GB with 500 MB free space

You need to ensure that SQL Server 2000 can be installed on Certkiller -SR10. What should you do?

- A. Install more RAM on Certkiller -SR10.
- B. Upgrade the CPU on Certkiller -SR10.
- C. Install a second hard drive on Certkiller -SR10.
- D. Do nothing; SQL Server 2000 can be installed on Certkiller -SR10.

Answer: B

Explanation: SQL Server 2000 has a minimum requirement of a Pentium 166 MHz processor, 64 MB of RAM and approximately 300 MB disk space.

Incorrect answers:

A: 256 MB RAM is above the recommended 128 MB RAM for SQL Server 2000.

C: 500 MB free space is sufficient for SQL Server 2000.

D: You need to upgrade the CPU as SQL Server 2000 has a minimum requirement of a Pentium 166 MHz processor.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: system requirements, installing SQL Server

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### **QUESTION 6:**

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 forest. The Certkiller .com forest has a single root domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com network contains a member server named Certkiller -SR12.

You install SQL Server 2000 on Certkiller -SR12 and configure the MSSQLServer service to run under a domain user account named SQLAdmin in the Certkiller .com root domain. You add the SQLAdmin account to the Enterprise Admins group. You start Certkiller -SR12 but the MSSQLServer service does not start. You need to ensure that the MSSQLServer service starts.

What should you do?

- A. Configure the MSSQLServer service to run under the local System account on Certkiller -SR12.
- B. Add the SQLAdmin user account to the Domain Admins group in the Certkiller .com root domain.
- C. Add the Enterprise Admins group to the Domain Admins group in the Certkiller .com root domain.
- D. Configure the MSSQLServer service and the MSSQLServerAgent service to run under the same user account.

Answer: A

Explanation: The MSSQLServer service must have the Log on as a service right on the local computer. You have created a user account for the SQLServer service but this service does not have the Log on as a service right on the local computer. You



can resolve the problem by having the MSSQLServer service use the local System account.

Incorrect answers:

B, C: Adding the SQLAdmin user account or the Enterprise Admins group to the Domain Admins group will not ensure that the SQLServer service will start. The MSSQLServer service must have the Log on as a service right on the local computer.  
D: The MSSQLServer and MSSQLServerAgent services usually run under the same user account to reduce administrative overhead; however, the MSSQLServer service must have the Log on as a service right on the local computer before it will start.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: MSSQLServer, user accounts, Setting up Windows Services Accounts

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### **QUESTION 7:**

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows NT 4.0 domain named Certkiller . All servers on the Certkiller .com network run Windows NT Server 4.0. The Certkiller .com network contains three SQL Server 2000 database servers named Certkiller -DB01, Certkiller -DB02 and Certkiller -DB03.

You need to configure replication between the three database servers. You configure the MSSQLServer service on all three database servers to use a domain user account named SQLAdmin. You need to ensure that the SQL Server 2000 database servers continue to function properly.

What should you do?

- A. Assign the SQLAdmin user account the Log on as a service user right.
- B. Add the SQLAdmin user account to the Enterprise Admins group in the domain.
- C. Configure the MSSQLServer service to run under the local System account.
- D. Reset the password for the SQLAdmin user account.

Answer: A

Explanation: The MSSQLServer service must have the Log on as a service right on the local computer. You have created a user account for the SQLServer service but this service does not have the Log on as a service right on the local computer.

Incorrect answers:

B: Adding the SQLAdmin user account to the Enterprise Admins group will not ensure that the SQLServer service will start. The MSSQLServer service must have the Log on as a service right on the local computer.

C: Configuring the MSSQLServer service to run under the local System account will allow the MSSQLServer service to start but will not allow replication between the three servers as the local System account cannot access the network.

D: Resetting the password for the SQLAdmin user account is not required.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: MSSQLServer, user accounts, Setting up Windows Services Accounts

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**QUESTION 8:**

You work as the database administrator at Certkiller .com. Certkiller .com has a Windows NT 4.0 network. The Certkiller .com network contains a database server named Certkiller -DB01 that hosts a SQL Server 6.5 database named CK\_Sales and a SQL Server 7.0 database named CK\_Inventory.

You need to upgrade the CK\_Sales database to SQL Server 2000. You install a named instance of SQL Server 2000 on Certkiller -DB01. You run the SQL Server Upgrade Wizard to upgrade the CK\_Sales database to SQL Server 2000. However, the CK\_Sales database is not listed on the Database Selection page of the SQL Server Upgrade Wizard.

You need to ensure that the CK\_Sales database is listed on the Database Selection page.

What should you do?

- A. Upgrade SQL Server 7.0 to SQL Server 2000.
- B. Install Service Pack 5 for SQL Server 6.5.
- C. Install SQL Sever 2000 on a separate server.
- D. Reinstall SQL Server 2000 as a default instance.

Answer: D

Explanation: To run the SQL Server Upgrade Wizard, you must have a default instance of Microsoft SQL Server 2000 installed on the server.

Incorrect Answers:

A: It is not necessary to upgrade SQL Server 7.0 to SQL Server 2000. You must install SQL Server as a default instance as you cannot run the SQL Server Upgrade Wizard unless SQL Server 2000 is installed as the default instance.

B: Service Pack 5 for SQL Server 6.5 is required if you want to install SQL Server 2000 as a side-by-side installation. However, you want to upgrade SQL Server 6.5 to SQL Server 2000 sing the SQL Server Upgrade Wizard. You must install SQL Server as a default instance to use the SQL Server Upgrade Wizard.

C: Installing SQL Server 2000 on a separate server will not allow you to use the SQL Server Upgrade Wizard.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: instances of SQL Server, overview, Working with Three Versions of SQL Server

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Server 6.5 Upgrade, Upgrading Databases from SQL Server 6.5 (Upgrade Wizard)

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**QUESTION 9:**

You work as the database administrator at Certkiller .com. The Certkiller .com



network consists of a single domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com network contains three SQL Server 6.5 database servers named Certkiller -DB01, Certkiller -DB02 and Certkiller -DB03. Server Service Pack 3 for SQL Server 6.5 is installed on each database server. In addition to several other databases, Certkiller -DB01 hosts a database named CK\_Sales which stores sales transactions for the company.

Certkiller .com wants to upgrade the CK\_Sales database to SQL Server 2000. You decide to perform an in-place upgrade to SQL Server 2000. You run database consistency checks against each database on Certkiller -DB01 and then backup the databases.

What should you do next? (Each correct answer presents part of the solution. Choose TWO.)

- A. Change the database instances on Certkiller -DB01 to named instances.
- B. Install Service Pack 4 for SQL Server 6.5 on Certkiller -DB01.
- C. Install Service Pack 5 for SQL Server 6.5 on Certkiller -DB01.
- D. First upgrade Certkiller -DB01 to SQL Server 7.0.
- E. Install the SQL Server instance as the default instance on Certkiller -DB01.

Answer: C, E

Explanation: You are only upgrading one database to SQL Server 2000; therefore you will be running SQL Server 6.5 along side SQL Server 2000. You need to install Service Pack 5 for SQL Server 6.5 to support side-by-side installations with SQL Server 2000. Also, the SQL Server 2000 installation must be the default instance as SQL Server 6.5 only recognizes default instances and not named instances.

Incorrect answers:

- A: SQL Server 6.5 only recognizes default instances and not named instances.
- B: The minimum requirement for upgrading to SQL Server 2000 from SQL Server 6.5 is Service Pack 5.
- D: You can upgrade to SQL Server 7.0 and then to SQL Server 6.5 but this is unnecessary as you can upgrade from SQL Server 6.5 Service Pack 5 to SQL Server 2000.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Server 6.5 upgrade, Preparing to Upgrade from SQL Server 6.5

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Server Architecture, working with instances and Versions of SQL Server

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### **QUESTION 10:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com departments include a Sales department, a Purchasing department, and an

Accounts department. The Certkiller .com network contains a SQL Server 6.5 database server named Certkiller -DB01 and a SQL Server 2000 database server named Certkiller -DB02. Certkiller -DB02 contains a database named CK\_Sales that stores sales data for the company.

The Sales department makes extensive use of the CK\_Sales database. Certkiller .com users in the Purchasing department make use of a Microsoft Access database that runs on an application server named Certkiller -SR04 while users in the Accounts departments make use of a SQL Server 6.5 database that run Certkiller -DB01.

The manager of the Accounts department wants to be able to run distributed queries against the CK\_Sales database and the databases in the Purchasing and Accounts departments. You must configure the Certkiller -SR04 and Certkiller -DB01 as linked servers on Certkiller -DB02. You need to select the required data sources to create the linked server definitions.

What should you do? (Choose all that apply.)

- A. Use the OLE DB Provider for Jet as a data source.
- B. Use the OLE DB Provider for SQL Server as a data source.
- C. Use the OLE DB Provider for ODBC as a data source.
- D. Use the OLE DB Provider for DB2 as a data source.

Answer: A, B

Explanation: The Microsoft Access database requires the OLE DB Provider for Jet to communicate with the linked server while the SQL Server 6.5 database requires the OLE DB Provider for SQL Server.

Incorrect answers:

C: SQL Server 6.0 databases require the OLE DB Provider for ODBC but SQL Server 6.5 databases require the OLE DB Provider for SQL Server.

D: The OLE DB Provider for DB2 is required for IBM DB2 databases.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: distributed queries, OLE DB Providers

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### **QUESTION 11:**

You have just been hired as the database administrator at Certkiller .com.

Certkiller .com currently uses several Microsoft Access databases to store its business information. The Microsoft Access databases are stored on two application servers named Certkiller -SR04 and Certkiller -SR05.

You have been instructed to migrate some of the Microsoft Access databases on Certkiller -SR04 to SQL Server 2000. You must ensure that Certkiller .com users can access data in the Microsoft Access databases until all the data has been migrated to SQL Server 2000. During the migration process, Certkiller .com users must be able to run distributed queries against the data in both SQL Server 2000 and Microsoft Access. You install SQL Server 2000 on a member server named Certkiller -SR06. Certkiller -SR06 has limited disk space.

What should you do?

- A. Configure Certkiller -SR04 as a linked server on Certkiller -SR06. Configure the OLE DB Provider for Jet as the data source.
- B. Configure Certkiller -SR04 as a linked server on Certkiller -SR06. Configure the OLE DB Provider for SQL Server as a data source.
- C. Configure Certkiller -SR06 as a linked server on Certkiller -SR04. Configure the OLE DB Provider for ODBC as a data source.
- D. Configure Certkiller -SR06 as a linked server on Certkiller -SR04. Configure the OLE DB Provider for SQL Server as a data source.

Answer: A

Explanation: To support distributed queries, you must configure the Microsoft Access database server as a linked server on the SQL database server. Microsoft Access requires the OLE DB Provider for Jet to communicate with the linked server.

Incorrect answers:

B: Microsoft Access requires the OLE DB Provider for Jet to communicate with the linked server, not the OLE DB Provider for SQL Server.

C, D: You cannot create linked servers in Microsoft Access. You must create them in SQL Server 2000.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: distributed queries, OLE DB Providers

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## **QUESTION 12:**

You work as the database administrator at Certkiller .com. Certkiller .com has a Windows NT 4.0 network. The Certkiller .com network contains a SQL Server 7.0 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Data that stores business data for the company.

You have been instructed to implement SQL Server 2000 on a new database server named Certkiller -DB02. You must configure Certkiller -DB01 as a linked server on Certkiller -DB02 once SQL Server 2000 has been implemented. Certkiller .com users must query only the SQL Server 2000 database. You must ensure that users can perform distributed queries.

What should you do?

- A. Enable the Named Pipes client Net-Library on Certkiller -DB01.
- B. Install SQL Server 7.0 client tools and connectivity components on Certkiller -DB02.
- C. Install SQL Server 2000 client tools and connectivity components on all client computers.
- D. Enable the Named Pipes client Net-Library on Certkiller -DB02.

Answer: C

Explanation: To enable users to perform distributed queries on the SQL Server 2000 database, you must upgrade the SQL Server 7.0 client tools and connectivity components on their client computers to SQL Server 2000. The SQL Server 2000 client tools and connectivity components support the new features in SQL Server 2000 that were not supported in SQL Server 7.0.

Incorrect answers:

A, D: The Named Pipes client Net-Library is not required to allow users to perform distributed queries on the SQL Server 2000 database.

B: SQL Server 2000 client tools and connectivity components are backward compatible with SQL Server 7.0 client tools and connectivity components. Therefore you do not need to install SQL Server 7.0 client tools and connectivity components on Certkiller -DB02.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: clients, components

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### **QUESTION 13:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01, and a Microsoft Exchange Server 5.5 mail server named Certkiller -EX01. (MAPI) is enabled on Certkiller -EX01.

You configure the SQL Server Agent to log in to Windows 2000 under a user account named SQLAgent when firing alerts. You want the SQL Server Agent service to send an e-mail when an alert is fired.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Add the SQLAgent user account to the Enterprise Admins group.
- B. Log on to Certkiller -DB01 as SQLAgent.
- C. Log on to Certkiller -EX01 as SQLAgent.
- D. Configure a mail profile for the SQLAgent user account.
- E. Configure the mailbox properties for the SQLAgent user account.

Answer: B, D

Explanation: You need to create a mail profile for the SQLAgent user account. You can accomplish this by logging on to the database server as SQLAgent and using the SQL Server Enterprise Manager console to create the mail profile.

Incorrect answers:

A: Membership to the Enterprise Admins group is not required to enable SQL Mail.

C: You must create a mail profile for the SQLAgent user account to allow it to send e-mail. This is performed on the database server and not the mail server.

D: You must create a mail profile for the SQLAgent user account, not the mail box properties.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: mail, SQL Mail

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Agent Mail

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**QUESTION 14:**

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows NT 4.0 domain. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01, and a Microsoft Exchange Server 5.5 mail server named Certkiller -EX01. (MAPI) is enabled on Certkiller -EX01. The MSSQLServer and MSSQLServerAgent services on Certkiller -DB01 are configured to run under different domain user accounts. Certkiller -DB01 hosts a database named CK\_Sales that is used to store sales related data for the company.

You want the MSSQLServerAgent service to send an e-mail to the backup operator when database backup jobs have completed successfully. You configure a mail profile for the MSSQLServerAgent service. You test your solution by backing up the master database on Certkiller -DB01. The designated backup operator reports that she has received the e-mail.

Mia Hamm is the manager of the Purchasing department. Mia Hamm wants to be informed whenever changes are made to the Inventory table in the CK\_Sales database. You create a trigger to send an e-mail message to Mia Hamm whenever INSERT, UPDATE or UPDATE statements are run against the Inventory table. You configure the trigger to use the xp\_sendmail extended stored procedure and configure the Mia Hamm's user account as the designated operator. You test your solution by inserting a row into the CK\_Sales.Inventory table. However, Mia Hamm does not receive an e-mail message.

You need to ensure that Mia Hamm receives an e-mail message whenever changes are made to the CK\_Sales.Inventory table. You want to accomplish this task using the least amount of administrative effort

What should you do? (Choose all that apply.)

- A. Configure the MSSQLServer service and the MSSQLServerAgent service to run under the local System account.
- B. Configure the MSSQLServer service and the MSSQLServerAgent service to run under the same user account.
- C. Configure the MSSQLServer service and the MSSQLServerAgent service to use the same mail profile.
- D. Configure the permissions on Certkiller -EX01 to allow multiple connections to the SQL Server mailbox.
- E. Configure the permissions on Certkiller -EX01 to allow connections from the MSSQLServer service account.

Answer: B, C

Explanation: SQL Server 2000 has two independent mail mechanisms - SQL Mail and SQLServerAgent Mail. SQLServerAgent Mail sends mail messages in response to alerts and jobs while SQL Mail handles stored procedures related to e-mail.

Because the two mail mechanisms operate independently, you need to create mail profiles for both mechanisms. The easiest way to accomplish this is to configure the MSSQLServer service to use that same user account and mail profile as the MSSQLServerAgent service.

Incorrect Answers:

A: Configuring the MSSQLServer and MSSQLServerAgent services to run under the local System account will not allow the services to send e-mail messages as the local System account cannot access the network.

D, E: There is no need to configure any permissions on Certkiller -EX01 as the MSSQLServerAgent service can send mail successfully. You need to configure the MSSQLServer service to use that same user account and mail profile as the MSSQLServerAgent service.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: mail, SQL Mail

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Agent Mail

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### **QUESTION 15:**

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. The Certkiller .com network contains 12 Windows 2000 Server computers, 70 Windows 2000 Professional client computers, 45 Windows NT Workstation 4.0 client computers, 20 Windows 98 client computers and 5 Macintosh client computers. The AppleTalk protocol is installed and enabled on the Macintosh client computers. The Certkiller .com network also contains a SQL Server 2000 database server named Certkiller -DB01.

A default instance and a named instance of SQL Server 2000 are installed on Certkiller -DB01. The default instance is configured to use the Named Pipes and TCP/IP Sockets Net-Libraries while the named instance is configured to use the AppleTalk and TCP/IP Sockets Net-Libraries. You add 10 new Novell NetWare client computers to the network. Only the IPX/SPX protocol is installed and enabled on the Novell NetWare client computers.

The Windows-based client computers will only connect to the default instance while the Macintosh and Novell NetWare clients will only connect to the named instance.

You need to ensure that the respective client computers can connect to the appropriate instance. You want the minimum number of Net-Libraries enabled on Certkiller -DB01.

What should you do? (Choose all that apply.)

- A. Enable the Shared Memory Net-Library on the default instance.
- B. Enable the Shared Memory Net-Library on the named instance.
- C. Disable the TCP/IP Sockets Net-Library on the default instance.



- D. Disable the TCP/IP Sockets Net-Library on the named instance.
- E. Enable the NWLink IPX/SPX Net-Library on the default instance.
- F. Enable the NWLink IPX/SPX Net-Library on the named instance.
- G. Enable the AppleTalk Net-Library on the default instance.
- H. Disable the Named Pipes Net-Library on the default instance.

Answer: D, F, H

Explanation: To enable that Novell NetWare clients can connect to the named instance, you must enable the NWLink IPX/SPX Net-Library on the named instance.

You should disable the TCP/IP Sockets Net-Library on the named instance as neither the Macintosh nor the Novell NetWare clients require the TCP/IP Sockets Net-Library.

You should also configure the default instance to use only the TCP/IP Sockets Net-Library as Windows 98 clients can only use TCP/IP Sockets Net-Library and not the Named Pipes Net-Library. This means you must disable the Named Pipes Net-Library on the default instance.

Incorrect answers:

A, B: Shared Memory is only supported for local database connection on the database server. It does not support database connections from client computers over the network. Furthermore, Shared Memory is enabled by default and cannot be disabled.

C: You should also configure the default instance to use only the TCP/IP Sockets Net-Library as Windows 98 clients can only use TCP/IP Sockets Net-Library and not the Named Pipes Net-Library. This means you must disable the Named Pipes Net-Library rather than the Named Pipes Net-Library on the default instance.

E, G: Only the Macintosh and Novell NetWare clients use the AppleTalk and NWLink SPX/IPX Net-Libraries respectively. As these clients will only connect to the named instance, the AppleTalk and NWLink SPX/IPX Net-Libraries are not required on the default instance.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, overview

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, setting up

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, AppleTalk

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, IPX/SPX

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, Named Pipes

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, Shared Memory

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, TPC/IP Sockets

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### **QUESTION 16:**

You work as a network administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The client computers run a variety of operating systems, including Windows 98, Windows NT Workstation 4.0, Macintosh and UNIX.

Certkiller .com wants to implement a SQL Server 2000 database server named

Certkiller -DB01. Certkiller -DB01 will store business information for the company. Some of the business information is of a sensitive nature. To protect the sensitive information, you must secure all network communication between Certkiller -DB01 and the Certkiller .com client computers.

What should you do?

- A. Enable SSL encryption on all Net-Libraries and protocols.
- B. Configure Certkiller -DB01 to use IPsec.
- C. Configure Certkiller -DB01 to use the only the Multiprotocol Net-Library and enable RPC encryption.
- D. Configure Certkiller -DB01 to use the only the IP/TCP Sockets Net-Library.

Answer: A

Explanation: SQL Server 2000 supports Secure Sockets Layer (SSL) encryption for all protocols and Net-Libraries.

Incorrect answers:

B: IPsec can only be used on TCP/IP and is only supported by Windows 2000.

C: The Multiprotocol Net-Library does not support Macintosh clients.

D: Using only the IP/TCP Sockets Net-Library will not provide security on its own. It also does not support Macintosh clients.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: Secure Sockets Layer

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, encryption

Microsoft SQL Server 2000 Books Online (2004), Index: Net-Library, Multiprotocol

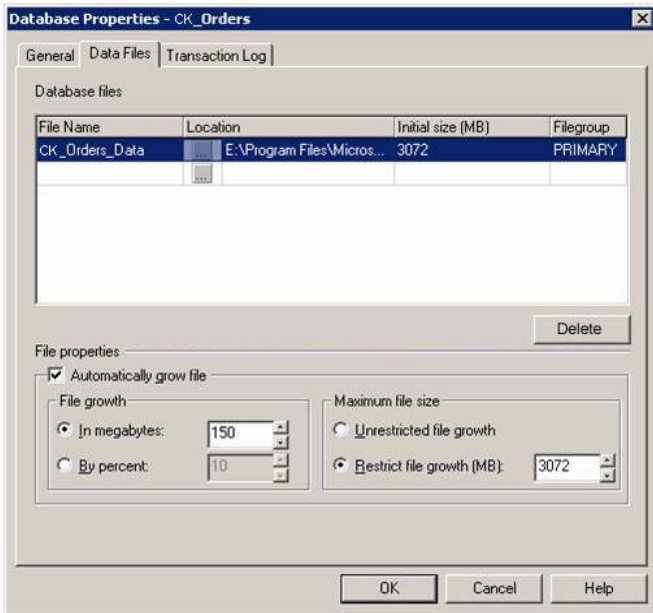
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### **QUESTION 17:**

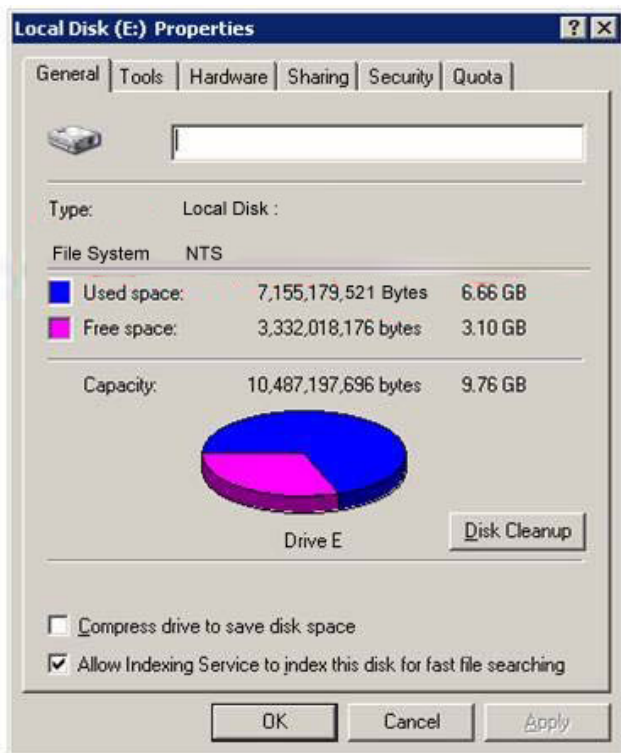
You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Orders. CK\_Orders is a decision-support system (DSS) database.

Following is an exhibit that illustrates the physical characteristics of the CK\_Orders datafile:

Exhibit:



Part of your duties at Certkiller .com includes the creation of SQL Server 2000 databases. A few months ago you created a job that runs several DTS packages to transform and load data from a third party ODBS-compliant database to the CK\_Orders database. This job was scheduled to occur on a regular basis. An amount of approximately 50 MB of new data is loaded every time the job executes. Today, however, the job failed to execute and no new data was thus added to the DDS CK\_Orders database. The following exhibit illustrates the properties of the disk on which CK\_Orders is hosted. This disk also holds the transaction logs. Exhibit:



Your instructions are to ensure that the data is transferred successfully without incurring extra administrative cost. To this end you need to provide a solution that will alleviate the problem temporarily.

What should you do?

- A. The active portion of the transaction log must be truncated.
- B. Another data file should be created in the new filegroup on the disk.
- C. File growth should be restricted to 4 GB.
- D. File growth should be restricted to 2,500 MB.

Answer: C

Explanation: It is clearly indicated in the exhibit that 3.10 BG free disk space exists on the disk. The fact that the transfers did not occur is probably due to a lack of space because the data file probably reached its maximum size and thus cannot grow anymore. This means that you should increase data file size to accommodate regular data transfers temporarily. It is also mentioned in the question that approximately 50 MB of new data is transferred at a time. Thus increasing the data file's maximum size by 1 GB should provide enough space to complete at least 20 more data transfers. Thereafter you will be compelled to add another disk and create another data file for the database. But for the purposes of this question you should restrict the file growth to 4 GB to alleviate the problem temporarily.

Incorrect answers:

A: The active portion of a transaction log cannot be truncated because it is associated with change records that are associated with uncommitted transactions and must be available in case of recovery of the database.

B: Although you could create another data file in a new filegroup on the same disk, you would not be providing extra space, unless you moved some of the existing database objects to the additional disk space. This thus means administrative extra cost because then you would also have to monitor space usage in two files instead of one because SQL Server does not automatically balance space usage between files that belong to separate filegroups.

D: You cannot restrict the data file maximum size to 2,500 MB because the file already contains approximately 3 GB of data as shown in the exhibit.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: Creating and Maintaining Databases, "Databases", "Parts of a Database", "Files and Filegroups."

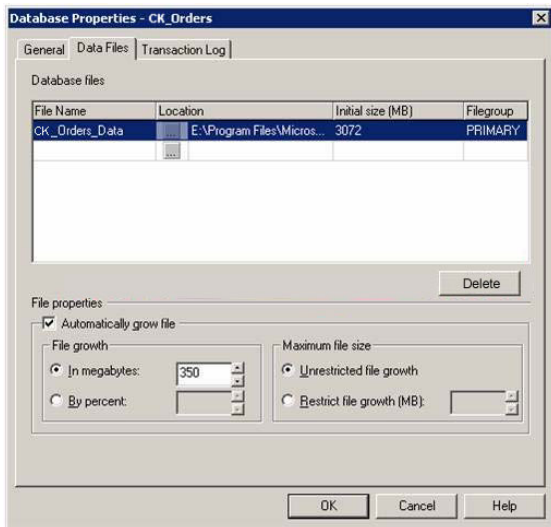
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### **QUESTION 18:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer.

Certkiller -DB01 hosts a database named CK\_Orders. The CK\_Orders properties are illustrated in the exhibit below:

Exhibit:



Approximately 2 GB of data was loaded into the database after it was created, and every other business data approximately 120 MB of new data is added. Three weeks after CK\_Orders was created and in operation, you attempt to add new data. However, the database is very sluggish, and the disk was thrashing. On the following Monday you added new data to CK\_Orders and did not experience any problems. The Wednesday, when attempting to ass new data to CK\_Orders, you again find that the database is sluggish and the disk is thrashing. You do not want the periodic performance degradation and thus investigate the issue. You found that the disk contains 30 GB of free space. You now need to decide on a plan of action to alleviate the problem. What should you do?

- A. The transaction log should be truncated.
- B. The sp\_spaceused stored procedure should be executed.
- C. CK\_Orders should be backed-up using the NO\_TRUNCATE option.
- D. The current size of the file and the growth increment should be increased.

Answer: D

Explanation: Gauging by what is mentioned in the question; you failed to accurately assess the amount of space that CK\_Orders would use. This resulted in the periodic performance deterioration every time new data is added when the data file is full. When creating a database it is recommended to configure the file and growth increments to accommodate the database. In this case you need to increase the current size of the data file to a reasonable amount and you should adjust the growth increment accordingly.

Incorrect answers:

A: Truncating the transaction log will remove the older transactions that have been committed to CK\_Orders, but it will not reallocate space on a disk to a data file.

B: The sp\_spaceused stored procedure is used to determine how much space a database or table holds. It will not be of use in this situation.

C: Backing-up CK\_Orders will not alleviate the space issues at hand. And also the NO\_TRUNCATE option cannot be specified when you perform a transaction log backup.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Physical Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Space Allocation and Reuse," "Managing Space Used by Objects"

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Physical Database Files and Filegroups," "Using Filegroups and files to manage database growth"

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### **QUESTION 19:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Orders. Several data capturers enter data into the CK\_Orders database everyday. The Simple Recovery Model is implemented for the CK\_Orders database. A Full backup of the CK\_Orders database is performed every Saturday at 2:00 P.M.

You are concerned that data loss may occur should Certkiller -DB01 suffer a hard disk failure. You decide to implement additional backups of the CK\_Orders database on a daily basis. You want to minimize the amount of time required for the backups as well as the time required to restore the database.

What should you do?

- A. Perform differential backups of the CK\_Orders database on every week day.
- B. Switch the CK\_Orders database to the Full Recovery Model.
- C. Perform a Full backup of the CK\_Orders database on every week day.
- D. Perform incremental backups of the CK\_Orders database on every week day.

Answer: A

Explanation: To minimize the amount of time required to perform the backups, you need to perform differential backups on the week days. Differential backup ups only backs up the data that has changed since the last Full backup.

Incorrect answers:

B: The recovery model will not affect the time required for the backup or the restore.

C: Restoring data from transaction log backups will not minimize restore times.

D: SQL Server 2000 does not support incremental backups.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: database backups



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**QUESTION 20:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000. The Certkiller .com network contains two SQL Server 2000 database servers named Certkiller -DB01 and Certkiller -DB02, and a member server named Certkiller -SR33. A database mirroring session operating in synchronous mode is in operation between Certkiller -DB01 and Certkiller -DB02, with Certkiller -DB01 being the principal database server. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data from Certkiller .com's e-Commerce Web site.

One Monday morning you discover that the CK\_Sales database is unavailable. You discover that Certkiller -DB01 is offline while Certkiller -DB02 is online; however, failover to Certkiller -BD02 did not occur. This failure has adversely affected the profitability of Certkiller .com's e-Commerce division. You need to improve the availability of the CK\_Sales database. You are unable to acquire any additional hardware.

What should you do?

- A. Configure Certkiller -DB01 and Certkiller-DB02 in a failover cluster with two active nodes.
- B. Configure the mirrored database session to run in asynchronous mode.
- C. Install SQL Server 2000 on Certkiller -SR33 and configure it as a witness server.
- D. Configure the mirrored database to operate in high-safety mode.

Answer: C

Explanation: High-safety mode supports synchronous operation in which all transactions must be committed to both partners. This provides zero-loss of data but requires a witness to provide automatic failover.

Incorrect answers:

A: Failover clustering would require additional hardware in the form of a shared external hard disk drive. You, however, are unable to acquire additional hardware. Database mirroring is a software solution, but requires a witness server to provide failover.

B: In Asynchronous mode a transaction is committed to the principal database without requiring the principal database to wait for the mirror database to write the transaction log to disk. This maximizes performance for the mirrored database but at the expense of high-availability.

When the principal server of a mirrored database in asynchronous operation fails, you must manually stop the mirror session, update the database and begin a new mirroring session.

D: High-safety mode supports synchronous operation in which all transactions must be committed to both partners. This provides zero-loss of data but requires a witness to provide automatic failover.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: database mirroring, about database mirroring

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**QUESTION 21:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that hosts a database named CK\_Projects. The CK\_Projects database contains a table named Documents that contains an XML column named DocLocation. Certkiller .com users complain that queries against the DocLocation column are processed very slowly. You want to improve the performance of queries that are run against the DocLocation column by creating an index on the column. What should you do?

- A. Create a primary index on the primary key of the Documents table and secondary index on the DocLocation column.
- B. Create a clustered index on the primary key of the Documents table and secondary index on the DocLocation column.
- C. Create a nonclustered index on the primary key of the Documents table and primary index on the DocLocation column.
- D. Create a clustered index on the primary key of the Documents table and primary index on the DocLocation column.

Answer: D

Explanation: You can create XML on XML data type columns to index all tags, values and paths in the column. This will improve query performance. The first XML index must be a primary index and the Documents table must have a clustered index on the primary key. A clustered index determines the physical ordering of the rows in a table and is required as the primary key is used to correlate XML index rows with the rows in the table.

Incorrect Answers:

- A: You cannot create a unique index, clustered index or nonclustered index but not a primary index on a non-XML column. You must create a clustered index on the primary key as the primary key is used to correlate XML index rows with the rows in the table. Also, the first XML index must be a primary index. Secondary indexes can be created once the primary index has been created.
- B: The first XML index must be a primary index. Secondary indexes can be created once the primary index has been created.
- C: You must create a clustered index on the primary key as the primary key is used to correlate XML index rows with the rows in the table. A clustered index determines the physical ordering of the rows in a table while a nonclustered index creates a logical

ordering.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: indexes, creating

Microsoft SQL Server 2000 Books Online (2004), Index: indexes, clustered

Microsoft SQL Server 2000 Books Online (2004), Index: indexes, nonclustered

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**QUESTION 22:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Manufacturing that stores data from the Manufacturing department and a database named CK\_Sales that stores sales data for the company.

Due to the growth of the CK\_Sales database, Certkiller -DB01 is running low on free disk space. It is anticipated that the CK\_Sales database will grow even further over the next few months. You add a second SQL Server 2000 database server named Certkiller -DB02 to the Certkiller .com network. You want to move the CK\_Sales database to Certkiller -DB02. You need to accomplish task in minimum time.

What should you do?

A. A Full backup of the CK\_Sales database and its transaction logs must be performed. Restore the Full backup to Certkiller -DB02.

Restore the transaction logs to Certkiller -DB02.

B. Detach the CK\_Sales database on Certkiller -DB01 by executing the sp\_detach\_db stored procedure.

Copy the data and log files for CK\_Sales to Certkiller -DB02.

Attach the CK\_Sales database to Certkiller -DB02 by executing the sp\_attach\_db stored procedure.

C. Stop the SQL Server service on Certkiller -DB01.

Detach the CK Sales database on Certkiller -DB01 by executing the sp\_detach\_db stored procedure.

Copy the data and log files for CK\_Sales to Certkiller -DB02.

Attach the CK\_Sales database to Certkiller -DB02 by executing the sp\_attach\_db stored procedure.

D. A new database named CK\_Sales on Certkiller -DB02 must be created.

Copy data from the CK\_Sales database on Certkiller -DB01 to the new CK\_Sales database on Certkiller -DB02 using the SQL Server Import and Export Wizard.

Answer: B

Explanation: The fastest method of moving a database from one server to another is to detach the database and attach it to the destination server. This can be accomplished by running the sp\_detach\_db stored procedure to detach the database

on source server, copying the data and log files for the database to the destination server, and then running the sp\_attach\_db stored procedure to attach the database to the destination server.

Incorrect answers:

A: The Use the detach and attach method option does not allow active connections to the database while it is being moved and thus will not allow the database to be queried while it is being moved.

C: You can move the database by restoring a backup of the database to the destination server but it is quicker to detach and attach the database.

D: The SQL Server Import and Export Wizard can be used to move a database but it is quicker to detach and attach the database.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: sp\_attach\_db

Microsoft SQL Server 2000 Books Online (2004), Index: sp\_detach\_db

Microsoft SQL Server 2000 Books Online (2004), Index: attaching databases, onto another server instance

Microsoft SQL Server 2000 Books Online (2004), Index: detaching databases

Microsoft SQL Server 2000 Books Online (2004), Index: SQL Server Import and Export Wizard

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### **QUESTION 23:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 B01.

Certkiller -DB01 hosts a database named CK\_Products that contains 60 lookup tables. The lookup tables should remain static at all times and users should not be able to alter the static data. You discover that some of the data in the lookup tables have been altered. You need to ensure that users cannot change any of the data in the lookup tables.

What should you do?

A. Create a new filegroup and move the lookup tables to the new filegroup.

Enable the Read-Only option on the filegroup.

B. A view of the lookup tables should be created.

Allow users to access the lookup tables through the view only.

C. Stored procedures for modifying data in the lookup tables should be created.

Allow users to modify data through the stored procedures only.

D. A new database role should be created and all users should be added to the new role.

Grant SELECT permissions to the new role.

Answer: A

Explanation:

You can prevent users from modifying data in the lookup tables by moving the tables to a separate filegroup and making the file group read-only.

Incorrect answers:

B: Views are used to limit the part of the database that the users can see. It does not prevent them from modifying the data in the underlying table.

C: Users should not be able to modify the data in the lookup tables. Allowing them to modify data through the stored procedures only would not meet this requirement.

D: This option will require considerable administrative effort as there are 60 lookup tables. You will need to grant SELECT permissions for each of these tables. Less effort is required when using a read-only filegroup.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: filegroups, read-only

Microsoft SQL Server 2000 Books Online (2004), Index: views

Microsoft SQL Server 2000 Books Online (2004), Index: database roles

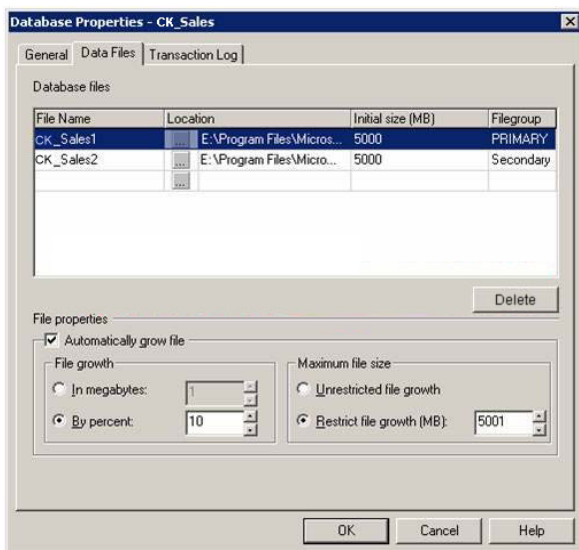
Microsoft SQL Server 2000 Books Online (2004), Index: stored procedures

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## QUESTION 24:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The following exhibit illustrates the database properties of the CK\_Sales database.

Exhibit:



CK\_Sales contains two data files named CK\_Sales1 and CK\_Sales2. Both are located on drive E. Drive E has 50 MB of free space available. The Sales department members gain access to the database via a custom application that allows them to create new tables and indexes. Thus all user tables and their indexes were created by the Sales department members using this custom application only. The custom

application does not make provision for users to specify a filegroup on which to place the objects that are creating.

You received a report from the Sales department members that they are unable to create new objects. You need to address this issue and thus need to provide additional disk space to enable users to continue working. You want to address this issue using the least amount of administrative effort.

What should you do?

- A. Automatic file growth should be disabled for the Primary filegroup.
- B. Additional transaction log files should be created on drive E.
- C. Additional files should be created in the Primary filegroup on drive E.
- D. Secondary should be configured as the default filegroup.
- E. The maximum allowed size for the secondary file should be reduced on the Properties sheet for the database.

Answer: D

Explanation: In the event of no filegroup explicitly specified as the default filegroup, then Primary will become the default filegroup resulting in all new tables and indexes that are created to be placed in the default filegroup. The custom application does not allow for users to specify a filegroup. Thus one can conclude that the reason why the Sales Department members cannot create new objects must be that the Primary filegroup is nearly full. It is also mentioned in the question that all user tables and indexes have been created using the custom application only. Thus no objects should currently reside on Secondary, and thus its file would be empty. To remedy the situation with the least amount of effort should then be to specify Secondary as the default filegroup. This should allow users to create new tables and indexes which will then be assigned to Secondary.

Incorrect answers:

- A: .Disabling automatic file growth for Primary filegroup will not provide additional disk space.
- B: .Creating additional log files will result in more than the required administrative effort to remedy the situation.
- C: This situation can be remedied by creating an additional file in the Primary filegroup on drive E. But drive E only has 50 MB of available free space.
- E: You cannot reduce the maximum allowed size for the secondary file on the Properties sheet for the database.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Physical Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Space Allocation and Reuse," "Managing Space Used by Objects"

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Physical Database Files and Filegroups," "Default Filegroups"



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**QUESTION 25:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales and product data. The Simple Recovery Model is implemented for the CK\_Sales database. A Full backup of the CK\_Sales database is performed every Saturday at 8:00 P.M.

The sales data is updated frequently throughout the day. Over the last six months the CK\_Sales database has grown considerably. At present the Full backup requires 6 hours to complete. You are concerned that data loss may occur should Certkiller -DB01 suffer a hard disk failure. You decide to implement additional backups of the CK\_Sales database on a daily basis. However, the backup may only run between midnight and 4:00 A.M. on week nights.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Schedule a Full backup of the CK\_Sales database at 12:00 P.M. every week night.
- B. Schedule a differential backup of the CK\_Sales database at 12:00 P.M. every week night.
- C. Create two filegroups. Backup a different filegroup every other week night.
- D. Backup the transaction log every week night.

Answer: C, D

Explanation: Creating two filegroups and backing up a different filegroup every other week night will allow you to backup the database within the given time frame during the week.

You should also backup the transaction logs every night to ensure full recoverability as only one filegroup is backed up each night.

Incorrect answers:

A: A Full backup requires six hours to complete but the backup can only run from 12:00 P.M. until 4:00 P.M. during the week. Thus there is insufficient time to complete a Full backup during the week.

B: A differential backup will backup all data that has changed since the last Full backup. Towards the end of the week the differential backup may take quite some depending on the number of changes made since the last Full backup and may require more than 4 hours to complete.

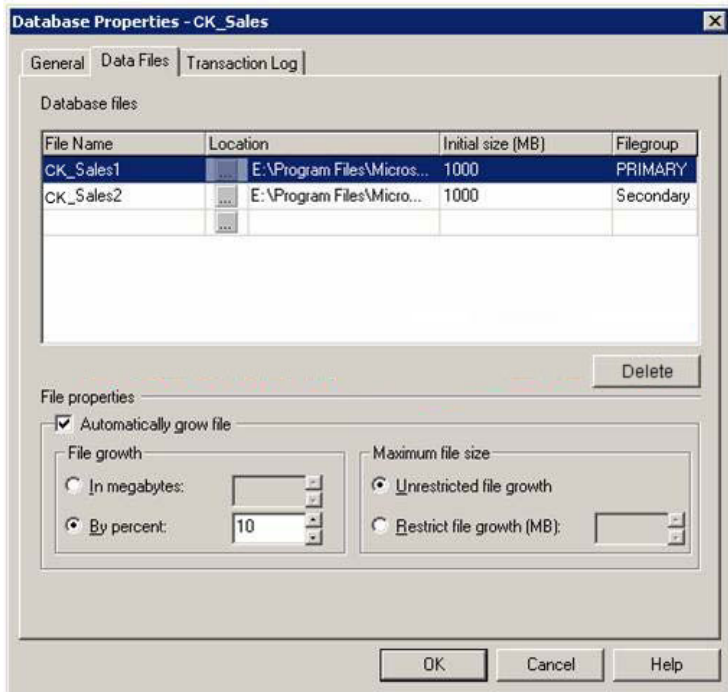
Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: database backups

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**QUESTION 26:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The following exhibit illustrates the database properties of the CK\_Sales database:  
Exhibit:



All Certkiller .com users interact with the database via a custom database application that enables certain Sales department members the ability to create new tables and indexes on those tables. Unfortunately the custom application does not make allowance for users to specify a filegroup in which to place new objects. To compound problems, you notice that drive E is running out of space. To this end you need to mitigate this problem so as to ensure that users will be able to continue creating tables and indexes in the database.  
What should you do?

- A. Drive E should be compressed.
  - B. Secondary should be specified as the default filegroup.
  - C. Additional files should be created in Secondary on drive E.
  - D. Primary filegroup's primary data file requires shrinking.
- Additional data files should be created in Primary filegroup on Drive E

Answer: B

Explanation: Since the Sales Department members use a custom application to access SQL Server 2000 and create new objects it stands to reason that all new objects are automatically placed in the default filegroup. Originally SQL Server designates the Primary filegroup as the default filegroup. It is also mentioned in the question and on the exhibit that another filegroup exists on drive E. as an administrator you can

specify another filegroup as the default filegroup. Thus if you specify Secondary as the default filegroup, then new objects will be created on that filegroup, which should contain sufficient free space because all new objects to date had been created only by using the custom application.

Incorrect answers:

A: SQL Server data files cannot reside on compressed drives.

C: The question pertinently states that only the custom application is used to create new objects. Thus it does not matter how many files were created in Secondary or how much free space was available on drive E. The custom application automatically places new objects on the default filegroup which is currently Primary.

D: The growth on the primary data file is not currently restricted. Thus the growth of the primary data file is the most likely reason which drive E is running out of space. Hence there is no free disk space that could be returned to the operating system by shrinking. And thus you also cannot create additional data files.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Physical Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Space Allocation and Reuse," "Managing Space Used by Objects"

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Physical Database Files and Filegroups," "Default Filegroups"

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### **QUESTION 27:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer.

Certkiller -DB01 hosts a database named CK\_Staff. The Full Recovery Model is implemented for the CK\_Staff database.

Certkiller .com acquires another company named TestLabs.com. You import staff data from the new company into the CK\_Staff database. Soon after ward you notice that Certkiller -DB01 is performing quite poorly. You discover that the transaction logs for the CK\_Staff database has increased by almost five times in size and has consumed most of the free disk space. To this end you need to recover disk space as soon as possible.

What should you do?

- A. The transaction log files should be backed up.
- B. Switch to the Simple Recovery Model.
- C. The DBCC SHRINKFILE Transact-SQL statement should be executed.
- D. The transaction log files should be truncated.

Answer: C

Explanation: The DBCC SHRINKFILE statement is used to reduce the log files to a specified size.

Incorrect answers:

A: Backing up the log file clears the log file but does not reduce the physical size of the transaction log file.

B: Switching to the Simple Recovery Model will not reduce the physical size of the transaction log file.

D: Truncation reduces the logical size of the transaction log file but it does not reduce the physical size of the transaction log file.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: DBCC SHRINKFILE statement

Microsoft SQL Server 2000 Books Online (2004), Index: transaction log backups

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "SQL Server Enterprise Manager Help," "Database Properties (Options tab)."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server architecture, "Physical Database Architecture," "Transaction Log Architecture," "Truncating the Transaction Log"

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "SQL Server Enterprise Manager Help," "Database Properties (General tab)."

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### **QUESTION 28:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows NT Server 4.0 and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer. Certkiller -DB01 hosts a database named CK\_Customers. The CK\_Customers database has almost completely filled the available space. An original size of 3 GB had been allocated when the data file was created, and this data file has since grown to 10 GB.

You this need to create another database, but you cannot add any new disks to the computer. There is no free space on the other drives. Thus you archive a portion of the older data to a decision-support system (DSS) database. Thereafter you remove the archived data from CK\_Customers. However, you find that you cannot create the new database since the size of the data file has not decreased. You need to ensure that you have enough disk space to create another database.

What should you do?

A. The DBCC SHRINKFILE (DataFile, 2000) statement should be executed.

B. The Read-Only option should be enabled on the CK\_Customers database.

C. The Transaction Log should be truncated.

D. The Space available parameter should be set to 1 GB on CK\_Customers database.

Answer: A

Explanation: The DBCC SHRINKFILE (DataFile, 2000) statement causes free space to be relocated to the end of the file and then reclaimed. This free space can then be returned to the operating system.

The remaining file size should then be approximately 2,000 MB which will accommodate the creation of a new database.

Incorrect answers:

B: Enabling the Read-Only option will permit users to query the database; it does not prevent them from manipulating data. Thus there would be no gain in space to create a new database.

C: Truncating the Transaction Log removes committed transaction from the log, but it does not reclaim free space that is available in the log. You need to shrink the log. However, this could result in poor database performance.

D: No gains in Space available parameter appears on the General tab in the database Properties sheet. This parameter cannot be configured.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: DBCC SHRINKFILE statement

Microsoft SQL Server 2000 Books Online (2004), Index: transaction log backups

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "SQL Server Enterprise Manager Help," "Database Properties (Options tab)."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server architecture, "Physical Database Architecture," "Transaction Log Architecture," "Truncating the Transaction Log"

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "SQL Server Enterprise Manager Help," "Database Properties (General tab)."

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### **QUESTION 29:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer.

Certkiller -DB01 hosts a database named CK\_Customers.

Certkiller -DB01 has its operating system located on drive C, its program files located on drive D and its only data file and the transaction log file located on drive E. Drive E has only 250 MB of free space remaining and Drive F has 8 GB of free space.

You received instruction to load 1 GB of new data into the existing tables in CK\_Customers. CK\_Customers is configured for the Bulk-Logged Recovery Model.

You need to make use of the BULK INSERT statement to insert the new data into

the existing tables on CK\_Customers. You thus need to prepare the database to accommodate the new data since there is only 250 MB of free space on the drive on which the data file and transaction log file is located.

What should you do?

- A. You need to allow unrestricted growth for the data file.
- B. A new transactional log file should be created on drive F.
- C. A new data file should be created in the Primary filegroup on drive F.
- D. A new filegroup should be created on drive F.

Answer: C

Explanation: It is mentioned that there are not enough free space on Drive D to accommodate the new data that must be loaded into the tables on CK\_Customers. Thus you need to create a new data file in the Primary filegroup on drive F since drive F contains 8 GB of free space. Space for new data is automatically allocated proportionately to the amount of free space available from both files.

Incorrect answers:

A: Allowing unrestricted growth for the primary file would not be an effective solution as drive E does not contain sufficient free space.

B: It is mentioned in the question that CK\_Customers is configured for the Bulk-Logged Recovery Model. This means that the bulk load operation will not be fully logged and the transaction log will not require much space for growth. Creating a new transactional log file on drive F will not accommodate new data. Data files and transaction log files cannot be placed on a compressed drive or a network drive.

D: Adding a new filegroup will not have any objects in it and the question states pertinently that the new data should be loaded into the existing tables on CK\_Customers. These existing tables are located in the primary file in the Primary filegroup.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Physical Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Space Allocation and Reuse," "Managing Space Used by Objects"

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### **QUESTION 30:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer. Certkiller -DB01 hosts a database named CK\_Customers. The CK\_Customers Categories table is illustrated in the following exhibit:

Exhibit:



Categories					
	Column Name	Data Type	Length	Allow Nulls	
🔑	CatID	int	4		
	CatName	nvarchar	15		
	Description	text	1	✓	
	Picture	Image	1	✓	

A Certkiller .com user named Mia Hamm is responsible for updating information on this table. She needs to delete the 'pizza' value in the CatName column since this item is no longer on the menu. Certkiller .com is replacing pizza with pasta which is currently being tested. Mia Hamm intends making use of the following statement to carry out her task:

```
UPDATE Categories SET CatName = NULL
```

Unfortunately she finds that the statement fails. You need to enable Mia Hamm to delete the 'pizza' value in the CatName column.

What should you do?

- A. An AFTER DELETE trigger must be created on the CatName column.
- B. The Mia Hamm user account should be granted permission to execute the CREATE PROCEDURE statement.
- Instruct Mia Hamm to create a stored procedure to replace the value in the CategoryName column with a NULL value.
- C. Modify the table to allow nulls in the CatName column.
- D. A PRIMARY KEY constraint should be defined on the CatName column.

Answer: C

Explanation: a Null value is not the equivalent of zero, an empty string or a string of zero length; instead it indicates that a particular value is unknown. In the exhibit you can see that the CatName column is not configured to allow null values. If Mia Hamm is to be permitted to delete the current value without having to specify a new value, you should change the definition of the CatName column to allow null values by executing the following statement:

```
ALTER TABLE Categories ALTER COLUMN CatName nvarchar (15) NULL
```

Incorrect answers:

A: Creating an AFTER DELETE trigger will result in the trigger only being fired after a user successfully executed a delete statement. But this is not possible at the moment since the CatName column does not allow for null values.

B: This option will not work because the CatName column currently does not allow null values and any stored procedure that attempted to replace the current value with a null value would thus fail.

D: A PRIMARY KEY constraint enforces entity integrity in a table. Though it can be created in a table, it will not work in this case since the primary key is defined on the CatID column. And also the column that is defined as a primary key cannot accept null values.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Logical Database Components: Constraints, Rules, Defaults, and Triggers."

Microsoft SQL Server 2000 Books Online (2004), Contents: Creating and Maintaining Databases", "Tables"

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**QUESTION 31:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000. You install SQL Server 2000 on a server named Certkiller -DB01 that runs on a Windows Server 2000. Certkiller -DB01 will contain a database named CK\_Sales that will be used to store Internet sales transactions from the company's e-commerce Web site. Certkiller -DB01 has seven 120 GB hard disk drives. Two of the hard disks are configured as a mirrored volume and contains the operating system and SQL Server 2000 is installation. Another two disks are configured as a RAID-1 volume and the rest are configured as a RAID-5 volume.

You to need to plan the placement of the database and the transaction logs. You want to implement fault tolerance and best performance for the CK\_Sales database. What should you do?

- A. Place the database on the RAID-5 array and the transaction log on the RAID-1 array.
- B. Place the database and the transaction log on the RAID-5 array.
- C. Place the database on the mirrored volume and the transaction log on the RAID-5 array.
- D. Place the database on the RAID-1 array and the transaction log on the RAID-5 array.

Answer: A

Explanation: The RAID-5 array provides striping with parity. Striping improves read/write operations across multiple disks while parity provides fault tolerance. Placing the database on the RAID-5 array would thus provide best performance and fault tolerance. Performance can be improved by placing the transaction logs on a separate hard disk. The RAID-1 array provides striping which improves read/write operations across multiple disks.

Incorrect answers:

B: RAID-5 array provides striping with parity. Striping improves read/write operations across multiple disks while parity provides fault tolerance. Performance can be improved even further by placing the transaction logs on a separate hard disk.

C: Mirrored volumes write the same data to two physical disks. This provides fault tolerance but does not provide improved performance. Fault tolerance and improved performance can be gained by placing the database on the RAID-5 volume.

D: The RAID-1 array provides striping which improves read/write operations across multiple disks but it does not provide fault tolerance.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Space Allocation and Reuse, "Managing space Used by Database files and Filegroups"

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Physical Database Files and Filegroups"

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**QUESTION 32:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

You are currently planning to implement a SQL Server 2000 database to store the Certkiller .com business information. You estimate that you will require approximately 8 GB of disk space to the database and approximately 3 GB of disk space for the transaction log file. The computer that you intend using to host the database contains two disks: Disk 0 and Disk 1.

1. Disk 0 is configured with two partitions

Each partition has 7 GB of free disk space.

Drive C and D is located on Disk 0.

Drive C hosts the Windows 2000 Server operating system files and the SQL Server program files.

1. Disk 1 is configured with two partitions.

Each partition has 7 GB of free disk space.

Drive E and F is located on Disk 1.

You need to ensure that you get the best performance and minimal administration and thus need a strategy to place the data files and the transactions log files accordingly.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

A. Create two transaction log files.

B. Create two data files.

C. Place one transaction log file on drive D and the other on drive E.

Then place the data file on drive F.

D. Place one transaction log file on drive E and the other on drive F.

Then place the data file on drive D.

E. Place one data file on drive D and the other on drive E.

Then place the transaction log on drive F.

F. Place one data file on drive E and the other on drive F.

Then place the transaction log file on drive D.

Answer: B, E

Explanation: For optimal write performance, a database's transaction log is best

placed on a separate physical disk. The transaction log is written to sequentially, isolating the transaction log from any other data or programs improves performance by allowing the disk read/write head to remain at the point it last wrote to. The next record will then be written from that point. There are no large enough partitions to accommodate the data, thus you will need to create two data files in a single file group as this will also minimize administrative overhead.

Incorrect answers:

A, C, D: There is no sense in creating two transaction log files since there is no benefit to be had in terms of performance. Only one transaction log can be written to at a time. Only when the first one is full, will a second log file be written to. Furthermore, by the time the second transaction log file becomes filled with data, the log will have to be truncated and then the first transaction log file will be written to etc.

F: The best write performance in this case can be obtained by placing one data file on drive D and the other on drive E and then placing the transaction log file on drive F.

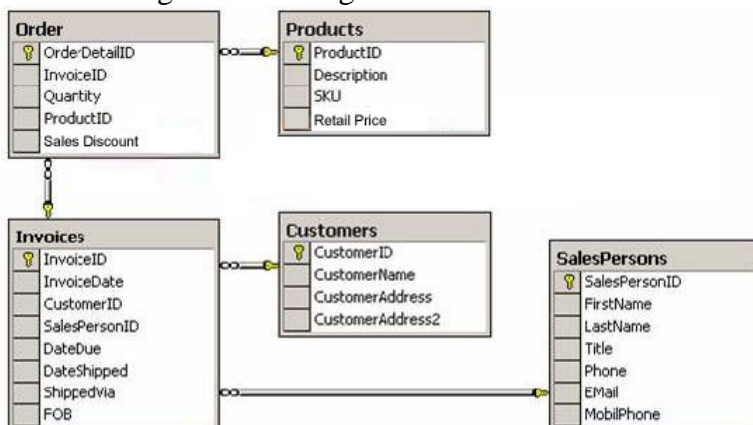
Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Space Allocation and Reuse, "Managing space Used by Database files and Filegroups"

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Physical Database Files and Filegroups"

### QUESTION 33:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.



A new Certkiller .com directive essentially decided to switch to commission-based salaries for the Sales staff. To this end the manager of the Sales department will run queries against the Invoices table to calculate the commission for each sales person. To ensure the success of the queries, you want to enforce the values that the SalesPersonID column in the Invoices table will accept.

What should you do?

- A. A foreign key constraint that references the CK\_Sales.SalesPersons table should be created.
- B. A check key constraint that references the CK\_Sales.SalesPersons table should be created.
- C. A DML trigger that references the CK\_Sales.SalesPersons table should be created.
- D. A unique constraint on the SalesPersonID column of the CK\_Sales.Invoices table should be created.

Answer: A

Explanation: A foreign key constraint that references the CK\_Sales.SalesPersons table will ensure that only SalesPersonIDs that exist in the SalesPersons table may be used in the Invoices table.

Incorrect answers:

B: A check constraint defines the value that can be entered into a column.

C: A DML trigger fires when a UPDATE, INSERT or DELETE statement is run against a table. This is not what is required.

D: A unique constraint ensures that a value in a column only appears once in that column. This is not what is required.

Reference:

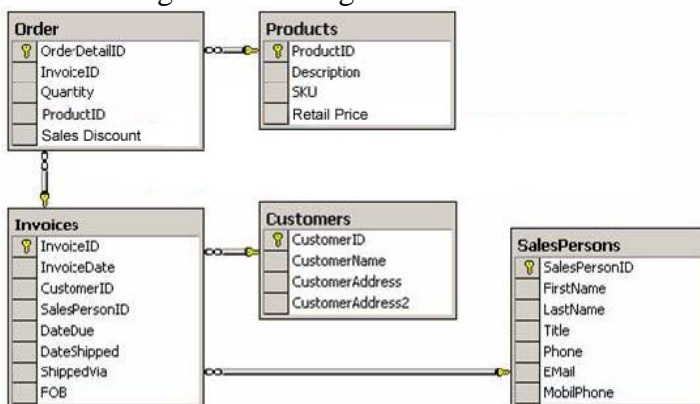
Microsoft SQL Server 2000 Books Online (2004), Index: constraints

Microsoft SQL Server 2000 Books Online (2004), Index: constraints, vs. DML triggers

Microsoft SQL Server 2000 Books Online (2004), Index: DML triggers

### QUESTION 34:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.



A PRIMARY KEY column has been declared on the ProductID column of the Products table and the InvoiceID column of the Invoices table. You are creating a table named Inventory to track stock levels. You need to ensure that combination of the DateShipped, ProductID and InvoiceID is unique for each row in the Inventory table.

What should you do?

- A. Create a rule.
- B. Create a table-level constraint.
- C. Create a UNIQUE constraint for each of the three columns.
- D. Create a CHECK constraint for each of the three columns.

Answer: B

Explanation: A table-level constraint allows you to ensure that a combination of columns is unique for each row in the table.

Incorrect answers:

A, D: A rule and CHECK constraints are used to ensure FOREIGN KEY integrity. They are not used to ensure that data in a column or combination of columns is unique.  
 C: UNIQUE constraints do not allow a value to be repeated in the column. This means that every value in the DateShipped column must be unique; each value in the ProductID column must be unique; and each value in the InvoiceID column must be unique.

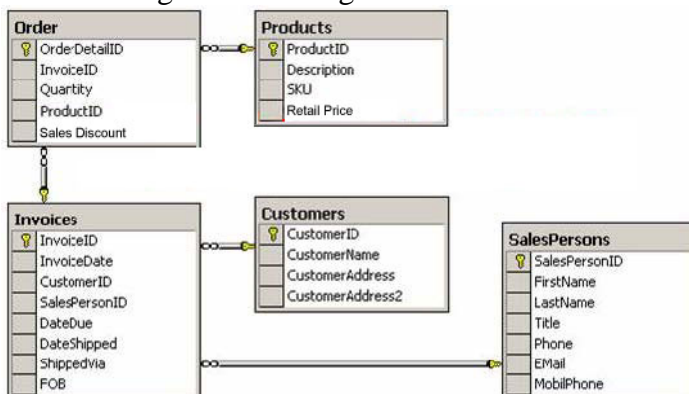
Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: constraints

Microsoft SQL Server 2000 Books Online (2004), Index: rules

### QUESTION 35:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.





Several products listed in the Products table have been discontinued. You want to delete the data from the Products table that refer to the discontinued products. You also want to copy data from the Invoices table that are related to the discontinued products to a separate table named DiscontinuedProductInvoices. You decide to use triggers to accomplish this task. The first trigger will delete rows from the Products table while the second trigger will copy data from the Invoices table to the DiscontinuedProductInvoices table. You want the second trigger to execute once the first trigger is executed.

What should you do?

- A. The sp\_configure 'nested triggers', 0 statement must be executed.
- B. The sp\_configure 'nested triggers', 1 statement must be executed.
- C. The CREATE TRIGGER statement must be executed and create nested triggers.
- D. The TRIGGER\_NESTLEVEL statement must be executed.

Answer: C, D

Explanation:

You can use the CREATE TRIGGER statement to create nested triggers. A nested trigger is initiated by another trigger.

Incorrect answers:

A, B: The nested trigger option of the sp\_configure command specifies whether nested triggers are permitted. Setting this option to 0 disables nested triggers while 1 enables nested triggers. By default nested triggers are enabled.

E: The TRIGGER\_NESTLEVEL returns the number of triggers executed for the statement that fired the trigger.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: nested DML triggers

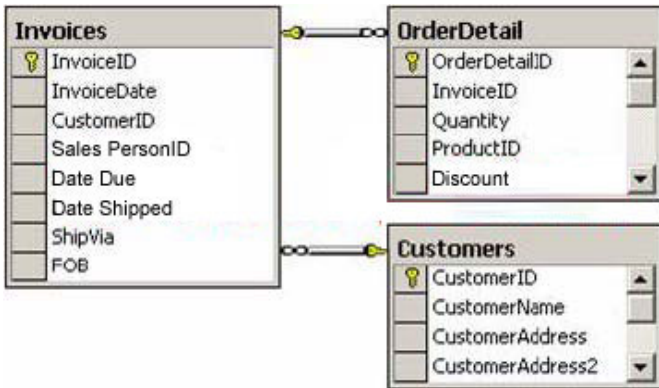
Microsoft SQL Server 2000 Books Online (2004), Index: nested triggers option

Microsoft SQL Server 2000 Books Online (2004), Index: TRIGGER\_NESTLEVEL function

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### **QUESTION 36:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Products. The tables in the CK\_Products database are shown in the following database diagram.



When products are shipped, the PrShipped table is updated and when products are received, the PrReceived table is updated. You want the InStock column in the Products table to be updated automatically when the PrShipped and PrReceived tables are updated.

What should you do?

- A. Nested triggers should be created on the PrShipped and PrReceived tables.
- B. UPDATE triggers should be created on the PrShipped and PrReceived tables.
- C. Nested triggers should be created on the Products table.
- D. UPDATE triggers should be created on the Products table.

Answer: B

Explanation: You should create UPDATE triggers on the PrShipped and PrReceived tables. Whenever these tables are updated, the trigger will fire. The trigger should be configured to update the InStock field in the Products table.

Incorrect answers:

- A, C: A nested trigger allows one trigger to initiate another trigger. This is not what is required. What are required are UPDATE triggers on the PrShipped and PrReceived tables that are configured to update the InStock column in the Products table.
- D: The UPDATE triggers should be created on the PrShipped and PrReceived tables and should be configured to update the InStock field in the Products table.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: nested triggers option

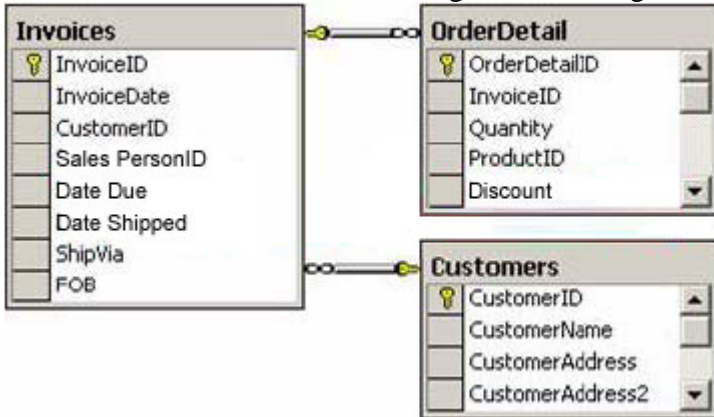
Microsoft SQL Server 2000 Books Online (2004), Index: TRIGGER\_NESTLEVEL function

Microsoft SQL Server 2000 Books Online (2004), Index: triggers

### QUESTION 37:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 has two RAID-5 arrays used for storing data files. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The CK\_Sales database is

also used for online transaction processing (OLTP). The tables in the CK\_Sales database are shown in the following database diagram.



Each of the tables in the CK\_Sales database contains in excess of one million rows. You have created a clustered index on each table. You have also created several nonclustered indexes on the Invoices and OrderDetail tables as these two tables are used very frequently. The OrderDetail and Customers tables are used in joins. You then decide to create two filegroups named Filegroup1 and Filegroup2 so as to optimize performance for the CK\_Sales database. You will place each filegroup on a separate RAID-5 array. You need to decide where to place the tables and indexes. What should you do? (Each correct answer presents part of the solution. Choose THREE.)

- A. The nonclustered indexes for the Invoices and OrderDetail tables should be placed on Filegroup1.
- B. The Invoices and OrderDetail tables should be placed on FileGroup1.
- C. The nonclustered indexes for the Invoices and OrderDetail tables should be placed on Filegroup2.
- D. The Customers table should be placed on Filegroup2.
- E. The OrderDetail and Customers tables should be placed on Filegroup2.

Answer: B, C, D

**Explanation:** You can improve database performance by placing the frequently used tables on one filegroup, and their nonclustered indexes on another. In addition, you should place the two tables that are used in joins on separate disks. The Invoices and OrderDetail tables are frequently used so they should be placed on one filegroup while their nonclustered indexes should be placed on another filegroup. The OrderDetail and Customers tables are used in joins. Therefore these two tables should be on different file groups. As the OrderDetail table is on Filegroup1, the Customers table should be placed on Filegroup2.

**Incorrect answers:**

A: You can improve database performance by placing the frequently used tables on one filegroup, and their nonclustered indexes on another filegroup. You only have the option of placing the Invoices and OrderDetail tables on FileGroup1; therefore the nonclustered indexes for the Invoices and OrderDetail tables should be placed on

Filegroup2.

E: You can improve database performance by placing the two tables that are used in joins on separate filegroups. The OrderDetail and Customers tables are used in joins; therefore these two tables should be on different file groups.

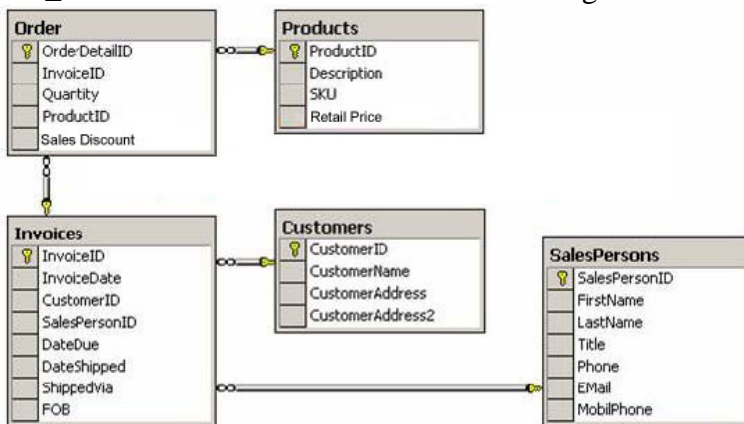
Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Administration Architecture": filegroups

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Administration Architecture": filegroups, index placement

### QUESTION 38:

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.



The CK\_Sales database currently makes use of a single filegroup. A new Certkiller .com directive essentially decided to switch to commission-based salaries for the Sales staff. To this end the manager of the Sales department will run queries against the Invoices table to calculate the commission for each sales person.

You then decide to partition the Invoices table by SalesPersonID and store each partition in a separate filegroup so as to improve the CK\_Sales database performance. In addition you also want to create a partitioned index for the Invoices table. There is however some steps that you need to take prior to creating a partition scheme.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. The partition function should be created.
- B. The index should be created.
- C. The filegroups should be created.
- D. The table should be created.

Answer: A, C

Explanation: You need to create the partition function and the filegroups that you want to use in the partition scheme before you can create the partition scheme.

Incorrect answers:

B, D: The partition scheme can be created prior to creating the tables and indexes.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Administration Architecture": partitions

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Administration Architecture": partitioned views

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### QUESTION 39:

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. CK\_Sales is configured with the default options. You have received instruction to load a significant amount of new data into the database. You then begin carrying out the task. Currently the data file and the transaction file reside on the same disk and you thus realize that the transaction log has grown from 200 MB to 1,000 MB. However, you still need to load more new data into CK-Sales and there is no more space on the hard disk.

You need to create more space to complete the task. To this end you need to perform a full database backup. Prior to performing a full database backup you need to perform preparatory tasks.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. The BACKUP LOG CK\_Sales WITH NO\_LOG statement must be executed.
- B. The DBCC SHRINKFILE (LogFile, 300) statement must be executed.
- C. The BACKUP DATABASE CK\_Sales TO Tape1 WITH NO\_TRUNCATE statement must be executed.
- D. You must switch to the Full Recovery model.
- E. You must switch to the Bulk-Logged Recovery model

Answer: A, B

Explanation: Because CK\_Sales was configured with the default options, it makes use of the Full Recovery model. This means that each transaction will be recorded in the full database backup that you performed after the bulk-load. Therefore you do not need that information in the log any longer. Thus to free space, you should

truncate the transaction log and then shrink it. The BACKUP LOG CK\_Sales WITH NO\_LOG statement is used to perform the truncating. The shrinking is performed by executing the DBCC SHRINKFILE (LogFile 300) statement. The target size of the transaction log can be 300 MB which will provide 700MB of free space.

Incorrect answers:

C: You cannot specify the NO\_TRUNCATE option in a BACKUP DATABASE statement. Specifying this option will result in the transaction log to be backed up without being truncated.

D: The CK\_Sales database is already configured with the default options. Thus it is not necessary to switch to the Full Recovery model.

E: Switching to the Bulk-Logged Recovery model will improve performance of future bulk-load operations and prevent the transaction log from growing excessively. However, you need to provide more space now. Thus you would still require to truncate the transaction log and shrink the transaction log file.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Administration Architecture", "Backup/Restore Architecture

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Truncating the Transaction log."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Shrinking the Transaction log."

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#### **QUESTION 40:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores data sales data for the company. The CK\_Sales database contains a Customers table. The Customers table has been created with a statement that is similar to the following:

```
CREATE TABLE Customers
(CustomerID int IDENTITY PRIMARY KEY NONCLUSTERED,
CompanyName nvarchar (50),
Address nvarchar (50),
City nvarchar (20),
PostalCode nvarchar (10),
Phone nvarchar (10))
```

Sales reports are generated on a weekly basis by the Sales Department members. These reports identify customers who purchased products and the employees who made the sales. Part of the identification of customers on these reports usually includes the CompanyName column. You received a complaint from the users stating that all queries that involve the Customers table executes too slow. You need to improve the performance of queries on the Customers table.

What should you do?



- A. A clustered index should be created on CompanyName.
- B. The index on CustomerID should be changed to clustered.
- C. A clustered index should be created on Address.
- D. A clustered index should be created on City.
- E. A clustered index should be created on PostalCode.
- F. A clustered index should be created on Phone.

Answer: B

Explanation: Query performance can be improved if one configured a clustered index. Clustered indexes order the rows in a table at a physical level according to the values in the column or columns on which the clustered index is created. Only one clustered index can be created on a table. For CompanyName to be included in the Sales Department members' reports, the Customer table is likely to be joined on the CustomerID column to other tables that have foreign keys that reference the CustomerID column. These tables are usually the Invoices and Order tables. This will speed up queries if a clustered index was created on the CustomerID column in the Customers table. CustomerID is a primary key column. The primary key column is created on the clustered index by default in SQL Server 2000. Thus if you change the CustomerID column index to clustered, it will result in the organization of the rows assigned to each customer, improving query performance.

Incorrect answers:

A, C, D, E, F: You can only have one clustered index on a table. Having the clustered index on the CustomerID column will improve query performance.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "SQL Indexes", "Table Indexes."

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#### **QUESTION 41:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server, all client computers run Windows 2000 Professional and all database servers run SQL Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

Certkiller -DB01 contains a database that consists of two files:

1. The primary file belongs to the Primary filegroup.

The primary file is located on drive C.

2. The secondary file belongs to a user-defined filegroup named Filegroup1.

Filegroup1 is defined as the default filegroup.

The secondary file is located on drive D.

The operating system files are also located on drive C. Drive D is running out of space. To this end you decide to add a new disk to Certkiller -DB01 to enable you to add more data to the database.

What should you do?

- A. The maximum allowed size for the secondary file should be reduced on the Properties sheet for the database.
- B. A new file within the Primary filegroup should be created on the new disk.
- C. A new file within Filegroup1 should be created on the new disk.
- D. A new file in a new filegroup should be created on the new disk.

Answer: C

Explanation: Files that belong to the same filegroup fill with data in a way that is proportionate to the amount of free space that exists in each file. The new file within Filegroup1 will take the largest portion of new data because it is empty. Thus the existing file will take less data. Overtime both the files on Filegroup1 will fill approximately the same time.

Incorrect answers:

A: You cannot reduce the maximum allowed size for the secondary file on the Properties sheet for the database.

B: All system tables reside in the Primary filegroup which also serves as the default filegroup after the installation of SQL Server. If files in Primary filegroup run out of space, then the database will become unmanageable. In this case however, the disk that hosts the Primary filegroup is not running out of space, thus it is not necessary to create a new file within Primary and place it on a new disk.

D: Creating a new filegroup will not result in the automatic filling of your data into the new filegroup until new objects on that filegroup are created or until existing objects are moved to it.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Physical Database Architecture", "Physical Database Files and Filegroups."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, Physical Database Architecture", "Space Allocation and Reuse," "Managing Space Used by Objects"

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## **QUESTION 42:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network has started making use of a database that has a SalesPersons table storing business information. The Certkiller .com SalesPersons table is shown below:



	SalesPersonID
	First Name
	Last Name
	Title
	Phone
	EMail
	MobilePhone

The Certkiller .com network users use the SalesPersons table to record transactions and generate various reports. The Certkiller .com management has recently noticed that performance has degraded noticeably. You are required to speed up the transaction recording and report generating.

What should you do?

- A. Join hints should be added to all queries for the SalesPersons table.
- B. A DROP INDEX statement should be executed.
- C. The Auto update statistics database option should be disabled.
- D. The structure of the data should be normalized and create the appropriate indexes.

Answer: D

Explanation: In the scenario you should remember that to efficiently manage online transaction processing, you require normalizing the database. The normalization of a database is used to minimize redundancy in a database resulting in fewer tables with columns to manage.

Incorrect Answers:

A: You should not consider making use of joint hints in the scenario because the statement is used in FROM clauses of DELETE, SELECT and UPDATE statements.

B: This option should not be considered in the scenario as you would be dropping the specified indexes. Properly configured indexes are sure to reduce the amount of time for reports to be generated.

C: This option should not be used in the scenario because the administrator would then be required to manually update statistics when new data is added to the database.

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### QUESTION 43:

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are responsible for administering the databases on the Windows 2000 server which has tables that are enabled for full-text indexing. The Certkiller .com network users can successfully run full-text queries. You additionally started regularly backing up all databases on the Windows 2000 server.

During the course of the business day the Windows 2000 Server suffered a hardware failure and the entire computer is lost. Certkiller .com has decided to acquire a new computer with identical hardware and you install the appropriate

software and restore the databases from the latest backups. You later decide to test the database functionality and discover that all of the full-text queries fail. You are required to ensure that the previous functionality of all databases is restored. What should you do?

- A. Full-text indexing should be disabled for each table that was originally enabled for full-text indexing. A new full-text catalog should be created for each table and perform a full population of each catalog.
- B. A new full-text catalog should be created for each table that was originally enabled for full-text indexing and perform a full population of each catalog.
- C. A full population of each table's full-text catalog should be performed.
- D. Each full-text catalog that existed before the disaster should be rebuild and perform a full population of each catalog.

Answer: D

Explanation: In the scenario you should remember that when you restore the database it is restored with knowledge of full-text catalogs which are not included in the backups but are stored in system files outside SQL server. To successfully achieve the scenario you should then perform a full population of each catalog.

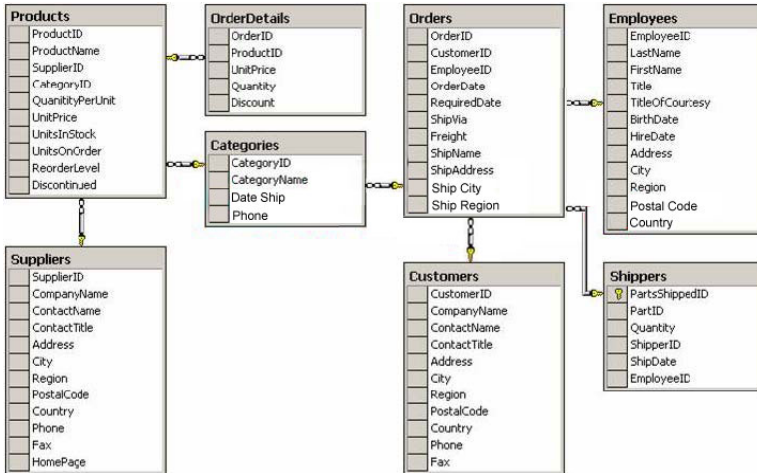
Incorrect Answers:

- A: You should not consider using this option because you cannot disable full-text indexing for a table if the catalog that the table is configured to use no longer exists.
- B: In the scenario you should not use this option as you should first remove the table from its original catalog to configure a table to use a different catalog.
- C: You should not use this option in the scenario because you can not repopulate a nonexistent catalog.

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#### **QUESTION 44:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com makes use of a SQL Server 2000 database to record the business transactions. Certkiller .com has configured the database with the default options and is depicted below:



The recent reports of Certkiller .com should be generated monthly which indicate the amount of sales produced by each employee. Below is a sample query shown to retrieve the data:

```
SELECT LastName, FirstName
```

```
Total = SUM (p.UnitPrice * (1 - od.Discount) * od.Quantity)
```

```
FROM Employees e JOIN Orders o ON e.EmployeeID = o.EmployeeID
```

```
JOIN OrderDetails od ON o.OrderID = od.OrderID
```

```
JOIN Products p ON od.ProductID = p.ProductID
```

```
WHERE DATEPART (mm, OrderDate) = 7 AND DATEPART (yy, OrderDate) = 2000
```

```
GROUP BY LastName, FirstName
```

```
ORDER BY LastName, FirstName
```

The result of the query leaves the network users reporting that their queries are slow. You are required to improve the performance of the queries.

What should you do?

- A. Nonclustered indexes should be created on all foreign key columns.
- B. The transaction log file and the data files should be placed on the same physical drive.
- C. The UPDATE STATISTICS statement should be executed against the Employee and Orders tables.
- D. A view should be created that is required to generate the monthly sales report.

Answer: A

Explanation: In the scenario you should remember that Foreign keys are columns that define relationships between tables. By adding indexes on foreign key columns the performance of the queries can be substantially improved.

Incorrect Answers:

B: You should not consider making this move in the scenario as this would not improve the performance of the query.

C: You should remember in the scenario that by default the update statistical information option is enabled.

D: In the scenario you should not consider creating a view because it is a predefined query which does not accept any parameters.

**QUESTION 45:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You have recently received instruction from the Certkiller .com CIO to monitor the database performance and usage as he is concerned that the transaction log may become full. The results of the monitoring show that the number of transactions per time period is not increasing and you performed frequent transaction log backups using the default backup settings. The amount of data contained in the log file still continues to increase. You are required to select which of the following is the most likely reason for this?

- A. The trunk.log on chkpt database option has been disabled.
- B. The DBCC SHRINKFILE statement was not run.
- C. The DBCC SHRINKDATABASE statement was not run.
- D. A long-running active transaction is contained in the log.

Answer: D

Explanation: In the scenario you should remember that when backing up the transaction log using the default options only the inactive part of the log will be truncated and the active part of the log can not be truncated.

Incorrect Answers:

A: You should not use this option in the scenario because this has the same effect as using the Simple Recovery model.

B, C: This option may be used to shrink the size of the database files providing that enough space within the files for shrinking exists.

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**QUESTION 46:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com network currently uses a SQL Server 2000 database to store detailed information about sales transactions. The Certkiller .com sales director frequently has to run ad hoc queries against the database to determine the total amount of orders placed by customers and the region from which the orders are placed in a given month.

The Certkiller .com sales director reports that the query performance is slow and he does not want to write complex queries that specify joins in order to retrieve the data. You decided that you do not need to build a data warehouse but you want to improve the response times of the queries.

What should you do?



- A. The aggregated data should be calculated and maintain with the help of triggers.
- B. The query governor cost limit option should be disabled.
- C. The SET SHOWPLAN\_TEXT option should be enabled.
- D. An application should be created in which the queries have been properly optimized.

Answer: A

Explanation: In the scenario you should remember the Aggregate function can be used to calculate aggregated values from detailed information. You should also remember that additional columns can be added for the prorogated data, to ensure data is accurate you can use triggers that will detect changes made to the tables.

Incorrect Answers:

- B: You should not consider this option in the scenario as no query will be prevented from being executed no matter how much resources will be consumed.
- C: This option should not be used in the scenario because it is used to force SQL to show you each step in the execution of a query without actually executing the query.
- D: This option should not be considered in the scenario because the application will not meet the requirements of the Certkiller .com sales director.

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#### **QUESTION 47:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com has recently implemented a SQL Server 2000 database which is used to store business information and manage daily activities. You have received instruction to implement a new application. When you test the application error 1205 is generated.

This error is sometimes returned by the new application at other times the network users report that they receive it. You are required to ensure that the new application works properly and that users are not adversely affected.

What should you do?

- A. The transaction log should be backed up.
- B. The new application should be configured to use autocommit mode.
- C. The number of system locks should be increased.
- D. The value that is specified in the min memory per query option should be decreased.

Answer: B

Explanation: In the scenario you should always remember that a deadlock occurs when two connections to SQL Server block each other by holding locks on information that is required. This is the reason why the error 1205 is received at times by the application and reported by the users.

Incorrect Answers:

A: This option should not be used in the scenario although it is a good practice when administrating databases.

C: This option should not be used in the scenario it should only be considered when the error 1204 was received which was not so in the scenario.

D: This option should not be used in the scenario as it will not guarantee that the query will execute properly in the scenario.

---

**QUESTION 48:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com currently makes use of a SQL 2000 database for storing business information. The server hosting the database is configured with the default settings. The network users of Certkiller .com make use of a client application programmed to call three stored procedures. You have recently received instruction from the network CIO to bulk-load a vast amount of new data into the database.

In order to start the process you are required to first drop any existing indexes on the table involved in the bulk-load. You later should bulk-load the new data and recreate the indexes. The Certkiller .com network users started reporting that the results of the bulk-load have caused the client application used to query the database to become unacceptably slow. You are required to improve the performance of the application.

What should you do?

- A. The stored procedure used by the application should be recompiled.
- B. Additional indexes should be added to the queried tables.
- C. Statistics should be manually created in the database.
- D. Update statistics should be manually created in the database.

Answer: A

Explanation: In the scenario you should remember that the stored procedure worked fine before the bulk-load there for the stored procedure should be recompiled in order to make a new execution plan for the application.

Incorrect Answers:

B: You should not consider taking this action in the scenario because the action taken will not ensure improved performance using the application.

C, D: In the scenario you should always remember that there is no need to manually force statistics to be update as you will still require recompiling the stored procedures.

---

**QUESTION 49:**

You work as the network database administrator at Certkiller .com. The

Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com has recently decided to expand its business to the Internet by implementing a Web-site which users can use to purchase the products.

Certkiller .com has enabled the customers to be able to order products in stock and place orders for products not currently in stock. The network users using the Web-site search for merchandise by scrolling through a list in their Web browsers.

The Internet community has recently complained that the application is very slow.

The SQL Server 2000 database that Certkiller .com uses to store product information is extremely large. You decide to use SQL Profiler to capture a trace and you discover the application issues the following statement:

SELECT \* FROM Products

You are required to improve the performance of the application.

What should you do?

- A. The application should be configured to use a WHERE clause in the query.
- B. The application should be configured to use a GROUP BY clause in the query.
- C. Separate views should be created for the most popular products.
- D. The Products table should be specified as read-only.

Answer: A

Explanation: In the scenario you should remember that using the SELECT \* FROM Products statement does not specify any search criteria limiting its output. By using the WHERE clause in the query you would be limiting the query by imposing a boundary which will reduce the output and improve the performance of the application.

Incorrect Answers:

B: This option should not be used in the scenario because it is used to specify the columns by which rows must be grouped when aggregate functions are included in the select list.

C: This option should not be used in the scenario because this will not improve the performance of the application as required by the customers.

D: This option should not be used in the scenario because this will not allow the modification of the data and can only be specified at the filegroup or database level.

---

### **QUESTION 50:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com currently uses a SQL Server 2000 database to store business information. The database used consists of two filegroups: CK\_FGR01 and CK\_FGR02 and no tables span the filegroups. Recently Certkiller .com network

users report that he made an incorrect change to the Bill table residing on CK\_FGR02.

You are required to restore the database from the backups to the state it was before the wrong transaction was made. The Certkiller .com network have configured their databases to use Full Recovery Model by default. The full database backup is made nightly and transaction log backups are made every hour.

What should you do? (Choose all that apply.)

- A. The transaction log should be truncated.
  - B. The database should be restored from the latest full database backup with recovery.
  - C. The active log backup should be restored with recovery.
- The log backups that were made since the last database backup without recovery should be restored.
- D. CK\_FGR02 should be restored from the latest full database backup without recovery.
  - E. The active transaction log should be backed up.

Answer: C, D, E

Explanation: In the scenario you should immediately backup the active transaction log and then restore CK\_FGR02 from the latest full database backup and specify WITH NORECOVERY to apply transaction log backups after the database is restored.

Incorrect Answers:

A: There is no need to perform this action in the scenario because this is done automatically in the scenario.

B: There is no need in the scenario to have the entire database restored from the latest full database backup as this will not help achieve the scenario objective.

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### **QUESTION 51:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com maintains a database that is used by members of the manufacturing and distribution departments. Certkiller .com has the two departments share three tables in the database. Certkiller .com has data that pertains to the manufacturing department maintained separately from the data pertaining to the distribution department. The information contained in the database is dynamic.

Certkiller .com's current backup strategy consists of performing full database backup on Sunday and a differential backup on each Monday, Wednesday and Friday with the transaction log backup twice per day. Recently you discovered that the database has grown in size making it impossible for you to complete the backups in a timely manner. You are required to design a new backup strategy to accommodate the large database which requires the minimum amount of administrative effort. Your solution should additionally be able to restore the

database to a point in time while data loss is minimal.  
What should you do?

- A. All the system tables and shared tables should be placed in the Primary filegroup. All the tables pertaining to the manufacturing department should be placed into a new filegroup named CK\_FGR02. All the tables that pertain to the distribution department should be placed into a new file group named CK\_FGR03. A different filegroup should be back up each night in a round-robin fashion and finally backup the transaction log several times a day.
- B. All the system tables and shared tables should be placed in the Primary filegroup. All the tables pertaining to the manufacturing department should be placed into a new filegroup named CK\_FGR02. All the indexes that pertain to those tables should be placed in to a new file group named CK\_FGR03. All the tables that pertain to the distribution department should be placed into a new file group named CK\_FGR04. All the indexes that pertain to those tables should be placed in to a new file group named CK\_FGR05. The primary filegroup should be back up on Monday nights, CK\_FGR02 and CK\_FGR04 on Wednesday nights and CK\_FGR03 and CK\_FGR05 file groups should be back up on Friday nights.
- C. A differential backup should be performed every Monday and Friday whilst you perform transaction log back ups twice every day.
- D. A full database back up should be performed on Saturday of the tables that pertain to the manufacturing department. A full database backup should be performed on Sunday of the tables that pertain to the distribution department whilst Monday, Wednesday and Friday are used for transaction log back ups.

Answer: A

Explanation: You should remember in the scenario that a filegroup is a collection of related files which can be administered as a single unit. You would be capable of organizing data into different filegroups which can be back up at different times. The data in a filegroup does not require being split into independent subsets.

Incorrect Answers:

- B: You should not consider this action in the scenario it could cause data inconsistencies in the future for Certkiller .com.
- C: This option should not be considered for use in the scenario because it is only possible to backup filegroups databases and files.
- D: In the scenario you should not use this option because full database back ups make a copy of an entire database you can not specify certain tables only.

---

## **QUESTION 52:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com has recently implemented a SQL Server 2000 database that is used to

store the business information. The database used by Certkiller .com uses many tables some of which are quite large. Certkiller .com stores data files on separate physical disks for performance reasons. Certkiller .com knows it would take too long for a full database backup so you want to backup only files. The backup schedule you use is shown below:

Filegroup	Location	Schedule
Primary	Disk 2	Mondays and Thursday at 1:00 A.M. Daily transaction log backups each hour during regular business hours
Secondary	Disk 2	Tuesday and Fridays at 1:00 A.M. Daily transaction log backups each hour during regular business hours
Tertiary	Disk 3	Wednesdays and Saturdays at 1:00 A.M. Daily transaction log backups each hour during regular business hours

Certkiller .com has discovered at 12:30 P.M. that the disk hosting the primary data file and other data files has failed. You are required to restore the database to the point of failure.

What should you do?

- A. The active transaction log should be backed up then you should restore the latest backup of each damaged file. You should next restore all the transaction log backups starting from the earliest restored file backups. Finally you should recover the database.
- B. The data base can not be restored to the point of failure it is impossible because the primary data file has been lost.
- C. The data base can not be restored to the point of failure it is impossible because the primary data file has been lost and no full database backup is available.
- D. The active transaction log should be backed up then you should restore the latest backup of each damaged file. You should next restore all the transaction log backups starting from the most recent restored file backups. Finally you should recover the database.

Answer: A

Explanation: In the scenario you should remember to recover a database to the moment of failure you must have a backup of the active transaction log. For this reason it is important to provide the utmost fault tolerance for the transaction log.

Incorrect Answers:

B, C: This option should not be considered in the scenario because this is possible and there is a full database backup that exists in the scenario.

D: This option should not be used in the scenario as you would only partly be adhering to the scenario objective at hand.

---

### QUESTION 53:

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server



and all client computers run Windows 2000 Professional.

Certkiller .com has recently implemented a SQL Server 2000 database with full-text indexing enabled on the five largest tables in the database as well as full-text queries against those tables which function properly. You have performed regular backups of the database. The server hosting the database for Certkiller .com has failed after several months.

Certkiller .com management has decided to restore the database to another server in the network. The database was successfully restored using the most recent backups. When you test the database functionality you discover that all the full-text queries fail. You are required to restore the database functionality. What should you do?

- A. A full population of all full-text catalogs should be performed.
- B. The full-text catalog that existed before the disaster should first be rebuild and then restore them from the latest backup.
- C. The full-text catalog that existed before the disaster should be rebuilt.
- D. The full-text catalogs should be restored from the latest backups.

Answer: D

Explanation: In the scenario you should always remember that the Full-text indexes enable database users to perform sophisticated phrase searches using Microsoft search. The indexes are stored in full-text catalogs that reside independently from SQL Server databases.

Incorrect Answers:

- A: This option should not be used in the scenario as you would be consuming too much time by doing the task in this manner.
- B: There is no need for this to be done in the scenario as a full backup of the existing catalog already exists in the scenario.
- C: If you do not have a backup of the full-text catalog that would be the only time appropriate for performing this action.

---

#### QUESTION 54:

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are responsible at Certkiller .com for performing regular backups of the SQL server 2000 database. The schedule you use for the backup strategy is shown below:

Backup Type	Schedule
Full	1:00 A.M. – on Sundays
Differential	6:00 P.M. – daily
Transaction Log	10:00 A.M., 12:00 P.M., 2:00 P.M., 4:00 P.M. - daily

Certkiller .com has discovered that Thursday night the disk on which the data file resides failed at 3:32 P.M. You are required to restore the database as close to the

moment of failure as possible.  
What should you do?

- A. The active transaction log should first be backed up then restore the full back up that was made at 1:00 A.M. on Sunday. You should then restore the differential backup made at 6:00 P.M. on Wednesday and restore the transaction log backup that was made on Thursday at 10:00 A.M., 12:00 P.M. and 2:00 P.M. You should then finally restore the active transaction log.
- B. You should first backup the active transaction log then restore the full backup made at 1:00 A.M. on Sunday. You should then restore the transaction log backups that were made on Thursday at 10:00 A.M., 12:00 P.M. and 2:00 P.M. You should finally restore the active transaction log.
- C. You should first backup the active transaction log then restore the differential backup made at 6:00 P.M. on Wednesday. You should then restore the transaction log backups that were made on Thursday at 10:00 A.M., 12:00 P.M. and 2:00 P.M. You should finally restore the active transaction log.
- D. You should first backup the active transaction log then restore the full backup made at 1:00 A.M. on Sunday. You should then restore the differential backup made at 6:00 P.M. on Wednesday. You should then restore the transaction log backups that were made on Thursday at 10:00 A.M., 12:00 P.M. and 2:00 P.M.

Answer: A

Explanation: In the scenario you are required to restore the database to the moment of failure. Since the active part of the transaction log records all the transactions you should immediately backup the active log to comply with this requirement.

Incorrect Answers:

B, C, D: In the scenario the other backup strategies that are shown should no be used in the scenario because this would not achieve the scenario objective of restoring the database to the moment of failure.

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### **QUESTION 55:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all database servers run SQL Server 2000. The Certkiller .com network contains a database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales and product data.

Several data capturers enter data into the CK\_Sales database everyday. The Full Recovery Model is implemented for the CK\_Sales database. A Full backup of the CK\_Sales database is performed every Saturday at 12:00 P.M., a differential backup is performed every week night at 12:00 P.M., and a backup of the transaction log is performed every two hours during the working day.

On Thursday morning you discover that Certkiller -DB01 suffered a hard disk failure sometime before the previous day's differential backup was performed. You replace the failed hard disk and restore the operating system and application on

Certkiller -DB01. You now need to restore the CK\_Sales database as quickly as possible.

What should you do?

- A. Restore the last Full backup.  
Restore the last differential backup.  
Restore all the transaction logs in order.
- B. Restore the last Full backup.  
Restore all the transaction logs in order.
- C. Restore the last Full backup.  
Restore the differential backup since the last Full backup.  
Restore all the transaction logs since the last differential backup.
- D. Restore the last Full backup.  
Restore the last differential backup.  
Restore all the transaction logs since the last differential backup.

Answer: D

Explanation: The Full Recovery Model is implemented for the CK\_Sales database and you've performed a Full backup on Saturdays, daily differential backups and transaction log backups every two hours. In the Full Recovery Model, transactions in the transaction log are not cleared until they are backed up. Therefore you need to restore the last Full backup, restore the last differential backup, and restore all the transaction logs since the last differential backup.

Incorrect Answers:

- A: You do not need to restore all the transaction log backups, only the transaction log backups since the last differential backup.
- B: You could restore all the transaction log backups since the last Full backup but it would be quicker to restore the last differential backup performed since the last Full backup and then only the transaction log backups since the last differential backup.
- C: A differential backup will backup all data that has changed since the last Full backup. Therefore you only need to restore the last differential backup.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: restoring differential backups

Microsoft SQL Server 2000 Books Online (2004), Index: restoring transaction logs

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### **QUESTION 56:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com recently started using a SQL Server 2000 database to store business information. The database on the server was created with the default options. You are responsible for regularly loading large amounts of data to the database regularly. As a result of these actions you discover that the transaction log file

residing on drive D: is increasing in size.

You have received instruction to start performing regular backups of the transaction log and occasionally shrink the log over a period of time. You later discover that the actions taken do not prevent the transaction log file from increasing in size. You want to ensure that you prevent the transaction log from consuming the entire disk space. You plan to replace the disk on which the log resides with a larger one. The solution you are working on should not interfere with your ability to restore the database to a point in time.

What should you do?

- A. You should switch to the Bulk-Logged Recovery model and perform a full or differential database backup after each bulk-load operation whilst you continue to perform frequent transaction log backups.
- B. You should switch to the Simple Recovery model and perform a filegroup backup after each bulk-load operation whilst you continue to perform frequent transaction log backups.
- C. The Select into/bulkcopy database option should be disabled and continue to perform frequent log backups.
- D. Drive D: should be compressed and continue to perform frequent transaction log backups.

Answer: A

Explanation: You should remember in the scenario that the databases can be configured with recovery models that establish the manner in which transactions are logged and the transaction log is truncated. Employing this recovery model ensures the database is fully recoverable as all database operations are logged and the transaction log is never automatically truncated.

Incorrect Answers:

- B: You should not consider using this option in the scenario as this would enable the transaction log to become useless for point-in-time recovery as it would be truncated on each checkpoint.
- C: You should not implement this option in the scenario as it basically is equivalent of implementing the Bulk-Logged Recovery model.
- D: You should not consider making use of this option in the scenario because this action will not achieve the scenario objective.

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### **QUESTION 57:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com makes use of a SQL Server 2000 database residing on a Windows 2000 Server computer. The server used for the SQL instance hosts the master copy of the Certkiller .com database which is frequently updated and extensively queried.

Certkiller .com has members of the financial department who register transactions continuously whilst members of the marketing department update the inventory products as shipped or received.

Certkiller .com has given the responsibility of executing queries to determine future sales prospects to the Sales department. Certkiller .com requires the database to be operational at all times. You have recently discovered that the server is overloaded and want to fix the situation.

What should you do?

- A. The Simple Recovery model should be enabled.
- B. The frequency of the Certkiller .com backups should be increased.
- C. Log shipping should be disabled.
- D. A standby server should be implemented.

Answer: D

Explanation: You should remember in the scenario that we are required to have the database operational at all times. This objective can only be achieved when you consider installing the standby server in the network as this enables the database to be operational at all times.

Incorrect Answers:

A: This option should not be used in the scenario because this recovery model will only restore the database to the point of the last full or differential database backup and will not avoid the downtime.

B: This option should not be used in the scenario even though it is a good practice the downtime involved in restoring the server would not be avoided.

C: This option should not be used in the scenario because the implementation requires too much administrative effort.

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### **QUESTION 58:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com recently started using a SQL Server 2000 database to store business information which is used for online transaction processing. You have received instruction periodically to load vast amounts of data into the database from test files. The Certkiller .com network management do not want any data to be lost in the event of a server failure.

You are busy designing the Certkiller .com network disaster recovery plan. You should be able to restore the database up to the moment of failure and load the new data as quickly as possible into the new database.

What should you do? (Choose all that apply.)

- A. The Full Recovery model should be used.

- B. The Bulk-Logged Recovery model should be used.
- C. The Simple Recovery model should be used.
- D. Full database backups should be performed.
- E. Differential database backups should be performed.
- F. Transaction log backups should be performed.

Answer: B, D, F

Explanation: In the scenario you should always remember that the Recovery models provide a geographical method of setting database options which determine the extent to which data loss would be incurred.

Incorrect Answers:

A: This option should not be considered in the scenario for use because this would decrease performance of bulk-loads.

C: You should not consider using this option in the scenario as this would enable the transaction log to become useless for point-in-time recovery as it would be truncated on each checkpoint.

E: This option should not be used in the scenario because you should first perform a Full backup before performing a differential backup.

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### **QUESTION 59:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are responsible for managing a SQL 2000 database used to store the business information of Certkiller .com. You have recently received instruction from the CIO to develop a new backup strategy. The backup strategy you are developing should keep downtime to a minimum.

In the event of a database failure the database should be restored quickly as possible. You received additional instruction that the database must be restored as close as possible to the failure point. Certkiller .com has configured their databases to use the Full Recovery model.

What should you do?

A. A full database backup should be performed every Friday night whilst you perform differential backups each Monday through Thursday night.

You should finally perform transaction log backups every hour of business hours.

B. A differential backup should be performed each Friday night whilst you perform transaction log backups each Monday, Wednesday and Saturday night.

C. A full database backup should be performed every other Friday night whilst you perform differential backups every Monday.

You should finally perform a filegroup backup at the end of each business day.

D. A full database backup should be performed monthly whilst you perform transaction log backup each Friday.



Answer: A

Explanation: In the scenario you should always remember that by implementing disaster recovery strategies that uses full database backups with transaction log backups significantly reduces the time involved for restoring the database to the moment of failure.

Incorrect Answers:

B: In the scenario differential backups should be performed Monday through Thursday night as differential backups backup the information that has changed since the last differential backup.

C: You should avoid performing these actions as they will only be responsible for creating additional administrative overhead.

D: In the scenario you should remember that full database backups should be run regularly to ensure restoration to the moment of failure.

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### **QUESTION 60:**

You work as the database administrator at Certkiller .com. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows 2000 Server computer. Certkiller -DB01 hosts a database named CK\_Projects. The Simple Recovery Model is implemented for the CK\_Projects database.

You need to implement a disaster recovery plan for the CK\_Projects database. Your disaster recovery plan must ensure that data can be backed up as quickly as possible and that data can be recovered as quickly as possible following a disaster. You must also ensure that no more than three hours data is at risk at any one time. You plan to perform a full backup every Saturday at 12:00 P.M. You must now plan the backup schedule that will run during the week.

What should you do?

- A. Schedule a transaction log backup every three hours, Monday through Friday.
- B. Schedule a differential backup at 12:00 P.M., Monday through Friday and schedule a transaction log backup every three hours between differential backups.
- C. Schedule a differential backup every three hours, Monday through Friday.
- D. Schedule a full backup at 12:00 P.M., Monday through Friday and schedule a differential backup every three hours between differential backups.

Answer: C

Explanation: To ensure backups can be performed quickly, you need to implement differential backups every three hours. With differential backup ups, only the data that changed since the last Full backup will be saved. This means that you only need the last full backup and the last differential backup to restore the data.

Incorrect Answer:

A, B: The Simple Recovery Model does not transaction log the backups as it truncates

the transaction logs before the transaction logs are backed up. You must change the Recovery Model to Full or Bulk-logged in order to backup the transaction logs.  
D: Performing full backups every day would increase backup times.

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**QUESTION 61:**

You work as the database administrator at Certkiller .com. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a 2000 Windows Server computer. Certkiller -DB01 hosts a database named CK\_Orders. Several data capturers enter data into the CK\_Orders database everyday.

Certkiller .com wants you to implement a disaster recovery plan for the CK\_Orders database. You need to ensure that data can be easily recovered. You plan to perform a full backup every Saturday at 2:00 P.M.  
What should you do?

- A. Open the Windows Backup utility on Certkiller -DB01. Configure a Full backup to run weekly on Saturdays at 2:00 P.M.
- B. Run the BACKUP DATABASE Transact-SQL statement on the CK\_Orders database.
- C. Open the Database Backup dialog box for the CK\_Orders database in the SQL Enterprise Manager console. Configure a Full backup to run weekly on Saturdays at 2:00 P.M.
- D. Open the Database Backup dialog box for the CK\_Orders database in SQL Enterprise Manager console. Configure a Differential backup to run weekly on Saturdays at 2:00 P.M.

Answer: C

Explanation: You configure a Full backup of a database in SQL Management Studio. You can accomplish this by right-clicking the appropriate database and selecting Tasks and then Back Up from the context menu.

Incorrect Answers:

- A: The Windows Utility can be used to backup data on a computer. It cannot be used to backup a database.
- B: The BACKUP DATABASE statement can be used to backup a database but it cannot be used to schedule a recurring backup job.
- C: You plan on running a Full backup not a Differential backup.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: backing up databases, overview  
Microsoft SQL Server 2000 Books Online (2004), Index: BACKUP DATABASE

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**QUESTION 62:**

You work as the database administrator at Certkiller .com. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that runs on a Windows Server 2003 computer. Certkiller -DB01 hosts a database

named CK\_Orders. Several data capturers enter data into the CK\_Orders database everyday. The Simple Recovery Model is implemented for the CK\_Orders database. A Full backup of the CK\_Orders database is performed every Saturday at 2:00 P.M.

You are concerned that data loss may occur should Certkiller -DB01 suffer a hard disk failure. You decide to implement additional backups of the CK\_Orders database on a daily basis. You want to minimize the amount of time required for the backups as well as the time required to restore the database.

What should you do?

- A. Perform differential backups of the CK\_Orders database on every week day.
- B. Switch the CK\_Orders database to the Full Recovery Model.
- C. Perform a Full backup of the CK\_Orders database on every week day.
- D. Perform incremental backups of the CK\_Orders database on every week day.

Answer: A

Explanation: To minimize the amount of time required to perform the backups, you need to perform differential backups on the week days. Differential backup ups only backs up the data that has changed since the last Full backup.

Incorrect Answers:

- B: The recovery model will not affect the time required for the backup or the restore.
- C: Restoring data from transaction log backups will not minimize restore times.
- D: SQL Server 2000 does not support incremental backups.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: backing up databases, overview

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### **QUESTION 63:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com recently started using a SQL Server 2000 database named CK\_Products residing on a Windows 2000 Server computer. The server has recently suffered a power failure in the middle of business hours. You bring the server back online and the SQL Server initiates the recovery process and discovers torn pages.

You are required to repair these errors.

What should you do?

- A. SQL Server 2000 should be run in single-user mode
- B. The DBCC CHECKDB statement should be run with the REPAIR\_FAST option
- C. CK\_Products should be attached to a different computer
- D. CK\_Products should be restored from the latest backups

Answer: D

Explanation: In the scenario you should remember to restore the database from the latest backups and apply all transaction log backups that were made after the most recent backup, this action ensures that you achieve the scenario objective.

Incorrect Answers:

A: In the scenario this option can not be used to repair the consistency errors of the database.

B: You should not consider this action as this will not help you achieve the scenario objective.

C: In the scenario you should not use this option because this will not repair the torn pages in the database.

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#### **QUESTION 64:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. Certkiller .com has its headquarters in Chicago and branch office in Miami. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com makes use of a SQL Server 2000 database for storing the business information. SQL Server 2000 has been installed with the default Latin1\_General\_CI\_AS collation. You recently backed up the database and shipped the tape to the branch office in Miami.

When the tape arrives at the Miami branch office it should be restored to another SQL Server 2000 computer which has been installed with the Franch\_CI\_AS collation. The restored databases will be used independently from the other databases. The network users will not run distributed queries involving that database. The tables of the database will not be joined with tables of other databases. The task should be performed using the least amount of administrative effort.

What should you do in Miami?

- A. The master database should be rebuilt by the Miami administrator.
- B. SQL 2000 should be installed on a different computer with the default collation by the Miami administrator.
- C. The local settings in the registry should be changed by the Miami administrator.
- D. The back up should be restored by the Miami administrator and nothing else should be done.

Answer: D

Explanation: In the scenario you should always remember that SQL Server 2000 supports different collations at the levels of instance, table and column so simply restoring the backup and doing nothing is the proper administrative step to take.

Incorrect Answers:

A: This option is not a required action in the scenario it was only a requirement when

using the previous version of SQL, SQL Server 7.0.

B: There is no need for this administrative task in the scenario as SQL Server 2000 supports different collations at the levels of instance, table and column.

C: There is no need to make this change to the registry in the scenario because SQL Server 2000 supports different collations at the levels of instance, table and column.

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**QUESTION 65:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server. The Certkiller .com network contains a single database server named Certkiller -DB01, and a file server named Certkiller -SR22. Certkiller -DB01 runs SQL Server 2000 and hosts a database named CK\_Sales that stores sales data for the company. The CK\_Sales database is configured to use the full recovery model.

You want to implement a backup strategy for the CK\_Sales database that includes log shipping. You successfully install SQL Server 2000 on a new database server named Certkiller -DB02.

What should you do next?

- A. Create a database instance on Certkiller -DB02.
- B. Perform a full backup of the CK\_Sales database on Certkiller -DB01 and restore it to Certkiller -DB02.
- C. Configure Certkiller -DB01 and Certkiller -DB02 as active nodes.
- D. Reproduce the user login from Certkiller -DB01 on Certkiller -DB02.

Answer: B

Explanation: Log shipping requires that the primary database be backed up and restored to the secondary database server. This can be done automatically when you configure the secondary server for log shipping, or it can be done manually.

Incorrect answers:

A: You have already installed SQL Server 2000 on Certkiller -DB02. You must create the initial database instance when you install SQL Server 2000.

C: Failover clustering uses nodes, not log shipping.

D: Database mirroring with failover may require that you reproduce the user login from Certkiller -DB01 on Certkiller -DB02. Log shipping does not have this requirement as it is a passive recovery mechanism that does not support automatic failover.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: log shipping, overview

Microsoft SQL Server 2000 Books Online (2004), Index: log shipping, configuring

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**QUESTION 66:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named

Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com currently makes use of a SQL Server 2000 database named ProInfo to store its business transactions. The Certkiller .com management has decided that the backup strategy consists of full database backups on Sunday evenings and differential backups on Tuesday and Thursday evenings.

The following Thursday morning when you run the DBCC CHECKDB statement you discover that several consistency error exist in a table named Production. You additionally discover that no allocation errors were detected. You are required to ensure that you make the database consistent with little or no data loss by accomplishing this task before the Thursday differential database backup occurs.

What should you do?

- A. The DBCC CHECKCATALOG (Products) statement should be executed.
- B. The DBCC CHECKALLOC (Products, REPAIR\_REBUILD) statement should be executed.
- C. The database should be restored from the latest database backups.
- D. The DBCC CHECKTABLE (Products, REPAIR\_REBUILD) statement should be executed.

Answer: D

Explanation: In the scenario you are required to ensure that you make the database consistent with little or no data loss. This objective is achieved by using this option because the statement will perform the most thorough repairs possible without losing data.

Incorrect Answers:

- A: This option should not be used in the scenario as it is meant for checking for errors in system tables not user tables.
- B: This option should not be used in the scenario as you would only be checking the database for allocation errors and that is not enough.
- C: This option should not be used in the scenario because it does not contain the latest transactions that occurred after the completion of the most recent differential backup on Tuesday.

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### **QUESTION 67:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are responsible for administering a SQL 2000 database for Certkiller .com who sells genuine quality approved lumber products to corporate vendors internationally. The Certkiller .com office is located in a region that suffers frequently from power outages. You are required to provide a solution that avoids database inconsistency problems as a result of the power outages. The solution you



are designing should not adversely affect the database performance.  
What should you do?

- A. A battery-backed disk cache should be used.
- B. DBCC DBREINDEX should be executed.
- C. DBCC DBREPAIR should be executed.
- D. Frequent database backups should be performed.

Answer: A

Explanation: In the scenario you should consider making use of a battery-backed disk cache which is capable of holding data in the write cache for several days. This option best suite the scenario conditions.

Incorrect Answers:

B: You should not consider making use of this statement in the scenario because this statement is superseded by a DROP DATABASE statement used to completely remove the database.

C: This option should not be used in the scenario because you would adversely be affecting the performance of the server.

D: This option should seriously be considered when databases are of concern but will not help database inconsistencies caused by power outages.

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### **QUESTION 68:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com has recently discovered that periodically data has been added to, deleted from and modified in the Products table of the SQL 2000 database. The table has a unique clustered index which enforces the primary key on the ProductID column. Certkiller .com concern is that overtime the performance of queries against the Products table has deteriorated. You decide to run the DBCC SHOWCONTIG statement against the table and receive the output below:

DBCC SHOWCONTIG scanning 'Products' table ...

Table: 'Products' (123456789); index ID: 1, database ID: 8

TABLE level scan performed.

- Pages Scanned.....: 825  
- Extents Scanned.....: 104  
- Extent Switches.....: 822  
- Avg. Pages per Extent.....: 7.9  
- Scan Density [Best Count:Actual Count]...: 12.44% [102:820]  
- Logical Scan Fragmentation.....: 98.67%  
- Extent Scan Fragmentation.....: 1.64%  
- Avg. Bytes Free per Page.....: 2185.8  
- Avg. Page Density (full).....: 77.28%

DBCC execution completed. If DBCC printed error messages, contact your system administrator.

You are required to improve the performance of the queries against the Products table.

What should you do?

- A. The DBCC DBREINDEX (Products) statement should be executed.
- B. The DBCC SHOWCONTIG statement should be executed and specify the REBUILD option.
- C. The clustered index should first be dropped on the Products table and recreate it.
- D. The DBCC SHOWCONTIG statement should be executed and specify the REINDEX option.

Answer: A

Explanation: In the scenario the performance shows the table has become fragmented over time; to achieve the scenario objective the DBCC DBREINDEX statement will rebuild the clustered index without dropping the table's primary key.

Incorrect Answers:

B, D: In the scenario you should not consider using this option since the DBCC SHOWCONTIG statement has no options it is only used to show the extent of data fragmentation in a table or an index.

C: There is no need for you to perform this action in the scenario because you should simply use the DBCC DBREINDEX statement which will ensure that the table's primary key is not dropped.

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#### **QUESTION 69:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

Certkiller .com has recently discovered during routine maintenance that the physical size of the transaction log is increasing. Certkiller .com frequently adds a vast amount of data to the database and the log then expands to accommodate them.

During the course of the day you decide to perform a backup of the transaction log with the default options and the log file appears to have free space. You still notice that the physical size continues to increase as a result of the bulk-load operations.

You are required to reduce the size of the transaction log file.

What should you do?

- A. A BACKUP statement should be executed with the UNLOAD option.
- B. A BACKUP statement should be executed with the NOUNLOAD option.
- C. A DBCC SHRINKFILE statement should be executed.
- D. A DBCC DBREINDEX statement should be executed.

Answer: C

Explanation: In the scenario you should always remember that executing the DBCC SHRINKFILE statement you are able to reduce the physical size of the transaction log as required in the scenario.

Incorrect Answers:

A: This option should not be used in the scenario because this option would automatically rewind and release the tape drive after backup and will not decrease the size of the transaction log.

B: This option should not be used in the scenario because this option would not automatically rewind and release the tape drive after backup and will not decrease the size of the transaction log.

D: This option can not be used to help in the scenario because this DBCC DBREINDEX statement is used to rebuild all indexes in a particular table.

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### QUESTION 70:

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are responsible at Certkiller .com for periodically running scheduled jobs within a database maintenance plan. During your maintenance routine you discover that several allocation and consistency errors are in a table named Inventory in the CK\_Sales database. You are required to repair those errors as quickly as possible. What should you do?

A. You should execute the DBCC CHECKALLOC (Inventory, REPAIR\_FAST) statement.

B. You should execute the DBCC CHECKTABLE (Inventory, REPAIR\_ALLOW\_DATA\_LOSS) statement.

C. You should execute the DBCC CHECKCATALOG (CK\_Sales) statement.

D. You should execute the DBCC CHECKDB (CK\_Sales, REPAIR\_ALLOW\_DATA\_LOSS) statement.

Answer: D

Explanation: In the scenario you should remember that in some situations you are not able to bring the database completely up to data. To correct those errors you are required to execute the proper DBCC statement in the scenario.

Incorrect Answers:

A: This option should not be used in the scenario because this statement only checks for and corrects allocation errors in the scenario.

B: This option should not be considered for usage in the scenario as this statement would only correct consistency errors and not the allocation errors.

C: This option should not be used in the scenario because the statement is used to check

system tables for errors and apply only to system tables this option does not repair any errors.

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**QUESTION 71:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You have recently received instruction to implement SQL Server 2000 on the network. You are required to monitor how well the system is functioning. You have recently come to believe that a certain application is causing deadlocks and thus deteriorating the overall performance of the database. You received additional instruction to choose which of the tools you are required to use to determine the cause of the deadlocks.

What should you do?

- A. You should use the Performance Monitor.
- B. You should use the SQL Server Agent.
- C. The sp\_monitor system stored procedure should be used.
- D. You should use the SQL Profiler.

Answer: D

Explanation: You should remember that SQL server comes shipped with several tools to enable performance monitoring and troubleshooting. You additionally have the ability to choose to monitor only deadlocks that are associated with a specific database by providing a Database ID event to be used as a filter.

Incorrect Answers:

A: You should remember that Performance Monitor cannot determine the processes of objects that are involved in particular deadlock situations.

B: You should not consider using this tool as it is unable to identify the cause of a deadlock it only enables scheduling of recurring activities and notification for problems associated with SQL 2000.

C: This option cannot be used because it only provides general statistical information and cannot obtain information about deadlocks.

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**QUESTION 72:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network has recently implemented SQL 200 Server Enterprise Edition. Certkiller .com stores its business information in several SQL 2000 databases which reside on a Windows 2000 Server computer. Certkiller .com has

users in the marketing and sales departments who execute queries against the databases to retrieve data analysis. Certkiller .com members of the Data Entry department update the customer information and members of the accounting department update financial information.

You are responsible for administering these databases. You are required to create a sample of user activity in the database in order to optimize indexes, queries a stored procedures. The server is very busy and the monitoring should not overload the server.

What should you do?

- A. Activity should be monitored periodically through the Current Activity windows in Enterprise Manager.
- B. SQL Profiler should be run on the SQL Server production computer and relay the trace on a Windows 98 computer located on the network.
- C. SQL Profiler should be run on another computer to capture a trace with typical activity and save the trace data into a table in a database.
- D. SQL Profiler should be run on another computer to capture a trace with typical activity and save the trace data into a file.

Answer: D

Explanation: In the scenario you should remember that SQL Profiler enables you to capture database activity in real time and replay the events to simulate actual database activity.

Incorrect Answers:

- A: This option should not be used in the scenario as you would only be allowed to view information about current processes only.
- B: This option should not be used in the scenario because Windows 98 does not support an installation of SQL Server Enterprise Edition.
- C: This option should not be used in the scenario because this places additional strain and might overload the server.

---

### **QUESTION 73:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You have recently received instruction to start developing an application. When you test your application it appears to be not responding. You later attempt to run the application at different times and notice that it appears the stop responding at approximately the same times.

You have reason to believe that the application is stopping due to locking problems. You are required to determine the source or sources of the locking problems to repair your application.

What should you do?

- A. You should use the KILL command.
- B. You should call the sp\_droplock stored procedure.
- C. You should use the System Monitor.
- D. You should call the sp\_lock stored procedure.

Answer: D

Explanation: In the scenario you should remember that locking is a mechanism that SQL Server 2000 initiates by default to prevent concurrency problems. Executing the sp\_lock stored procedure to view the information about locks is the proper option in the scenario.

Incorrect Answers:

A: This option should not be used in the scenario as it will end the application causing the problems but will not identify where the locks are.

B: This option can not be considered in the scenario for usage as there is no sp\_droplock command in SQL Server 2000 only a sp\_lock command.

C: This option should not be used in the scenario because the System monitor will not be able to identify where the locks are occurring in your application.

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#### **QUESTION 74:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

A Certkiller .com network employee named Rory Allen has recently reported that he receives an error message each time when attempting to run the SQL script below:

```
USE CK_Tracking
DROP TABLE Suppliers
CREATE TABLE Suppliers
(
  SupplierID int IDENTITY,
  CompanyName nvarchar (50),
  Phone nchar (10),
  Address nvarchar (50),
  City nvarchar (50)
)
```

Rory Allen reports that the error message states that his user account does not have the necessary permissions. Rory Allen however states that he is capable of creating several other tables in the CK\_Tracking database before he ran this script.

You are required to enable Rory Allen the capability to perform his task whilst using the least administrative effort. Rory Allen should not be granted excessive permissions in SQL Server.

What should you do?



- A. Rory Allen's user account should be added to the db\_accessadmin fixed database role.
- B. Rory Allen's user account should be granted the DROP TABLE permission.
- C. Rory Allen's user account should be granted the CREATE TABLE permission.
- D. Rory Allen's user account should be added to the db\_dlladmin fixed database role.

Answer: D

Explanation: In the scenario you should remember that by granting Rory Allen the db\_dlladmin fixed database role that you will enable him to issue data definition language (DDL) statements without granting other users the permissions.

Incorrect Answers:

- A: This option should not be used in the scenario as this would enable Rory Allen the capability to delete user accounts in SQL which is not what should happen.
- B: This option should not be used in the scenario because this permission is owned by the creator of the table and cannot be explicitly granted to any user.
- C: This option should not be used in the scenario as it states that Rory Allen was capable of creating several other tables before using the script.

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### **QUESTION 75:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all database servers run SQL Server 2000. The Certkiller .com network contains a database server named Certkiller -DB01 B01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company.

Certkiller .com recently acquired another company named Testlabs.com. Users in TestLabs.com also access the CK\_Sales database on Certkiller -DB01. A Certkiller .com user reports that she often receives an error message when she accesses the CK\_Sales database. You discover that an errant process is causing the error message. You need to terminate the errant process while minimizing the impact on users that are currently connected to the database. You identify the session ID (SPID) of the errant process as SPID 34.

What should you do next?

- A. Run the KILL SPID 34 Transact-SQL statement.
- B. Stop and restart the SQL Server Agent service.
- C. Locate the errant process in task manager and end the process tree.
- D. Run the KILL 34 Transact-SQL statement.

Answer: D

Explanation: The errant process can be terminated by using the KILL statement and specifying the session ID as in KILL 34.

Incorrect answers:

- A: The KILL statement does not use the SPID clause, only the SPID number.
- B: Stopping and restarting the SQL Server Agent service will affect all users that are

connected to the database.

C: You cannot use Task Manager to terminate a SQL Server process. Task Manager terminates all processes associated with an application.

---

**QUESTION 76:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that hosts a database named CK\_Sales. The CK\_Sales database stores sales data for the company. Certkiller .com has several Sales Representatives that use portable client computers when they visit prospective clients. You enable these users to access the CK\_Sales database creating an Internet Information Services (IIS) virtual directory on a Web server named Certkiller -SR04. A new Certkiller .com security policy requires that remote users run only pre-defined queries against the CK\_Sales database. You need to ensure that the Sales Representatives comply with the new security policy. What should you do?

- A. Enable only URL queries on the IIS virtual directory.
- B. Enable only template queries on the IIS virtual directory.
- C. Enable only XPath queries on the IIS virtual directory.
- D. Configure the portable computers to use only the Named Pipes Net-Library.
- E. Configure the portable computers to use only the Shared Memory Net-Library.

Answer: B

Explanation: Template queries allow users to specify a pre-defined query and run it against a database from the URL. The pre-defined queries are contained in XML files.

Incorrect Answers:

- A: URL queries allow users to construct a query and run it against a database from the URL. You should therefore use template queries instead.
- C: XPath queries allow users to run XPath queries against annotated mapping schemas. It does not allow them to query the database.
- D, E: No Net-Libraries are used to access a database through an IIS virtual directory.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: IIS Virtual Directory Management for SQL Server utility

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**QUESTION 77:**

You work as the database administrator at Certkiller .com. The Certkiller .com has its headquarters in Washington and a branch office in Chicago. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run

either Windows 2000 Professional or UNIX. All the UNIX users are located in Chicago. The Certkiller .com network contains a Web server named Certkiller -SR01 and a SQL Server 2000 database server named Certkiller -DB01. Both Certkiller -SR01 and Certkiller -DB01 are located at headquarters. Certkiller -DB01 hosts a database named CK\_Data that stores business information for the company.

You need to provide Certkiller .com users in the Chicago office with access to the CK\_Data database. You create an Internet Information Services (IIS) virtual directory for the CK\_Data database on Certkiller -SR01. You need to configure the IIS virtual directory and ensure that all Certkiller .com users in the Chicago office can access the CK\_Data database across the Internet. You want to accomplish this task using the least amount of administrative effort.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Enable Basic Authentication on the IIS virtual directory.
- B. Enable Windows Integrated Authentication on the IIS virtual directory.
- C. Enable Mixed Mode Authentication on the IIS virtual directory.
- D. Create SQL Server logins for all users.
- E. Create SQL Server logins for all UNIX users.
- F. Create a SQL Server login for all UNIX users.

Answer: A, D

Explanation: To configure database access across the Internet using the least amount of effort, you should select the Use Basic Authentication (Clear Text) to SQL Server account option on the Security tab of the IIS Virtual Directory Management for SQL Server utility. This requires that you create SQL Server logins for all users in the Chicago office.

Incorrect Answers:

B: You cannot use Windows Authentication as UNIX users will not have Windows accounts.

C: SQL Server 2000 supports Mixed Mode Authentication but you need to configure Internet access to the database in the IIS virtual directory. IIS does not support Mixed Mode Authentication.

E, F: The IIS virtual directory allows only one authentication scheme - Basic Authentication to SQL Server login or Windows Integrated Authentication. This means that all users that require database access through the Internet must have the same type of account.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: IIS Virtual Directory Management for SQL Server utility

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## **QUESTION 78:**

You work as the database administrator at Certkiller .com. The Certkiller .com

network contains an Oracle database server named Certkiller -DB01 and a Windows 2000 member server named Certkiller -SR01. Certkiller -DB01 contains a database named CK\_Dir that has a single table named Contacts. The Contacts table is used to store business contacts for the company. The Oracle client software is installed on Certkiller -SR01.

You install SQL Server 2000 on Certkiller -SR01 and create a new database named CK\_Data with a Contacts table. You are required to import the data in the Contacts table in the CK\_Dir database to the Contacts table in the CK\_Data database. Your solution must provide the maximum performance.

What should you do?

- A. Use the bcp utility.
- B. Use the BULK INSERT statement.
- C. Use a SELECT ... INTO statement.
- D. Create a Data Transformation Services (DTS) package.

Answer: D

Explanation:

The Data Transformation Services (DTS) is used to import data from various data sources, including other databases and text files.

Incorrect Answers:

A, B: The bcp utility and the BULK INSERT statement can only be used to import data from a flat file. They cannot be used to import data from another database.

C: The SELECT ... INTO statement can only be used in the current database. It also creates the table into which the data is imported. It cannot be used to import data from another database and cannot be used to import data into an existing table.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: DTS, overview

Microsoft SQL Server 2000 Books Online (2004), Index: SELECT, SELECT (described)

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility, overview

Microsoft SQL Server 2000 Books Online (2004), Index: BULK INSERT, overview

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### **QUESTION 79:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that hosts a database named CK\_Data.

You install a new SQL Server 2000 database server named Certkiller -DB02. You create a new database named CK\_Sales on Certkiller -DB02. You must populate the CK\_Sales database with data from several tables in the CK\_Data database.

You want to use the bcp command line utility to export the data to a text file. You want to accomplish this task as quickly as possible.

What should you do?

- A. Run the bcp command against each table that contains the required data.
- B. Run the bcp command against each column that contains the required data.
- C. Create a view based on the table columns that contain the required data and run the bcp command against resulting view.
- D. Run a query to return the required data and run the bcp command against the query's return set.

Answer: D

Explanation: The bcp command can be run against a table, a view, or a query. Running the bcp utility against the result set of a query will require the least amount of time.

Incorrect Answers:

- A: You can run the bcp command against a table but you would need to run it against each table that contains the required data. You should first create a query that returns the required data and run the bcp command against the result set from the query.
- B: The bcp command can be run against a table, a view, or a query. It cannot be run against a column.
- C: You can run the bcp command against a table view but it would require less time to first create a query that returns the required data and run the bcp command against the result set from the query.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility

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### **QUESTION 80:**

You work as the database administrator at Certkiller .com. The Certkiller .com has its headquarters in Washington and a branch office in Chicago. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that is located in Chicago.

Certkiller -DB01 hosts a database named CK\_Sales that stores sales information for the company.

Certkiller .com opens a new office in Atlanta. The Atlanta office will house Certkiller .com's Sales department. The Atlanta office has an Internet connection but no direct connection exists between Atlanta and the other offices. You need to move the CK\_Sales database to the Atlanta office.

What should you do?

- A. Use the Database Copy Wizard to move the database.
- B. Use the BULK INSERT statement to move the database.
- C. Detach the database and attach it at the Atlanta office.
- D. Create a Data Transformation Services (DTS) package.

Answer: C

Explanation: As there is no connectivity between the source and the destination database servers, you must detach the database and attach it at the destination.

Incorrect Answers:

A: The Database Copy Wizard to move the database from one location to another.

However, the Database Copy Wizard uses a Data Transformation Services (DTS) package to perform the operation and DTS requires connectivity between the two data sources.

B: The BULK INSERT statement can only be used to import data from a flat file. It cannot be used to move a database.

D: The Data Transformation Services (DTS) is used to import data from various data sources, including other databases and text files; however, the DTS requires connectivity between the two data sources.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: detaching database from server, Attaching and Detaching a Database

Microsoft SQL Server 2000 Books Online (2004), Index: DTS, overview

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility, overview

Microsoft SQL Server 2000 Books Online (2004), Index: BULK INSERT, overview

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### **QUESTION 81:**

You work as the database administrator at Certkiller .com. The Certkiller .com has its headquarters in Washington. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Inventory that stores product information for the company. The CK\_Products database is used mainly for querying purposes.

Certkiller .com opens a new office in San Francisco. A 512 Kbps WAN link is established between the San Francisco office and headquarters. A CK\_Products database has been created on a SQL Server 2000 computer named Certkiller -DB02 in the San Francisco office. You need to copy the CK\_Products database to the San Francisco office. You are not required to synchronize the source and destination databases after the data has been copied. You want to copy the database using the least amount of administrative effort.

What should you do?

- A. Run a distributed query against the database in San Francisco.
- B. Use the BULK INSERT statement to copy the database.
- C. Detach the database and attach it at the San Francisco office.
- D. Use the DTS Import/Export Wizard to copy the database.
- E. Use the bcp utility.

Answer: D



Explanation: You can use the DTS Import/Export Wizard to copy data from one database to another by specifying a source and target location.

Incorrect Answers:

A: You could populate the database in the San Francisco office by using distributed queries but this would require that you create and configure linked servers in SQL Server 2000. This would require more administrative effort than using the DTS Import/Export Wizard.

B, E: The BULK INSERT statement and the bcp utility can only be used to import data from a flat file. It cannot be used to copy a database.

C: Detaching and attaching a database effectively moves the database from one location to the other; however, you need to copy the database, not move it.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: detaching database from server, Attaching and Detaching a Database

Microsoft SQL Server 2000 Books Online (2004), Index: DTS, overview

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility, overview

Microsoft SQL Server 2000 Books Online (2004), Index: BULK INSERT, overview

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## **QUESTION 82:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All client computers run Windows 2000 Professional. The Certkiller .com network contains an Oracle 9i database server named Certkiller -DB01 that hosts a database named CK\_Data. The CK\_Data database consists of five comma-delimited files. Certkiller .com wants to migrate the CK\_Data database to SQL Server 2000. You install a new SQL Server 2000 database server named Certkiller -DB02. You want to create a new database named CK\_Data and all the required tables on Certkiller -DB02. You must import the data into the CK\_Data database on Certkiller -DB02. You want to accomplish this task as quickly as possible. What should you do?

- A. Use the bcp command to import the required data.
- B. Use a BULK INSERT statement to import the required data.
- C. Use a SELECT statement with an INTO clause to import the required data.
- D. Use the Data Transformation Services (DTS) to import the required data.

Answer: B

Explanation: The bcp command and the BULK INSERT statement can be used to import data from a text file into a SQL Server 2000 database; however, the BULK INSERT statement provides the best performance.

Incorrect Answers:

A: The bcp command can be used to import data from a text file into a SQL Server 2000 database; however, the BULK INSERT statement provides the best performance.

C: The SELECT statement can be used to retrieve data from a SQL Server 2000 database. It cannot be used to retrieve data from a text file.

D: Data Transformation Services (DTS) can be used to import data from a single text file but BULK INSERT statement provides the best performance when data from multiple text files must be imported.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility, overview

Microsoft SQL Server 2000 Books Online (2004), Index: BULK INSERT, overview

Microsoft SQL Server 2000 Books Online (2004), Index: DTS, overview

Microsoft SQL Server 2000 Books Online (2004), Index: SELECT, SELECT (described)

### QUESTION 83:

You work as the database administrator at hospital named Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Patients that stores patient information for the hospital. The CK\_Patients database contains a table named PatientsInsurance. The definition for the PatientsInsurance table is show in the following exhibit.

Exhibit:

PatientsInsurance				
	Column Name	Data Type	Length	Allow Nulls
PK	PatientID	int	4	
	InsuranceCarriedID	int	1	
	Insurance ID	int	4	
	PolicyTypeID	int	1	
	Expiration	datetime	8	

You need to export data from the PatientsInsurance table to a text file. When you export the data, you must ensure that the data from the Expiration column in the PatientsInsurance table is presented as a character string in the standard USA format MM/dd/yyyy.

What should you do?

- A. Use the GETDATE function.
- B. Create a Data Transformation Services (DTS) package.
- C. Use the @@DATEFIRST session option.
- D. Use the bcp utility with a format file.

Answer: B

Explanation: A Data Transformation Services (DTS) package can be used to transform data by specifying a Transform Data task. This will allow you to change the format of the data in the Expiration column.

Incorrect Answers:

A: The GETDATE function returns the current date and time in the internal SQL Server 2000 format. It does not change the format of datetime data.

C: The @@DATEFIRST session option is used to map days of the week to digits. It does not change the format of datetime data.

D: The bcp command can be used to transfer data to and from a text file. However, the bcp utility uses a format file to change the columns in the destination data source. It does not allow you to change the format of the data itself.

References:

Microsoft SQL Server 2000 Books Online (2004), Index: bcp utility, overview

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#### **QUESTION 84:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts two databases named CK\_Sales and CK\_Products. The CK\_Sales and CK\_Products databases are interrelated.

You need to transform the data in the CK\_Sales and CK\_Products databases. You create a Data Transformation Services (DTS) package with two steps. The first step specifies a Transform Data task for the CK\_Sales database and the second step specifies a Transform Data task for the CK\_Products database. To ensure that the data in the two databases remain consistent, you need to ensure that the DTS package can be rolled back if either of the tasks fails.

What should you do?

- A. Select the Rollback transaction on failure check box for the DTS package.
- B. Select the Commit transaction on successful completion of this step check box for the DTS package.
- C. Select the Commit transaction on successful package completion check box for the DTS package.
- D. Select the Rollback transaction on failure check box for each step in the DTS package.

Answer: C

Explanation: You should select the Commit transaction on successful package completion check box and Fail package on first error check box for the DTS package. This will ensure that data is not committed unless all steps in the DTS package completes successfully.

Incorrect Answers:

A: The Rollback transaction on failure option can only be specified for each step, not for the whole package.

B: The Commit transaction on successful completion of this step option commits data on the successful competition of each step.

D: The Rollback transaction on failure option for each step will only rollback the transaction if an error is encountered in that step. It will not roll back the transaction for the other step.

References:

Microsoft SQL Server 2000 Books Online (2004), Contents: "Data Transformation Services", "Adding Functionality to a DTS", "Incorporating Transactions in a DTS Package", "DTS Transaction Fundamentals".

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### **QUESTION 85:**

You work as a database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains two SQL Server 2000 database servers named Certkiller -DB01 and Certkiller -DB02.

Certkiller -DB01 hosts a database named CK\_Sales that is used for online transaction processing (OLTP). Certkiller -DB02 hosts a database named CK\_Data that is used for online analytical processing (OLAP).

You need to export the data in the CK\_Sales database to the CK\_Data database at the end of every working week. You create a Data Transformation Services (DTS) package and store it on Certkiller -DB01. You want the package to execute automatically every Saturday at 5:00 P.M.

What should you do?

A. Create a new job in SQL Server Enterprise Manager on Certkiller -DB02.

Create a CmdExec job step that runs the dtsrun utility.

Schedule the job to run every Saturday at 5:00 P.M.

B. Create a new job in SQL Server Enterprise Manager on Certkiller -DB02.

Create a Transact-SQL job step to query data from the CK\_Sales database.

Create a second Transact-SQL job step to launch the DTS package.

Schedule the job to run every Saturday at 5:00 P.M.

C. Move the DTS package to Certkiller -DB02.

Create a new job in SQL Server Enterprise Manager on Certkiller -DB02.

Create a CmdExec job step that runs the dtsrun utility.

Schedule the job to run every Saturday at 5:00 P.M.

D. Create a new job in SQL Server Enterprise Manager on Certkiller -DB01.

Create a Transact-SQL job step to launch the DTS package.

Schedule the job to run every Saturday at 5:00 P.M.

Answer: A

Explanation: Transfers can be defined and stored in a DTS package, which can then be run from a command line using the dtsrun utility (DTSRUN.EXE). CmdExec job steps are operating system commands or executable programs ending with .bat, .cmd, .com, or .exe.

In this scenario we create a job consisting of a single cmdexec job step which runs the

DTS package using the dtsrun utility.

Incorrect answers:

B: Only one job, not two, has to be created at the OLTP database server.

C: The DTS export package should be run at the OLTP database server, not at the OLAP database server. The DTS package is exported from the OLTP server to the OLAP server.

D: The job has to be created at the OLTP database server.

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### **QUESTION 86:**

You work as a database administrator at Certkiller .com.

The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com currently uses an ODBC-compliant proprietary Relational Database Management System (RDBMS) to store business information.

You have been instructed to migrate some of the databases in the proprietary RDBMS to SQL Server 2000. You need to ensure that Certkiller .com users can access data in the RDBMS databases during the migration process. You deploy SQL Server client tools on all Certkiller .com client computers. You want to ensure that Certkiller .com users can access data in both database systems by running ad hoc queries against SQL Server.

What should you do?

- A. Create a linked server and a data source name (DSN) for the proprietary RDBMS system.
- B. Create a linked server and use the OLE DB Provider for SQL as a data source.
- C. Create a local partitioned view of the databases on the RDBMS system in SQL Server.
- D. Create stored procedures in SQL Server 2000 to query the RDBMS system.

Answer: A

Explanation: To run distributed queries with a proprietary database system, you must create a linked server definition for the proprietary database system. As the proprietary database system is ODBC-compliant, you can create a data source name (DSN) for the proprietary database system that can be used to identify the proprietary database system.

Incorrect Answers:

B: The OLE DB Provider for SQL data source can be used for SQL Server 6.5 and later databases. It cannot be used for proprietary RDBMS systems.

C: A partitioned view must be derived from the same SQL Server instance. It cannot be created on remote databases.

D: Stored procedures can be run against linked server. However, the Certkiller .com users must be able to use ad hoc queries rather than stored procedures.

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### **QUESTION 87:**

You work as a database administrator at Certkiller .com.

The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com currently uses an ODBC-compliant third-party Relational Database Management System (RDBMS) to store business information.

You implement SQL Server 2000 database server named Certkiller -DB02 on the Certkiller .com network. You need to transfer data from the RDBMS databases to a SQL Server 2000 database on Certkiller -DB02. You create a Data Transformation Services (DTS) package to transfer the data and store the DTS package on Certkiller -DB02. However, when you attempt to execute the DTS package from a client computer named Certkiller -WS228, the package fails. You need to ensure that you can execute the DTS package from Certkiller -WS228. What should you do?

- A. Install the OLE DB provider for the third-party RDBMS database on Certkiller -WS228.
- B. Add your user account to the bulkadmin fixed server role on Certkiller -DB02.
- C. Install the OLE DB provider for the third-party RDBMS database on the RDBMS database server.
- D. Use a SQL Server login to access Certkiller-DB02.

Answer: A

Explanation: The OLE DB Provider is required to communicate with the ODBC-compliant RDBMS database. The OLE DB Provider must be installed on the client computer from which you want to execute the DTS package.

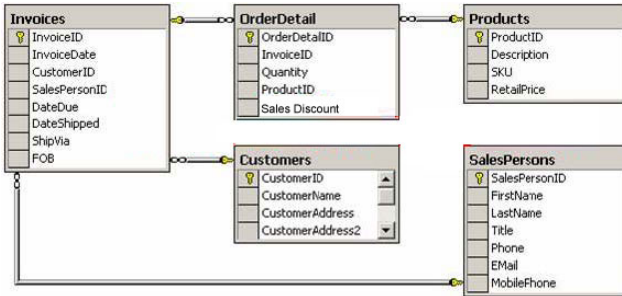
Incorrect Answers:

- B: The bulkadmin role allows you to run BULK INSERT statements. It will not assist in running a DTS package.
- C: The OLE DB Provider must be installed on the client computer from which you want to execute the DTS package.
- D: A SQL Server login is required for users that do not have Windows-based client computers. However, all client computers on the network run Windows 2000 Professional.

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### **QUESTION 88:**

You work as a database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. The tables in the CK Sales database are shown in the database diagram.



A PRIMARY KEY constraint has been defined on the InvoiceID column of the Invoices table. The InvoiceID column was defined as the integer datatype and specified as the IDENTITY (6,6) property. Certkiller .com users are allowed to manually insert invoices with IDs that are not multiples of 6 between the existing invoices. You need to identify the invoices that have been inserted manually. What should you do?

- A. Run the DBCC CHECKIDENT (Invoices, RESEED, 6) statement.
- B. Run the SET IDENTITY\_INSERT Invoices ON (InvoiceID) VALUES (6) statement.
- C. Run the following statement:  
 SELECT \*  
 FROM Invoices  
 WHERE  
 CONVERT (NUMERIC, InvoiceID)/6 <> FLOOR  
 (CONVERT (NUMERIC, InvoiceID)/6)
- D. Run the following statement:  
 SELECT \*  
 FROM Invoices  
 WHERE InvoiceID/6 <> FLOOR (InvoiceID/6)

Answer: C

Explanation: You need to identify integer values that are not multiples of six. This means that you must convert the datatype to numeric so that you can specify multiples of six as whole numbers. You can then use the FLOOR function to return the values that are not multiples of six.

Incorrect Answers:

A: The DBCC CHECKIDENT (Invoices, RESEED, 6) statement will set the ID of the next row inserted in to the table to 6.

B: This is the incorrect usage of the SET IDENTITY\_INSERT statement. The SET IDENTITY\_INSERT statement can either be set to YES or NO. When set to YES, it allows explicit values to be inserted into the identity column of the specified table.

D: This is the incorrect usage of the SET IDENTITY\_INSERT statement. The SET IDENTITY\_INSERT statement can either be set to YES or NO. When set to YES, it allows explicit values to be inserted into the identity column of the specified table.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: FLOOR

Microsoft SQL Server 2000 Books Online (2004), Index: CONVERT



Microsoft SQL Server 2000 Books Online (2004), Index: CONVERT, CAST and CONVERT.

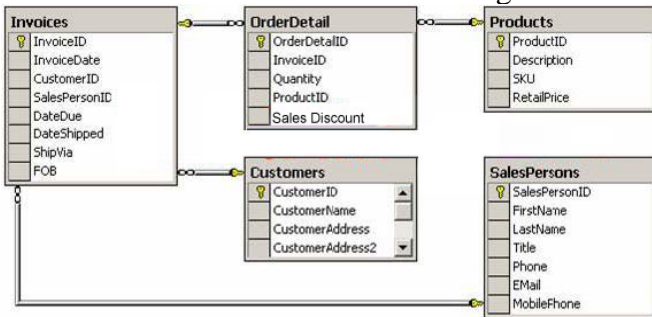
Microsoft SQL Server 2000 Books Online (2004), Index: IDENTITY property

Microsoft SQL Server 2000 Books Online (2004), Index: DBCC CHECKIDENT

Microsoft SQL Server 2000 Books Online (2004), Index: SET IDENTITY\_INSERT

### QUESTION 89:

You work as a database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. The tables in the CK Sales database are shown in the database diagram.



You run daily queries against the CK\_Sales database to produce a Stock Level report. The queries are contained in a stored procedure named Stock\_Levels and are dependant on the OrderDetail and Products tables. The Quantity column in the OrderDetail table is defined as numeric data. You need to convert the Quantity column from numeric data to decimal data in a temporary table. You must ensure that loss of precision or scale does not occur.

What should you do?

- A. Perform an explicit conversion by adding a CAST clause to the SELECT statement in the Stock\_Level stored procedure.
- B. Perform an explicit conversion by adding a CONVERT clause to the SELECT statement in the Stock\_Level stored procedure.
- C. Perform an implicit conversion by running the ALTER TABLE statement with the ALTER COLUMN clause to change the data type.
- D. Add the SET NUMERIC\_ROUNDABORT ON statement to the Stock\_Level stored procedure.

Answer: A

Explanation: An explicit CAST clause will prevent loss of precision or scale when used within the SELECT statement.

Incorrect Answers:

B: The CONVERT clause could cause loss of precision or scale. You should use the

CAST clause. CAST is based on the SQL-92 standard and prevents loss of precision or scale.

C: The ALTER TABLE statement will not prevent loss of precision or scale.

D: The SET NUMERIC\_ROUNDABORT ON statement will set the level of error reporting that is generated when rounding in an expression causes a loss of precision. It does not prevent loss of precision or scale.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: CAST

Microsoft SQL Server 2000 Books Online (2004), Index: CONVERT

Microsoft SQL Server 2000 Books Online (2004), Index: ALTER TABLE.

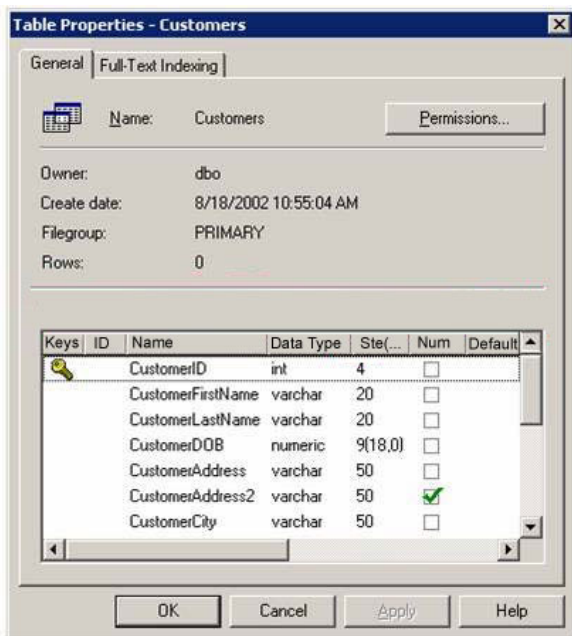
Microsoft SQL Server 2000 Books Online (2004), Index: SET

NUMERIC\_ROUNDABORT.

### QUESTION 90:

You work as a database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. The CK Sales database contains a table named Customers. The properties page of the Customers table is shown in the following exhibit.

Exhibit:



You need to ensure that data entered into the CustomerDOB is in the format mm/dd/yyyy. You want to accomplish this task by performing an implicit conversion.

What Transact-SQL statement should you run?

A. USE CK\_Sales  
GO  
CONVERT (datetime, (Customers.dbo.CustomerDOB))  
GO  
B. USE CK\_Sales  
GO  
CAST (datetime, (Customers.dbo.CustomerDOB))  
GO  
C. USE CK\_Sales  
GO  
ALTER TABLE Customers  
ALTER COLUMN CustomerDOB datetime(mm/dd/yyyy) NOT NULL  
GO  
D. USE CK\_Sales  
GO  
ALTER TABLE Customers  
ALTER COLUMN CustomerDOB datetime NOT NULL  
GO

Answer: D

Explanation: You need to use the ALTER TABLE statement with the ALTER COLUMN to perform an implicit conversion.

Incorrect Answers:

A, B: The CONVERT and CAST statements are used to perform an explicit conversion. They do not perform implicit conversions.

C: The datetime data type does not take a parameter such as (mm/dd/yyyy).

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: CAST

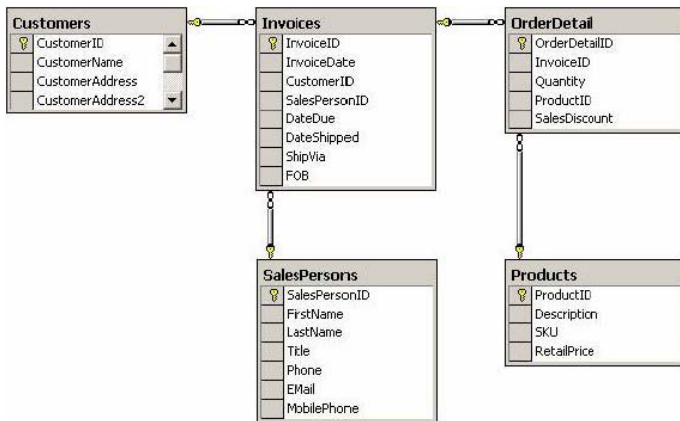
Microsoft SQL Server 2000 Books Online (2004), Index: CONVERT

Microsoft SQL Server 2000 Books Online (2004), Index: ALTER TABLE.

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### **QUESTION 91:**

You work as the database administrator at Certkiller .com. All database servers run Windows 2000 Server and SQL Server 2000. All client computers run Windows 2000 Professional. The Certkiller .com network contains a database server named Certkiller -DB02 that hosts a database named CK\_Sales. The tables in the CK\_Sales database are shown in the following database diagram.



Certkiller .com has several Sales Representatives that use portable client computers. These portable client computers run SQL Server 2000 Desktop Engine (MSDE 2000).

Certkiller .com has developed a new sales tracking application named CK\_sales. The CK\_sales application provides access to the Customers table in the CK\_Sales database. Several Sales Representatives use the sales tracking application as part of Certkiller .com's Customer Relationship Management (CRM) strategy. You need to ensure that the Sales Representatives can interact with the CK\_Sales database while offline. The Sales Representatives must be able to access information about their customers while offline; must be able to add new customers while offline; and must be able to synchronize with Certkiller -DC02 on demand using Web synchronization.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Implement snapshot replication.
- B. Implement merge replication.
- C. Implement transactional replication.
- D. Configure the portable client computers for pull subscriptions.
- E. Configure the portable client computers for push subscriptions.

Answer: B, D

Explanation: To allow offline access to the CK\_Sales database and synchronization on demand using Web synchronization, you need to implement merge replication. To enable the portable client computers to synchronize with Certkiller -DC02 on demand using Web synchronization you must configure them for pull subscriptions. During synchronization changes are propagated to the publisher and to other subscribers.

Incorrect Answers:

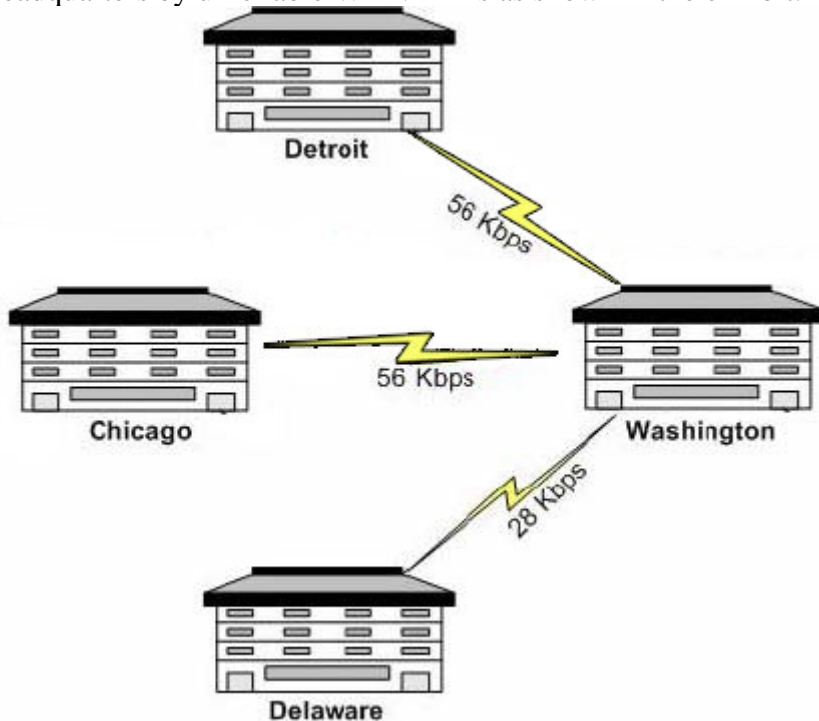
A: You cannot use snapshot replication to replicate transactions from multiple computers to a single database server. Also, with snapshot replication the entire database is sent during synchronization.

C: Transactional replication requires that data be entered at the Publisher. In this scenario, data will be entered at the subscribers.

E: Push replication does not support synchronization on demand from the subscriber. Only the publisher determines when synchronization occurs.

### QUESTION 92:

You work as the database administrator at Certkiller .com. All database servers run Windows 2000 Server and SQL Server 2000. All client computers run Windows 2000 Professional. Certkiller .com has its headquarters in Washington and branch offices in Detroit, Chicago and Delaware. The branch offices are connected to headquarters by unreliable WAN Links as shown in the exhibit.



Certkiller .com has a database named CK\_Sales that stores sales data for the company. The database is hosted on a SQL Server 2000 database server in each office. Each office is responsible for taking orders from the customers in its region but all sales goods are shipped from headquarters. You need to ensure that the Washington office receives all sales transactions at the end of the working day. You must also ensure that conflicts caused by multiple updates are handled and resolved.

What should you do?

- A. Implement snapshot replication with each branch office configured as a publisher and headquarters configured as a subscriber.
- B. Implement merge replication with each branch office configured as a publisher and headquarters configured as a subscriber.
- C. Implement transactional replication with headquarters configured as a publisher and each branch office configured as a subscriber.
- D. Implement snapshot replication with headquarters configured as a publisher and each branch office configured as a subscriber.

Answer: B

Explanation: You should use merge with the branch offices configured as a publishers and headquarters configured as the subscriber because the branch offices must send the data to headquarters.

Incorrect Answers:

A: Snapshot replication does not resolve data conflicts as it does not monitor for updates to the data.

C: Transactional replication is only required if the subscriber must receive the orders as they occur. You need to ensure that the Washington office receives all sales transactions at the end of the working day. Furthermore, you should configure headquarters as the subscriber and the branch offices as publishers because headquarters must receive the updates from the branch offices.

D: Snapshot replication does not resolve data conflicts as it does not monitor for updates to the data. Furthermore, you should configure headquarters as the subscriber and the branch offices as publishers as headquarters must receive the updates from the branch offices.

References:

Microsoft SQL Server 2000 Books Online (2004), Index merge replication, overview

Microsoft SQL Server 2000 Books Online (2004), Index: replication, types

Microsoft SQL Server 2000 Books Online (2004), Index: transactional replication, overview

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### **QUESTION 93:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. Certkiller .com has its headquarters in Washington and branch offices in Detroit and Delaware. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network contains four SQL Server 2000 database servers named Certkiller -DB01, Certkiller -DB02, Certkiller -DB03, and Certkiller -DB04.

Certkiller -DB01 and Certkiller -DB02 are located at headquarters while Certkiller -DB03 is located at the Detroit branch office and Certkiller -DB04 is located at the Delaware branch office. You need to implement a new database named OrdersDB to track sales orders from all three offices. You need to design replication for the OrdersDB database. You decide to implement updateable subscriptions with Certkiller -DB01 as a Publisher, Certkiller -DB02 as a Distributor, and Certkiller -DB03 and Certkiller -DB04 as Subscribers. You need to ensure that use the immediate update mode.

What should you do? (Each correct answer represents part of the solution. Choose TWO.)

A. On Certkiller -DB01, create a Windows account for the Queue Reader Agent.

B. On Certkiller -DB01, install and configure the Microsoft Distributed Transaction

Coordinator (MS DTC).

C. On Certkiller -DB02, install and configure the Microsoft Distributed Transaction Coordinator (MS DTC).

D. On Certkiller -DB03 and Certkiller -DB04, install and configure the Microsoft Distributed Transaction Coordinator (MS DTC).

Answer: B, D

Explanation: To use immediate update mode, you need to install and configure the Microsoft Distributed Transaction Coordinator (MS DTC) on the Publisher and the Subscribers.

Incorrect Answers:

A: The Queue Reader Agent is not required when you use immediate update mode. It is only required when you use queued update mode.

C: The Microsoft Distributed Transaction Coordinator (MS DTC) should be installed and configured on the Publisher and the Subscribers. It is not required on the Distributor.

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### **QUESTION 94:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01 that hosts a database named CK\_Sales. The CK\_Sales database stores sales data for the company. Certkiller .com has several Sales Representatives that use portable client computers when they visit prospective clients. SQL Server 2000 is installed on the portable computers. The Sales Representatives must be able to check stock availability and must be able upload sales data to the CK\_Sales database from customer locations. What should you do?

A. Implement snapshot replication with Certkiller -DB01 configured as a publisher and each portable computer configured as a pull subscriber.

B. Implement merge replication with each portable computer configured as a publisher and Certkiller -DB01 configured as a pull subscriber.

C. Implement merge replication with Certkiller -DB01 configured as a publisher and each portable computer configured as a pull subscriber.

D. Implement snapshot replication with Certkiller -DB01 configured as a publisher and each portable computer configured as a push subscriber.

Answer: C

Explanation: Merge replication with pull subscribers will allow Sales Representatives to check stock availability and to upload sales data to the CK\_Sales database when they are connected to the corporate network from customer locations.



Incorrect Answers:

A: Snapshot replication transmits the entire database as it appears at a specific moment in time and does not monitor for updates to the data. It is best used as a method for replicating data that does not change frequently.

C: You should configure Certkiller -DB01 as the publisher and the portable computers as subscribers because Certkiller -DB01 must receive the updates from the portable computers.

D: Snapshot replication transmits the entire database as it appears at a specific moment in time and does not monitor for updates to the data. It is best used as a method for replicating data that does not change frequently. Furthermore, push subscriptions are implemented by the publisher. This would not be possible as you do not know when the subscribers will be connected to the network.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: merge replication, overview

Microsoft SQL Server 2000 Books Online (2004), Index: replication, types

Microsoft SQL Server 2000 Books Online (2004), Index: transactional replication, overview

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### **QUESTION 95:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. Certkiller .com has its headquarters in Washington and five field offices in the city. All servers on the Certkiller .com network run Windows 2000 Server, all database servers run SQL Server 2000 and all client computers run Windows 2000 Professional. The Certkiller .com network contains a database server named Certkiller -DB01 that is located at headquarters. Certkiller -DB01 hosts a database named CK\_Repairs.

Certkiller .com users in the Purchasing department order parts that technicians use to repair customer's computers at customer sites. The parts are shipped to the field offices. At present Certkiller .com tracks the usage of parts through data entered on the customer's invoice. Each field office has a client computer that runs SQL Server 2000 Standard Edition that is used to capture invoice data.

Certkiller .com wants to implement a new inventory tracking application for the parts. The new application will access a table named \_Parts in the CK\_Repairs database. You need to enable users at headquarters and at the various field offices to update the \_Parts table. You decide to implement merge replication with Certkiller-DB01 as the Publisher and the SQL Server 2000 Standard Edition computers at the field offices as the subscribers.

To minimize the usage of disk space on the Subscribers, you need to ensure that only the Publisher is used to store conflict records.

What should you do?

A. Run the sp\_addmergepublication stored procedure with the @conflict\_retention argument on Certkiller -DB01.

B. Run the sp\_addmergesubscription stored procedure with the @publication argument

on Certkiller -DB01.

C. Run the sp\_addmergepublication stored procedure with the @centralized\_conflicts argument on Certkiller -DB01.

D. Run the sp\_addmergesubscription stored procedure with the @centralized\_conflicts argument on Certkiller -DB01.

Answer: C

Explanation: The centralized\_conflicts = 'true' argument of the sp\_addmergepublication stored procedure specifies that conflict records should be stored only on the Publisher.

Incorrect Answers:

A: The @conflict\_retention argument Specifies the retention period, in days, for which conflicts are retained. It does not define the placement of the conflict records.

B, D: When sp\_addmergesubscription is run on the Publisher, it is used to register a subscriber. The sp\_addmergesubscription stored procedure does not define the placement of the conflict records.

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### **QUESTION 96:**

You work as the database administrator at Certkiller .com. All database servers run Windows 2000 Server and SQL Server 2000. All client computers run Windows 2000 Professional. Certkiller .com has its headquarters in Washington and branch offices in Chicago, Madrid and Tokyo. The branch offices are connected to headquarters by fast and reliable WAN Links.

Certkiller .com has a database named CK\_Sales that stores sales information for the company. The database is hosted on a SQL Server 2000 database server in each office. Each branch office sells cultural specific products in its region and requires inventory information from headquarters. All products are shipped from headquarters. You are implementing a replication strategy for Certkiller .com with headquarters as the publisher and the branch offices are subscribers. You need to minimize the amount of data that is sent over the WAN links.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

A. Partition data horizontally.

B. Partition data vertically.

C. Use a single publication for all subscribers.

D. Use a separate publication for each subscriber.

Answer: A, C

Explanation: SQL Server 2000 supports transformable partitions by partitioning data that is specific to a subscriber. This reduces the administrative overhead required to maintain multiple publications and allows you to minimize the amount of data that must be transmitted to each subscriber. Horizontal partitioning allows

you to select rows that are specific to a subscriber. This allows you to select products that are specific to a subscriber.

Incorrect Answers:

B: Vertical partitioning allows you to select columns that are specific to a subscriber. However, inventory information specific to a branch office will be located in rows rather than columns.

D: SQL Server 2000 supports transformable partitions by partitioning data that is specific to a subscriber. This reduces the administrative overhead required to maintain multiple publications and allows you to minimize the amount of data that must be transmitted to each subscriber.

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### **QUESTION 97:**

You work as the database administrator at Certkiller .com. All database servers run Windows 2000 Server and SQL Server 2000. All client computers run Windows 2000 Professional. Certkiller .com has its headquarters in Chicago and branch offices in New Orleans and San Francisco. The branch offices are connected to headquarters by VPN connections.

Certkiller .com has a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Data that stores business information for the company. Certkiller -DB01 is located at headquarters. You need to transmit large amounts of data from the CK\_Data database to SQL Server 2000 database servers at the branch offices at the end of each month. You want to accomplish this using snapshot replication. You Certkiller -DB01 as the Publisher/Distributor and the branch offices are the Subscribers. You need minimize the processing load on Certkiller -DB01.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Set the min server memory option to 12 MB.
- B. Set the @SkipError option to 1.
- C. Create a separate snapshot folder for each subscriber.
- D. Create a single snapshot folder on a network share.

Answer: D

Explanation: You can reduce the load on Certkiller -DB01 by moving the snapshot folder to a network share.

Incorrect Answers:

A: The min server memory option for a Publisher/Distributor should be set to at least 16 MB.

B: The @SkipError option is used with the sp\_addscriptexec stored procedure to specify a script to run for all subscribers to a snapshot, transactional or merge publication. The @SkipError option specifies whether the Distribution Agent should stop if an error is encountered or log the error and continue. However; there is not mention of using scripts in this scenario.

C: The same snapshot must be sent to each subscriber; therefore you do not need separate snapshot folders. This will not reduce the load on Certkiller -DB01.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: snapshot replication, performance

Microsoft SQL Server 2000 Books Online (2004), Index: performance-SQL Server, replication

Microsoft SQL Server 2000 Books Online (2004), Index: min server memory option

Microsoft SQL Server 2000 Books Online (2004), Index: snapshot replication, synchronization

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### **QUESTION 98:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

The Domain User accounts of the Certkiller .com staff that need access to CK\_Sales have been granted login rights in SQL Server. The Certkiller .com Sales department members often have to travel and have all been issued with laptop computers on which Internet Explorer 5.5 have been installed. They requested that they be allowed to enter orders into CK\_Sales. To this end you need to provide them with access to CK\_Sales over the Internet.

Following are the restraints and requirements that you need to keep in mind when provide access to CK\_Sales:

1. Internet Information Services (IIS) will be used to provide Internet Access to CK\_Sales.
2. Only the employees with Windows user accounts will be allowed access.
3. Traveling Sales Department members will connect to their local Internet Service Providers (ISPs) to gain Internet access.
4. There will be no virtual Private Network (VPN).
5. Direct dial connections from users to the corporate LAN will not be configured.
6. Password security must be maintained.
7. Different users should have different levels of permissions in CK\_Sales.

You thus need to decide on a strategy to provide access to CK\_Sales to those employees who require access using the least amount of administrative effort.

What should you do?

A. Login rights to the default, built-in Internet guest account in SQL Server must be granted.

Then configure a virtual directory in IIS to use Anonymous Access.

B. Virtual Directory in IIS should be configured to use Windows Integrated Authentication.

C. Login right in SQL Server should be granted to the Domain Users group.

Virtual Directory in IIS should be configured to use Windows Integrated Authentication.

D. A SQL Server login with the same account name and password as the user's Windows account name and password must be created for each user.

Virtual Directory in IIS should be configured to use Basic Authentication.

Answer: B

Explanation: XML functionality is supported by SQL Server 2000. You need to configure access to CK\_Sales over the Internet, thus you should configure a corresponding virtual directory using the IIS Virtual Directory Management for SQL Server tool. On the Security Tab in the Properties Sheet you need to enable Integrated Authentication. This will ensure that users who have been assigned valid Windows 2000 user accounts will log on locally to their laptops and connect to the Internet. Then they will type the URL associated with the virtual directory in a Web Browser. Then they will be prompted to provide their user names and passwords from a Enter Network Password dialog box. Each of these users must be granted the right to log on to SQL Server to be able to gain access to CK\_Sales. The activities they will be carrying out on CK\_Sales will depend on their level of permissions.

Incorrect answers:

A: Granting Anonymous Access would be allowing access to all users even those who do not have Windows User accounts.

C: Granting login rights to the Domain Users group does not provide different levels of database access to individual users. Thus this option will not comply with the fact that different users should have different levels of permissions in CK\_Sales.

D: If you make use of Basic Authentication (This means Clear Text), then you would be required to create duplicate SQL Server logging for all users. This will amount to more administrative effort than is necessary.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: XML and Internet Support," "XML and Internet Support Overview."

Microsoft SQL Server 2000 Books Online (2004), Contents: XML and Internet Support," "IIS Virtual Directory Management for SQL server," "Using IIS Virtual Directory Management for SQL Server Utility."

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "IIS Virtual Directory Management Utility", "Virtual Directory Properties Dialog Box (Security Tab)."

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### **QUESTION 99:**

You work as the database administrator at Certkiller .com. The Certkiller .com network are spread over two offices: one in Chicago and the other in Los Angeles. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 is located in the Chicago office where you are stationed. You need to provide access to a database names CK\_Customers which is located on Certkiller -DB01, to the Los Angeles users.

Following are the restraints and requirements that you need to keep in mind when provide access to CK\_Customers:

1. Internet Information Services (IIS) will be used by the Los Angeles users to access CK\_Customers.
2. Most Los Angeles users who require access to CK\_Customers have been assigned Windows Accounts that has been granted login rights in SQL Server.
3. The Los Angeles users use Windows 2000 Professional workstations that have been configured with Internet Explorer 5.5.
4. There are some users whose workstations run UNIX.  
These UNIX users also require access to CK\_Customers.  
UNIX workstations might be running other Web browsers.  
UNIX users do not have Windows user accounts.

You thus need to decide on a strategy to provide access to CK\_Sales to the Los Angeles employees who require access using the least amount of administrative effort.

What should you do?

- A. Create SQL Server logins for the UNIX users by configuring a virtual directory in IIS for Windows Integrated Authentication.
- B. Create SQL Server logins for the UNIX users by configuring a virtual directory in IIS for both Basic and Windows Integrated Authentication.
- C. Create SQL Server logins for all users by configuring a virtual directory in IIS for Basic Authentication.
- D. Create Windows accounts for the UNIX users and then grant SQL Server logins to those accounts by configuring a virtual directory in IIS for Windows Integrated Authentication.

Answer: C

Explanation: XML functionality is supported by SQL Server 2000. You need to configure access to CK\_Customers over the Internet, thus you should configure a corresponding virtual directory using the IIS Virtual Directory Management for SQL Server tool. On the Security Tab in the Properties Sheet you need to enable Basic Authentication (Clear Text) to SQL Server account option to enable the UNIX users to access CK\_Customers over the Internet. Basic authentication verifies the SQL Server login and password that is presented when a user attempts to log in to SQL server. And SQL Server logins and password do not rely on the operating system of the client computer. Thus option will present the least administrative effort to accomplish the goal at hand.

Incorrect answers:

- A: If you enable Windows Integrated Authentication, then you will only be granting access to the users who has Windows accounts then the UNIX users will not have access.
- B: You can only configure one authentication mode when using IIS Virtual Directory Management for SQL Server tool.
- D: It is mentioned in the question that the UNIX client computers may be running non-Internet Explorer browsers. Also UNIX does not support Windows Authentication.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: XML and Internet Support," "XML and Internet Support Overview."

Microsoft SQL Server 2000 Books Online (2004), Contents: XML and Internet Support," "IIS Virtual Directory Management for SQL server," "Using IIS Virtual Directory Management for SQL Server Utility."

Microsoft SQL Server 2000 Books Online (2004), Contents: Using the SQL Server Tools, "User Interface Reference," "IIS Virtual Directory Management Utility", "Virtual Directory Properties Dialog Box (Security Tab)."

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**QUESTION 100:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

You are currently developing a client application. This application must:

1. Enable certain users to access CK\_Sales.
2. When these users run the application, they must be able to perform certain tasks within CK\_Sales.
3. No one must be allowed to access CK\_Sales by any other method.

The application is coded to connect to SQL Server by using the name SalesReport.

You now need to enable the application to access the database.

What should you do?

A. The application must be coded to use Windows Authentication.

Create a Windows 2000 group and add the users to that group.

Grant the group the appropriate permissions in CK\_Sales.

B. A SQL Server login named SalesReport must be created.

Then create an application role and grant that role the appropriate permissions in CK\_Sales.

Then add the appropriate users to that role and make the application use that role.

C. A SQL Server login named SalesReport must be created.

Then create an application role and grant that role the appropriate permissions in CK\_Sales.

Make the application use that role.

D. A Windows user account named SalesReport must be created and granted login.

Then create an application role and grant that role the appropriate permissions.

Make the application use that role.

Answer: C

Explanation: An application must first connect to SQL Server. This means that the application must be configured to use a login. It is mentioned in the question that the



application is coded to connect to CK\_Sales using the name SalesReport. Since there is no domain name or backslash character in this name, SQL Server will authenticate SalesReport as a SQL Server login. Thus you should create a SQL Server login named SalesReport.

You should also ensure that users do not use any other means to access CK\_Sales. This means that you should code the application to use an application role.

An application role is created in a database and it can be assigned permissions to manipulate objects in that database.

You also need to make the application use the application role by coding the application to call the sp\_setapprole stored procedure in the CK\_Sales context to and provide a password that activates the application role.

Any permissions that a user may have courtesy of his/her user account or group memberships will be replaced by the permissions that have been assigned to the application role.

Incorrect answers:

A: You should not use a Windows 2000 group and add those users to the group because the question pertinently states that no unauthorized users must be allowed to access CK\_Sales using the application.

B: An application role cannot contain users

D: Client applications always run under the security context of a current user, and not under the security context of a specific Windows user account without the user who owns that account being logged on.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Security levels," Authentication Modes."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "Security Rules."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Advanced Security Topics," Establishing Application Security and Application Roles."."

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### **QUESTION 101:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

You are planning to implement SQL Server 2000 in Certkiller .com. There are three departments that will require separate tables to store their information. These departments are Finance, Human Resources and Sales respectively.

1. The Finance department users belong to a Windows 2000 group named Fin.
2. The Human Resources department users belong to a Windows 2000 group named HR.

3. The Sales department users belong to a Windows 2000 group named Sales.

Each of these departments' information must be protected. Users in the respective department will require full access to the data in their corresponding department;

they should not have access to the other departments' data.

You need to ensure that your solution requires the minimum system resources and administrative overhead.

What should you do?

- A. An instance of SQL Server must be installed on a separate computer for each department. And a separate database must be created for each department.
- B. A separate instance of SQL Server must be installed for each department on the same computer. And a separate database must be created for each department.
- C. A single instance of SQL Server must be installed for all departments. And a separate database must be created for each department.
- D. A single instance of SQL Server must be installed for all departments. And a single database must be created for all departments.

Answer: C

Explanation: SQL server is capable of supporting 16 instances on a single computer. But multiple instances drains the system resources. With a single instance of SQL Server, you are allowed to perform routine database maintenance on a single computer. Separate databases within the single instance will reduce administrative overhead that is related to security. Instead of monitoring which table or column in the same database must be restricted to the members of a particular department, you are able to assign permissions to departmental members for their respective tables or columns only. Thus you should install a single instance of SQL Server and then create a database for each department respectively.

Incorrect answers:

A: Installing an instance of SQL Server on a separate computer for each department will result in more administrative overhead than is necessary.

B: SQL server is capable of supporting 16 instances on a single computer. But multiple instances drains the system resources. Thus creating separate instances of SQL Server on the same computer for each department is possible but not feasible under the circumstances.

D: In a single database for all departments you will be compelled to monitor who is assigned rights to which columns or tables resulting in more than the required administrative overhead.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Installing SQL Server, "Working with Named and Multiple Instances of SQL Server."

Microsoft SQL Server 2000 Books Online (2004), Contents: Creating and Maintaining Databases, "Databases", "Database Design Considerations," Database Performance."

Microsoft SQL Server 2000 Books Online (2004), Contents: Creating and Maintaining Databases, "Databases", "Database Design Considerations," Maintenance."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "Adding a Windows User or Group."

**QUESTION 102:**

You work as the database administrator at Certkiller .com. Certkiller .com has five departments named Accounting, Sales, Marketing, Research and Manufacturing. The Certkiller .com user accounts of each department are located in a domain group named after the department. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run on Windows Server 2000. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

You have been instructed to create a separate database on Certkiller -DB01 for each department. Each Certkiller .com department will use their database to store department-related data. Users in each department must be able to read and update data in the database belonging to their department. No users must be able to access the database belonging to another department.

You need to configure access to the databases to meet these requirements using the least amount of administrative effort.

What should you do?

- A. Create a Windows Authentication login for each domain group and configure the logins as database users for the appropriate database. Add each database user to the db\_datareader and db\_datawriter database roles.
- B. Create a Windows Authentication login for each domain user and configure the logins as database users for the appropriate database. Add each database user to the db\_datareader and db\_datawriter database roles.
- C. Create a Windows Authentication login for each domain group and configure the logins as database users for the appropriate database. Add each database user to the db\_ddladmins database role.
- D. Create a Windows Authentication login for each domain user and configure the logins as database users for the appropriate database. Add each database user to the db\_ddladmins database role.

Answer: A

Explanation: The users of each department belong to a group named after the department. You can use these groups to configure access to the databases. Each database user should be added to the db\_datareader and db\_datawriter database roles for their respective databases. This will prevent users in one department from accessing another department's database.

Incorrect answers:

B: You could create a Windows Authentication login for each domain user, configure the logins as database users for the appropriate database, and add each database user to the db\_datareader and db\_datawriter database roles but it would require less administrative effort to create a Windows Authentication login for each domain group.

C: You can use the domain groups to configure access to the databases but you should not add each database user to the db\_ddladmins database role as this violates the

principle of least privilege.

D: You could create a Windows Authentication login for each domain user but it would require less administrative effort to create a Windows Authentication login for each domain group. Furthermore, you should not add each database user to the db\_ddladmins database role as this violates the principle of least privilege.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Security levels," Authentication Modes."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "Security Rules."

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### **QUESTION 103:**

You work as the database administrator at Certkiller .com. Certkiller .com has five departments named Accounting, Sales, Marketing, Research and Manufacturing. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run on Windows Server 2000 and all client computers run Windows XP Professional. Certkiller .com has a Certification Authority (CA) that has issued digital certificates to each client computer and each server on the Certkiller .com network.

The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Accounts that stores data for the Accounting department. Users in the Accounting department use an in-house client application to connect to the CK\_Accounts database.

Rory Allen is the manager of the Accounting department. Rory Allen is concerned about the security of the data transmitted between Certkiller -DB01 and the in-house client application. You are required to address this matter by implementing a security solution that will require authentication and encryption. What should you do?

- A. Implement a self-signed digital certificate on Certkiller-DB01, set the ForceEncryption option on Certkiller -DB01 to Yes and restart SQL Server service.
- B. Implement a self-signed digital certificate on Certkiller-DB01, set the ForceEncryption option on Certkiller -DB01 to Yes and restart Certkiller -DB01.
- C. Implement a self-signed digital certificate on Certkiller-DB01, set the ForceEncryption option on Certkiller -DB01 to No and restart the SQL Server service.
- D. Configure the Database Engine to use a digital certificate, set the ForceEncryption option on Certkiller -DB01 to No and restart Certkiller -DB01.
- E. Configure the Database Engine to use a digital certificate, set the ForceEncryption option on Certkiller -DB01 to Yes and restart Certkiller -DB01.

Answer: E

Explanation: To configure SQL Server 2005 to encrypt data, you must configure the Database Engine to use a digital certificate in the SQL Server Configuration

Manager, set the ForceEncryption option to Yes and restart the server.

Incorrect answers:

A: Certkiller .com has a Certification Authority (CA). You should use the CA to provide digital certificates for the Database Engine as the CA may reject the self-signed certificate. Also, once you make configuration changes to the SQL Server 2005 server, you must restart the server for the configuration changes to take effect. Restarting the SQL Server service will not ensure that the configuration changes will take effect.

B: Certkiller .com has a Certification Authority (CA). You should use the CA to provide digital certificates for the Database Engine as the CA may reject the self-signed certificate.

C: Certkiller .com has a Certification Authority (CA). You should use the CA to provide digital certificates for the Database Engine as the CA may reject the self-signed certificate. Also, if you want to ensure that data is encrypted you must set the ForceEncryption option to Yes. If the ForceEncryption option is set to No, then data encryption will only be used if the client requests it. Furthermore, once you make configuration changes to the SQL Server 2005 server, you must restart the server for the configuration changes to take effect. Restarting the SQL Server service will not ensure that the configuration changes will take effect.

D: If you want to ensure that data is encrypted you must set the ForceEncryption option to Yes. If the ForceEncryption option is set to No, then data encryption will only be used if the client requests it.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Security levels," Authentication Modes."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "Security Rules."

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### **QUESTION 104:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run on Windows Server 2000 while half the client computers run Windows 2000 Professional and the rest run UNIX. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 contains a database named CK\_Customers. All Certkiller .com users will require access to the CK\_Customers database from the corporate network. You need to configure access to the CK\_Customers database to meet these requirements using the least amount of administrative effort. What should you do?

A. Configure the CK\_Customers to support Mixed Mode Authentication. Create a SQL login for the Domain Users group. Create SQL logins with passwords for each UNIX user.

B. Configure the CK\_Customers to support Windows Authentication. Create a SQL login for each domain user.

C. Configure the CK\_Customers to support Mixed Mode Authentication. Create a SQL

login for each domain user.

D. Configure the CK\_Customers to support Windows Authentication. Create a SQL login for the Domain Users group.

Answer: A

Explanation: You need to use Mixed Mode Authentication to allow access to the database for the UNIX users. Each UNIX user will require a SQL login with a password. The Windows XP Professional users can be granted access collectively by granting the Domain Users group access to the database.

Incorrect answers:

B, D: You cannot use Windows Authentication as this will not allow the UNIX users to access the database.

C: You can create a SQL login for each user but it would require less administrative effort to create a SQL Login for the Domain Users group and separate SQL Logins for the UNIX users.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Security levels," Authentication Modes."

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### **QUESTION 105:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_DB.

Certkiller .com often employs several casual workers to ease the workload on the permanent staff. These casual workers are assigned valid Windows 2000 domain user accounts. You need to prevent these casual employees from connecting to an instance of SQL Server 2000.

What should you do?

A. A Windows 2000 group named Casual must be created.

All Casual workers must be added to this group.

The db\_denydatareader and db\_denydatawriter fixed database roles must then be added to this group.

B. A Windows 2000 group named Casual must be created.

All casual workers must be added to this group.

The Casual group must be denied login in SQL Server.

C. A user-defined database role named Casual must be created.

All casual workers must be added to this role.

This role must be denied access to CK\_DB.

D. All casual workers must be assigned to the public database role.

The public database role must be denied access to CK\_DB.



Answer: B

Explanation: Only Windows user accounts can be denied login in SQL Server. This means that it is possible to ensure that all casual workers are incapable of connecting to SQL Server by placing them in a Windows 2000 group and deny login for this group in SQL Server.

Incorrect answers:

A: The db\_denydatareader and db\_denydatawriter fixed database roles must be specified within the context of a database. Thus the permissions associated with database roles are not applied until the user successfully connects to an instance of SQL Server. This means that the user has to be able to make a connection. This is in direct violation of what is stated in the question.

C: User-defined database roles must be specified within the context of a database. This means that Casual workers must first be allowed to connect to SQL Server before these roles will apply its permissions or deny its permissions. This is not what is required as the questions states that causal workers should not be allowed to connect to an instance of SQL Server at all.

D: You cannot add users to the public database role; all users are automatically members of public.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security Accounts," "Denying Login Access to Windows Accounts."

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### **QUESTION 106:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts two databases named CK\_DB01 and CK\_DB02 respectively.

CK\_DB01 is used by the Sales department and CK\_DB02 is used by the Finance department. A Certkiller .com worker named Rory Allen has access to both CK\_DB01 and CK\_DB02. Rory Allen has been transferred to the Research and Development department with the result that he no longer required access to CK\_DB01. You need to ensure that he cannot access CK\_DB01 for security reasons. To this end you check Rory Allen's Windows user account and found that it has not been added to any groups. And furthermore you also find that the Domain Users group has not been granted login in SQL server. You thus need to execute the appropriate statement to ensure that Rory Allen cannot access CK\_DB01. It is up to you to decide which statement to execute. What should you do?

A. USE CK\_DB01



EXEC sp\_denylogin 'RoryAllen'  
B. USE CK\_DB01  
EXEC sp\_dbremove 'RoryAllen'  
C. USE CK\_DB01  
EXEC sp\_revokelogin 'RoryAllen'  
D. USE CK\_DB01  
EXEC sp\_revokedbaccess 'RoryAllen'

Answer: D

Explanation: When one calls the sp\_revokedbaccess stored procedure in the context of CK\_DB01, then one effectively remove the specified database user account and any permissions that are associated with that user account from the CK\_DB01 database. You could also call the sp\_dropuser stored procedure (not mentioned as an option), but this stored procedure exists primarily for backward compatibility.

Incorrect answers:

A: sp\_denylogin stored procedure will prevent Rory Allen from connecting to SQL Server by using his Windows 2000 or Windows NT user account. If Rory Allen connects to SQL Server using Windows authentication, then he would not be able to connect to CK\_DB02 for which he still required access. Also when calling the sp\_denylogin stored procedure you should ensure that the appropriate domain name and backslash precede the user account.

B: The sp\_dbremove stored procedure will remove a database and all files associated with that database. Besides this would be the wrong context in which to call this stored procedure.

C: sp\_revokelogin stored procedure will prevent Rory Allen from connecting to SQL Server by using his Windows 2000 or Windows NT user account. If Rory Allen connects to SQL Server using Windows authentication, then he would not be able to connect to CK\_DB02 for which he still required access. Also when calling the sp\_revokelogin stored procedure you should ensure that the appropriate domain name and backslash precede the user account.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security Accounts," "Removing Logins and Users."

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### **QUESTION 107:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts two databases named CK\_DB01 and CK\_DB02 respectively. CK\_DB01 is used by the Sales department and CK\_DB02 is used by the Finance department. A Certkiller .com worker named Rory Allen has access to both CK\_DB01 and CK\_DB02. Rory Allen has been transferred to the Research and

Development department with the result that he no longer required access to CK\_DB01. You need to ensure that he cannot access CK\_DB01 for security reasons. To this end you check Rory Allen's Windows user account and found that it has not been added to any groups. And furthermore you also find that the Domain Users group has not been granted login in SQL server. You thus need to execute the appropriate statement to ensure that Rory Allen cannot access CK\_DB01. It is up to you to decide which statement to execute.  
What should you do? (Each correct answer presents a complete solution. Choose TWO.)

- A. USE CK\_DB01  
EXEC sp\_dbremove 'RoryAllen'
- B. USE CK\_DB01  
EXEC sp\_revokelogin 'RoryAllen'
- C. USE CK\_DB01  
EXEC sp\_revokedbaccess 'RoryAllen'
- D. Use Enterprise Manager to deny Rory Allen access to CK\_DB01

Answer: C, D

Explanation: When one calls the sp\_revokedbaccess stored procedure in the context of CK\_DB01, then one effectively remove the specified database user account and any permissions that are associated with that user account from the CK\_DB01 database. You could also call the sp\_dropuser stored procedure (not mentioned as an option), but this stored procedure exists primarily for backward compatibility.  
The Enterprise Manager can be used to prevent Rory Allen from accessing CK\_DB01 without denying him access to CK\_DB02.

Incorrect answers:

A: The sp\_dbremove stored procedure will remove a database and all files associated with that database. Besides this would be the wrong context in which to call this stored procedure.

B: sp\_revokelogin stored procedure will prevent Rory Allen from connecting to SQL Server by using his Windows 2000 or Windows NT user account. If Rory Allen connects to SQL Server using Windows authentication, then he would not be able to connect to CK\_DB02 for which he still required access. Also when calling the sp\_revokelogin stored procedure you should ensure that the appropriate domain name and backslash precede the user account.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security Accounts," "Removing Logins and Users."

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### **QUESTION 108:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. The Certkiller .com network contains a SQL Server 2000 database server named

Certkiller -DB01. Certkiller .com stores its business information in several instances, including named instances of SQL Server 2000 on Certkiller -DB01. The majority of the Certkiller .com client computers run Windows-based operating systems like Microsoft Windows 2000, Microsoft Windows NT, Microsoft Windows ME and Microsoft Windows 9x. There are however, also several users with client computers that run UNIX-based computers. These users make use of custom client applications that use TCP/IP. All these users require access to Certkiller -DB01. You received instruction to integrate the UNIX network clients seamlessly into the Windows-based environment. Each UNIX user will require different permissions in the database. In your solution you want to minimize the number of SQL Server components or features that must be implemented to support the UNIX-based network clients. What should you do?

- A. Grant login to each UNIX user's Windows user account and enable TCP/IP Sockets server Net-Library.
- B. Create a standard SQL Server login for each UNIX user and enable Banyan VINES server Net-Library.
- C. Create a standard SQL Server login for each UNIX user and enable TCP/IP Sockets server Net-Library.
- D. Grant login to each UNIX user's Windows user account and enable Multiprotocol server Net-Library.
- E. Create a standard SQL Server login for each UNIX user and enable Shared Memory server Net-Library.

Answer: C

Explanation: UNIX does not support Windows Authentication, this means you should configure SQL Server to support mixed mode authentication. Also because every UNIX user is to be assigned appropriate permissions within the database, they will all require a separate login.

By default Named Pipes and TCP/IP Sockets server Net-Library are enabled. Of the available options only TCP/IP Sockets server Net-Library is already enabled on the server computers.

Incorrect answers:

- A: This option is only partly correct insofar as that the TCP/IP Sockets server Net-Libraries must be enabled. However, UNIX does not support Windows Authentication.
- B: It is not necessary to enable Banyan VINES server Net-Library because none of the network clients are using Banyan VINES client software.
- D: Even though Multiprotocol Net-Libraries support TCP/IP, if you enable Multiprotocol server Net-Library, then you would fail to meet the stated requirement of minimizing the amount of SQL server features that are necessary to support UNIX clients. Also UNIX does not support Windows Authentication.
- E: You do not need to install Shared Memory server Net-Library as it is not mentioned anywhere in the question that users will be working locally on SQL Server computers.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Security levels," "Authentication Modes."

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Relational Database Components", "Communication Components," Client and Server Net-Libraries."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing servers", "Configuring Network connections", "Net-Libraries and Network Protocols."

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**QUESTION 109:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

Since you have just been appointed to the job, you need to familiarize yourself with the database environment that you will be working in. You then notice that several Certkiller .com users have valid SQL Server logins that are not mapped to user accounts. These users are thus able to access the Finance database where sensitive information is stored. This information is not for all to view. You thus need to ensure that these users cannot access the Finance database. You thus need to decide which statement would be appropriate to execute.

What should you do?

- A. sp\_revokelogin guest
- B. sp\_droplogin guest
- C. USE [finance]  
EXEC sp\_revokedbaccess guest
- D. USE master  
EXEC sp\_revokedbaccess guest

Answer: C

Explanation: The guest database user account is the only way a user with a valid login can access a specific database without being explicitly assigned a database user account or without being a member of a group. This is the 'unmapped' account. In this case the guest account has been created in the Finance database. You thus need to execute the sp\_revokedbaccess stored procedure in the context of the appropriate database and specifying the guest account.

Incorrect answers:

A: The sp\_revokelogin guest stored procedure must be called specifying a Windows user account, and the guest account is a database user account. This is indicated by the lack of domain name or backslash.

B: The sp\_droplogin guest stored procedure executed with the guest parameter will drop

a standard SQL Server login names guest if such a login exists. This is not related to the database user account named guest.

D: The guest account cannot be dropped from the master database.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "Security Rules."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Adding a Windows User or Group."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts", "guest User."

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### QUESTION 110:

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

A Certkiller .com user named Rory Allen is a member of the Sales department. Rory Allen wants to create a database. To this end he issued the following statement from Query Analyzer:

CREATE DATABASE Customers
ON PRIMARY (NAME = Data1, FILENAME = 'D:\Customers1.mdf,
SIZE = 1000, MAXSIZE = 3000, FILEGROWTH = 500),
FILEGROUP Customers_FG2(NAME = DATA2, FILENAME = 'E:\Customers2.ndf,
SIZE = 1000, MAXSIZE = 3000, FILEGROWTH = 500)
LOG ON (NAME = Log, FILENAME = 'F:\Customerlog.ldf,
SIZE = 500, MAXSIZE = 1000, FILEGROWTH = 200)

This statement failed. You thus received instruction to enable Rory Allen to create this database. You thus need to decide which would be appropriate action to take. What should you do? (Each correct answer presents part of the solution. Choose THREE.)

- A. Ensure that Rory Allen has a valid SQL Server login.
- B. Ensure that Rory Allen has a valid Windows account.
- C. Ensure that Rory Allen has a valid user account in the master database.
- D. Execute the sp\_addsrvrolemember 'RoryAllen' 'sysadmin' statement.
- E. Execute the sp\_changedbowner 'RoryAllen' statement.
- F. Execute the GRANT ALL TO RoryAllen statement.

G. Execute the GRANT CREATE DATABASE TO RoryAllen statement.

Answer: A, C, G

Explanation: Rory is not able to create a database because his user account has not been assigned the CREATE DATABASE permission. To be able to assign this permission to Rory Allen you also need to ensure that he has a valid SQL Server login as well as a user account in the master database. The CREATE DATABASE permission can only be granted in master.

Incorrect answers:

B : Ensuring a valid Windows account will not enable you to assign the CREATE DATABASE permission to Rory Allen.

D: If you execute the sp\_addsrvrolemember 'RoryAllen' 'sysadmin' statement then you would in essence be adding Rory Allen's user account to the sysadmin fixed server role. Only if Rory Allen was a member of sysadmin, would he be able to perform any action in that instance of SQL Server, including database creation. However, only administrators are usually members of this role.

E: If you execute the sp\_changedbowner 'RoryAllen' statement then you would change the owner of the database stored procedure. This action is not applicable in this case.

F: The GRANT ALL TO Rory Allen will grant permission to successfully execute all statements except for CREATE DATABASE to Rory Allen's user account.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing permissions."

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### **QUESTION 111:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

A Certkiller .com user named Amy Wilson connects to SQL Server via a SQL Server login named Amy. Amy Wilson's database user account has been assigned permission to create tables in CK\_Sales. Amy has been offered a job by a rival company and took the opportunity to leave Certkiller .com. To this end you need to remove Amy Wilson's credential from SQL Server. You execute the following statement:

sp\_droploginAmy

Unfortunately executing this statement does not have the desired effect and the login was not removed. You need to execute the appropriate statement to remove Amy Wilson's credentials.

What should you do?

- A. Execute the sp\_revokedblogin Amy statement.
- B. Execute the sp\_denylogin Amy statement.
- C. Execute the USE CK\_Sales  
EXEC sp\_revokedbaccess Amy  
EXEC sp\_droplogin Amy statement.
- D. Execute the USE CK\_Sales  
EXEC sp\_denydbaccess Amy  
EXEC sp\_droplogin Amy statement.

Answer: C

Explanation: You cannot remove Amy Wilson's SQL Server login by executing the sp\_droplogin statement since Amy Wilson's database user account has been granted permission to CREATE TABLE in CK\_Sales and her login would be mapped to the database user account. You first need to remove her database account from CK\_Sales. Once successfully removed from CK\_Sales, you can remove Amy Wilson's SQL Server login. If you make use of Enterprise Manager to remove Amy Wilson's login then all user accounts to which this login is mapped will automatically be dropped.

Incorrect answers:

- A: If you execute the sp\_revokedblogin Amy statement you in essence would be revoking login from a Windows 2000 or Windows NT user or group account. If Amy Wilson's user account were granted login, then performing this action without removing the database account will result in the Amy Wilson database user account becoming orphaned. This is not exactly removing Amy Wilson's credentials from SQL Server.
- B: If you execute the sp\_denylogin Amy statement then you would be denying login to Windows-based user accounts or groups.
- D: There is no such statement as sp\_denydbaccess in SQL Server.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security Accounts," "Removing Logins and Users."

## QUESTION 112:

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

The following table shows the database roles that you have created and the assigned permissions to a Customers table:

Users/Database Roles/Public	SELECT	INSERT	UPDATE	DELETE
 Sales	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
 Finance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
 Distribution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

A Certkiller .com user named Clive Wilson has Distribution database role



membership. While carrying out your duties as database administrator you conducted a routine audit of database activity. In this audit you found that Clive Wilson has been inserting data into the Distribution table. This is not in the interest of Certkiller .com and you need to revoke the INSERT permission from the Clive Wilson user account. To this end you revoke the INSERT permission from the Clive Wilson user account. However, later, you discover that Clive Wilson is still able to add rows to that table. You need to ensure that Clive Wilson will not be able to successfully issue INSERT statements against the Customers table.

You need to take the appropriate action to accomplish this task whilst ensuring that Clive Wilson is not granted any additional permissions in the dataset and that the other user's permissions are not affected.

What should you do?

- A. Clive Wilson user account must be denied the INSERT permission for Customers.
- B. Distribution should be denied the INSERT permission for Customers.
- C. The Clive Wilson user account should be added to the Finance database.
- D. The Clive Wilson user account should be added to the Sales database.

Answer: A

Explanation

: in the event of a user being assigned multiple rights for the same object, all the permissions that are assigned to a user's database account and all permissions that are assigned to database roles or group accounts of which the user enjoys membership is combined. This means the granted permissions are cumulative, and denied permissions override granted permissions of the same type for the same object, and revoked permissions clear the previously assigned permissions. Because it is mentioned in the question that you revoked Clive Wilson's INSERT permission from his user account, his user account does not explicitly have this permission for the Customers table. But it is also mentioned that Clive Wilson is a member of Distribution which does have the INSERT permission granted. Thus you should deny the INSERT permission to Clive Wilson's user account. This will ensure that he will not be able to add rows to the table and the other users in the Distribution group will not be affected even if he remain a member of the Distribution group deny permissions overrides granted ones of the same type.

Incorrect answers:

B: If you deny the Distribution group the INSERT permission then other users in the group will also be affected.

C: If you add Clive Wilson's user account to the Finance database then you would be preventing him from successfully inserting rows , but he would then also be able to successfully execute the UPDATE statement. It is mentioned pertinently in the question that you do not want Clive Wilson to be granted additional permissions in Customers.

D: If you add Clive Wilson's user account to the Sales database then you will not be preventing him from adding rows to Customers. Instead Clive Wilson will then have the ability to modify data in Customers.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server,

"Managing Security", "Managing permissions."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Resolving permission Conflicts."

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**QUESTION 113:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

There are certain Certkiller .com users that make use of an application. This application is multifunctional in that it allows these users to connect to CK\_Sales via an application. It also allows them to update information in CK\_Sales. The application also authenticates the user who starts the program and, depending upon the current user's identity, allows the user to manipulate data in CK\_Sales.

A Certkiller .com user named Amy Wilson is one of these members that make use of the application to connect to CK\_Sales. Amy Wilson is not allowed to change users' personal information in the Human Resource table in CK\_Sales. Under normal circumstances she cannot change these details, however, then she connects to SQL Server via the application, she finds herself able to change data in the Human Resource table successfully. Since she is not allowed to make these changes, you received instruction to ensure that Amy Wilson cannot make changes of this type whilst ensuring that her existing permissions and privileges that were directly assigned to her user account and through her memberships are not affected. What should you do? (Each correct answer presents a complete solution. Choose TWO.)

- A. The UPDATE permission for the Human Resource table must be revoked for Amy Wilson.
  - B. The UPDATE permission for the Human Resource table must be denied for Amy Wilson.
  - C. The application code should be modified to NOT use an application role when Amy Wilson is running the application.
  - D. The application code should be modified to make use of Windows Authentication and not SQL Server authentication.
  - E. An additional application role must be created for Amy Wilson.
- The application should be coded to activate that role when Amy Wilson runs the application.

Answer: C, E

Explanation: When taking into consideration the multifunctional nature of the application then one can deduce that once the application has connected to SQL server, it can either continue to run under the current user's security context or it

can invoke the application role by calling the sp\_setapprole stored procedure within the context of the appropriate database. In the event of the application relying on the current user's security context, then the CK\_Sales permissions that have been granted to the user are applied. And if the application is configured to activate an application role, then the permissions assigned to the application role are applied. The current user permissions are superseded by the application role permissions. In this scenario Amy Wilson belongs to a user group that has been assigned permission to update information in CK\_Sales and the application has probably been coded to use a specific application role when a member of that group runs the application. Also Amy Wilson is a member of this group, she must not be allowed this permission and this means that you cannot remove her from the group as it is also stipulated in the question that her current permissions should not be affected. Thus you should configure the application to respond differently when Amy Wilson runs the application:

You can code the application to run under the Amy Wilson security context rather than activating the application role when Amy Wilson starts the application. OR  
You could create an additional application role for Amy Wilson and code the application to activate that role when Amy Wilson runs the application.

Incorrect answers:

A: The question states that Amy Wilson under normal circumstances she cannot change these details, however, then she connects to SQL Server via the application, she finds herself able to change data in the Human Resource table successfully. Thus, the UPDATE permission has not been granted to her user account and thus you are not required to deny or revoke it.

B: The question states that Amy Wilson under normal circumstances she cannot change these details, however, then she connects to SQL Server via the application, she finds herself able to change data in the Human Resource table successfully. Thus, the UPDATE permission has not been granted to her user account and thus you are not required to deny or revoke it.

D: Even if the application makes use of Windows authentication instead of SQL Server authentication is irrelevant to this case.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing permissions," "Authentication Modes."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Advanced Security Topics," Establishing Application Security and Application Roles."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing permissions."

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#### **QUESTION 114:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01

hosts a database named CK\_Customers.

CK\_Customers includes 35 tables. These tables all contain data that should be Read-Only. You are required to prevent all users from modifying these tables whilst using the least amount of administrative effort.

What should you do?

- A. Create a view for each table and deny the INSERT, UPDATE and DELETE permissions for each view.
- B. The INSERT, UPDATE and DELETE permissions to the public role should be denied for each table.
- C. The SELECT, INSERT, UPDATE and DELETE permissions to the public role should be denied for each table.
- D. An application role must be created and all the database user accounts should be added to this role.  
Then the INSERT, UPDATE and DELETE permissions should be denied for that role.
- E. Create a Read-Only file group and move the 35 tables to that filegroup.

Answer: B

Explanation: Object permissions such as SELECT, INSERT, UPDATE, DELETE, REFERENCES and EXECUTE can be granted or denied by administrators to exercise control over the extent to which users are able to manipulate data. To prevent users from modifying data that are contained in the lookup tables, amongst the presented choices, you should deny the INSERT, UPDATE and DELETE to the public role which contains all the database user accounts. This will ensure that the tables are rendered Read-Only for all users except for members of the sysadmin fixed server role.

Incorrect answers:

A: This option is a viable solution, however, this option will also require that you need to deny the same permissions for each table as well in order to prevent users from accessing tables directly. This amounts to more administrative effort than is required.

C: Denying SELECT to the public role for each table will prevent users from retrieving data from these tables.

D: Application roles cannot contain database user accounts.

E: This option will also work, but it involves extra administrative effort and considerations such as sufficient space and additional strain on the system resources. The extra administrative effort can be negated by simply denying object permissions to the public role.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing permissions."

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## **QUESTION 115:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client

computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

You received a report from the Certkiller .com Sales manager named Rory Allen. In his report Rory Allen mentions that data in CK\_Sales has been improperly manipulated. You need to investigate this issue and consequently discovered that only members of a user-defined database role named DBAdmins have the necessary permissions to manipulate data in this particular way.

You analyze a SQL Server audit log and found that a Certkiller .com user named Andy Reid was the one responsible for this change. Andy Reid is not supposed to be a member of DBAdmins. Your investigation of the audit log also revealed that Clive Wilson added Andy Reid to this role. You need to prevent this situation from happening again and thus remove Andy Reid's user account from DBAdmins. There is however an additional step required to prevent Andy Reid from being reassigned to the DBAdmins database role.

What should you do?

- A. Andy Reid should be assigned to the db-denydatareader fixed database role.
- B. Andy Reid should be assigned to the db\_denydatawriter fixed database role.
- C. Clive Wilson should be removed from the db\_securityadmin fixed database role.
- D. Clive Wilson should be removed from the db-accessadmin fixed database role.

Answer: C

Explanation: Due to Clive Wilson's membership of the db\_securityadmin fixed database role, he was able to add Andy Reid to the DBAdmins group. You need to remove Clive Wilson from this role to prevent him from adding users to roles and thereby granting them inappropriate permissions within CK\_Sales.

Incorrect answers:

A: Assigning Andy Reid to the db\_denydatareader fixed database role may be inappropriate depending on his job requirements. This database role prevents users from selecting information from a database and it could be that Andy Reid needs to be able to read data in CK\_Sales.

B: Assigning Andy Reid to the db\_denydatawriter fixed database role may be inappropriate depending on his job requirements. The db\_denydatawriter database role prevents users from changing information in a database.

D: Having membership of the db-accessadmin fixed database role allows Clive Wilson the ability to add and remove database users, but it does not enable him to grant or deny any permissions in the database or control database role memberships.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: SQL Server Architecture, "Database Architecture", "Logical Database Components," Logins, Users, Roles and Groups."

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## **QUESTION 116:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Merchandise.

Several users make use of a custom application to access CK\_Merchandise. This custom application allows them to update information in the ProductsOnHand table. All these users will require the same level of permissions. The custom application has been coded to authenticate users internally and to access CK\_Merchandise by using an application role named DataEntry. You are required to create a login for the application whilst using the least amount of administrative effort.

What should you do?

- A. A Windows user account named Certkiller \DataEntry should be created. Then grant login to the Certkiller \DataEntry account.
- B. A Windows user account named DataEntry should be created. Then assign the login permission for it.
- C. A SQL Server account named DataEntry should be created. Then code the custom application to use this account.
- D. A SQL Server login must be created for each user. Then code the custom application to use the login of the user who is running the custom application.

Answer: C

Explanation: Database application's function is to ease the usage of the database. Thus it can be coded to call stored procedures in the database, provide security, authenticate users internally, to connect using the appropriate instance of SQL Server. In this case the custom application can be coded to use a single SQL Server login and a single application role because it is mentioned that users should have the same level of permissions in CK\_Merchandise while connected to it via the custom application. It also is not stipulated that auditing is required thus it will not be necessary to have SQL Server determine the current user identity.

Incorrect answers:

- A: Client applications such as this custom application run under the security context of the user that started the application.
- B: When considering granting a login to a Windows user account, the domain name and the backslash should precede the user name. However, client applications cannot run under another user's security context, they run under the security context of the user who started the application.
- D: Creating a SQL Server login for each user and coding the custom application to use that login will require unnecessary administrative effort than is required under the circumstances. All that is required is to create a single SQL Server login for the custom application.



Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Advanced Security Topics," Establishing Application Security and Application Roles."

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**QUESTION 117:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Information.

Often it happens that data errors occur in CK\_Information because the Certkiller .com employees do not make proper use of the SQL statements when executing them. As a result Certkiller .com issued a new company directive: a custom application to prevent users from directly accessing the database must be implemented. Now all employees are required to access CK\_Information through the custom application. You need to comply with the new directive and must ensure that no employee is able to directly access CK\_Information. To this end you revoke all appropriate permissions from each employee's database user account. Now you need to decide on the following step.

What should you do?

- A. Code the application to use the db\_owner fixed database role.
- B. Code the application to run under a current user's account security context.
- C. Create a user-defined database role and code the application to use it.
- D. Create an application role and code the application to use it.

Answer: D

Explanation: the application should be coded to use a SQL Server login to connect to CK\_Information. Then the application should be coded to call the sp\_setapprole stored procedure in the context of the appropriate database. The application will supply the appropriate password, and an application role will be activated. The application role must be granted the appropriate [permissions in the data base so as to allow users to perform job-related functions. When a user runs the application and the application role has been activates, any permissions associated with that user, even those through group memberships will be ignored. The permissions that have been assigned to the application role will become the resultant effective permissions for that user.

Incorrect answers:

A: Making use of fixed database roles is not a recommended practice in this type of scenario because some users might be able to use the login and the associated user account to directly access CK\_Information.

B: If the application is coded to run under the security context of a current user, then the user's account would have to be assigned the necessary permissions to access



CK\_Information. This means that the user will be able to access CK\_Information directly.

C: Making use of user-defined database roles is not a recommended practice in this type of scenario because some users might be able to use the login and the associated user account to directly access CK\_Information.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Advanced Security Topics," Establishing Application Security and Application Roles."

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### **QUESTION 118:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. Certkiller .com is currently in a joint venture with a partner company. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Finance.

Access to CK\_Finance must be restricted to authenticated users only. As such no guest account has been created in CK\_Finance. (A guest account enables users who have a valid login but no user account in CK\_Finance to access the database.)

The Guest Windows user account in the Certkiller .com domain has been granted login in SQL Server. The Guest Windows user account is used by the partner companies who require limited access to SQL Server. You discovered that the partner company that makes use of this account can gain access to CK\_Finance. This is unacceptable and you have thus received instruction to ensure that users that connect to SQL Server using the domain Guest Windows user account should not be able to access CK\_Finance. You thus need to decide on the appropriate statement to execute.

What should you do?

- A. Execute the USE CK\_Finance  
EXEC sp\_revokedbaccess guest statement.
- B. Execute the USE CK\_Finance  
EXEC sp\_dropuser guest statement.
- C. Execute the sp\_revokelogin ' Certkiller \guest' statement.
- D. Execute the USE CK\_Finance  
EXEC sp\_revokedbaccess ' Certkiller \guest' statement.

Answer: D

Explanation: The guest database user account is not automatically created. An administrator has to create the guest account within the context of a database, but no login can be mapped to the guest account in any given database. This means that the created guest account in CK\_Finance will permit a user with a valid login, but without a

user account in CK\_Finance to access the database with the permissions that have been assigned to guest and to the public database role, of which all database users accounts enjoy membership. To prevent the partner company from accessing CK\_Finance while still ensuring that they are able to log in to SQL Server, you should execute the sp\_revokedbaccess stored procedure in the context of CK\_Finance and specify the domain name and the Guest Windows user account.

Incorrect answers:

A: When one calls the sp\_revokedbaccess stored procedure in the context of CK\_Finance, then one effectively remove the specified database user account and any permissions that are associated with that user account from the database. This is not what is required in this scenario.

B: When one calls the sp\_dropuser stored procedure in the context of CK\_Finance, then one effectively remove the specified database user account and any permissions that are associated with that user account from the database. This is not what is required in this scenario.

C: If you execute the sp\_revokelogin 'Certkiller \guest' statement, then you would be preventing the partner company from logging in to SQL Server and this is not what is required since they should only be prevented from accessing CK\_Finance.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Security Rules."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Adding a Windows User or Group."

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### **QUESTION 119:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales.

There are several Certkiller .com employees that require the same level of access to CK\_Sales. These employees are all members of a Windows 2000 group named Research in the Certkiller .com domain. You are required to provide these employees with access to CK\_Sales. You thus need to execute the appropriate statement. What should you do?

A. Execute the sp\_grantdbaccess 'Research'  
USE CK\_Sales

EXEC sp\_grantlogin 'Research' statement

B. Execute the sp\_grantlogin Certkiller \Research  
USE CK\_Sales

sp\_grantdbaccess Certkiller \Research statement

C. Execute the sp\_grantlogin 'Certkiller \Research'  
USE CK\_Sales

```
EXEC sp_grantdbaccess ' Certkiller \Research', Research statement  
D. Execute the USE CK_Sales  
sp_grantlogin 'Research'  
EXEC sp_grantdbaccess 'Research' statement
```

Answer: C

Explanation: To allow the Research group members access to SQL Server, you should first grant login to their Windows 2000 group. Do this by executing sp\_grantlogin stored procedure. Since it is mentioned in the question that Research exists within a Windows 2000 domain, the group name must be preceded by the domain name and the backslash. To enable the research group members to access CK\_Sales, you need to map the Windows 2000 login to a user account in that database. Do this by executing the sp\_grantdbaccess stored procedure in the context of the appropriate database. In this case CK\_Sales. Do include the login name and the database user account as parameters. If the database user account is omitted then the procedure will create a database user account with the same name as the specified login.

Incorrect options:

A: Single quotation marks around the Windows 2000 group or user account is required as the appropriate syntax. In this case the Windows 2000 domain name should also be included.

B: EXEC is required when the statement call a stored procedure that is not the first in a batch.

D: Windows group or user accounts must be assigned login before they can be granted access to a particular database.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Adding a Windows User or Group."

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### **QUESTION 120:**

You work as the database administrator at Certkiller .com. Each department in the company is run as a separate domain on the Certkiller .com network. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Information.

A Certkiller .com user named Mia Hamm makes use of CK\_Information to perform certain job-related functions. Mia Hamm enjoys membership of the Sales domain. Currently her Windows domain user account is granted login to the SQL Server. In the following week Mia Hamm will be filling in for an employee in the Marketing department. This arrangement will be valid for a whole month. Thus during this month Mia Hamm is not allowed to log in to SQL Server. However, upon her return to the Sales domain, her existing permissions in CK\_Information should be reinstated. You have been assigned to address this issue with the least amount of effort.

What should you do? (Each correct answer presents a complete solution. Choose TWO.)

- A. You should execute the sp\_revokelogin 'MiaHamm' statement.
- B. You should execute the sp\_revokelogin 'Sales\MiaHamm' statement.
- C. You should execute the sp\_dropuser 'Sales\MiaHamm' statement.
- D. You should execute the sp\_denylogin 'MiaHamm' statement.
- E. You should execute the sp\_denylogin 'Sales\MiaHamm' statement.
- F. Open Enterprise Manager and right click Mia Hamm's login. Select Deny Access on the General tab of the Properties sheet.

Answer: E, F

Explanation: From the question one can deduce that Mia Hamm uses her Windows domain user account to connect to SQL Server. Thus to prevent her from accessing CK\_Information while preserving her permissions, you should execute the sp\_denylogin stored procedure and specify the appropriate domain name and user account.

Reinstatement can be achieved by merely executing the sp\_grantlogin stored procedure specifying the appropriate domain name and user account.

You can also open Enterprise Manager and right-click Mia Hamm's login to Deny Access on the General tab. Reinstatement is done by merely selecting the Grant Access option on the same tab.

Incorrect answers:

A: Executing the sp\_revokelogin 'MiaHamm' statement will remove logins associated with Windows 2000 or Windows NT groups. This stored procedure cannot be executed when you do not specify the user's domain and account information.

B: Executing the sp\_revokelogin 'Sales\MiaHamm' statement will result in her login and all subsequent permissions and role memberships being removed from the database. Thus you will need to recreate her login and all subsequent permissions and role memberships upon her return. Not quite the least amount of effort.

C: The

sp\_dropuser 'Sales\MiaHamm' statement is used for backward compatibility purposes and must be executed within the context of a database.

D: Executing the sp\_denylogin 'MiaHamm' statement would be incorrect in that you will also require to specify the domain name and the user account.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security accounts," Denying Login access to Windows Accounts."

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Managing Security accounts," Removing logins and Users."

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## **QUESTION 121:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All

servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01.

There are currently five databases that reside on the same instance of SQL Server 2000 in the Certkiller .com domain. You need to reduce administrative overhead and thus want to appoint five of your assistants to fully manage the databases. Each of these assistants will then be responsible for a single database. All these assistants enjoy membership of a group names AdminAssist.

You now need to enable each of these assistants to manage their respective databases.

What should you do?

A. You should carry out the following script for each database:

```
sp_grantlogin ' Certkiller \AdminAssist'
```

```
USE db_name
```

```
EXEC sp_grantdbaccess ' Certkiller \AdminAssist', AdminAssist
```

```
EXEC sp_addrolemember db_owner, AdminAssist
```

B. You should carry out the following script for each database:

```
sp_grantlogin ' Certkiller \AdminAssist'
```

```
USE db_name
```

```
EXEC sp_grantdbaccess ' Certkiller \AdminAssist', AdminAssist
```

```
EXEC sp_addsrvrolemember serveradmin, AdminAssist
```

C. You should carry out the following script with the appropriate user name and database name for each assistant:

```
sp_grantlogin ' Certkiller \user_name'
```

```
USE db_name
```

```
EXEC sp_grantdbaccess ' Certkiller \user_name', user_name
```

```
EXEC sp_addrolemember db_accessadmin, user_name
```

D. You should carry out the following script with the appropriate user name and database name for each assistant:

```
sp_grantlogin ' Certkiller \user_name'
```

```
USE db_name
```

```
EXEC sp_grantdbaccess ' Certkiller \user_name', user_name
```

```
EXEC sp_addrolemember db_owner, user_name
```

Answer: D

Explanation: Each Windows domain user account of the five assistants must be granted login in SQL Server. The user name must be preceded by the domain name and the backslash. Once the login is granted, you should then switch to the context of the target database.

Then you should create a user account in the database and map it to the appropriate login. This can be done by using the sp\_grantdbaccess stored procedure. Finally you should add the database user account to the db\_owner fixed database role to allow these individual assistants to fully manage their assigned databases.

Incorrect answers:

A: If you granted database access to AdminAssist group and specified this group as the owner of each database, then each assistant will end up receiving administrative privileges in all five databases.

B: If you added the AdminAssist group to the serveradmin fixed server role, then the members of this group will end up being able to make changes that will affect the entire server and not just the database that they are supposed to manage.

C: If you added each assistant to the db\_accessadmin fixed database role, then those assistants would be able to add or remove database user accounts. Membership in this database role would thus not be sufficient to fully manage their assigned databases respectively.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Adding a Windows User or Group."

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### **QUESTION 122:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all database servers run SQL Server 2000. The Certkiller .com network contains a database server named Certkiller -DB01.

You need to create an audit plan for Certkiller -DB01. The audit plan must include the number of times a stored procedure executes. You want to gather the data over a set period of time so you can estimate how often the stored procedure is used in a typical load scenario. You want to obtain this information using the least amount of administrative effort.

What should you do?

- A. Modify the stored procedure to include the SET NOCOUNT ON statement.
- B. Modify the stored procedure to send a message to the Application log.
- C. Use the SQL Server Profiler to create a trace file.
- D. Use System Monitor to monitor the execution of the stored procedure and save the results to a file.

Answer: C

Explanation: You can use SQL Server Profiler to create a trace that includes information that can be used to determine how many times the stored procedure has been executed.

Incorrect Answers:

A: Altering the stored procedure to include the SET NOCOUNT ON statement will reduce network traffic as clients do not receive messages indicating the number of rows affected by the stored procedure. However, it will not indicate how many times the stored procedure executed.

B: You can alter the stored procedure to send a message to the Application log every time it executes but you would need to check the Application log to determine how many times the stored procedure executed. This would require more administrative effort than using

the SQL Server Profiler.

D: The System Monitor is used to monitor system resources. It is not used to monitor stored procedures.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Manage Auditing."

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### **QUESTION 123:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows Server 2000 and all client computers run Windows 2000 Professional.

The Certkiller .com network contains ten Microsoft SQL Server 2000 servers which you administer. Certkiller .com management has recently decided to tighten network security. A new Certkiller .com security policy requires that only network users with security clearance can manage security principals and roles. You additionally need to audit the users who are currently making such changes on the database servers whilst your solution does not impact performance more than required.

What should you do?

- A. Object access event auditing should be enabled in Audit Policy.
- B. Auditing for account management events should be enabled in Audit Policy.
- C. C2 audit mode for the SQL Server instance must be enabled.
- D. A SQL Server Profiler trace should be created.

Answer: D

Explanation: In the scenario you should consider making use of the SQL Server Profiler trace as the Security Audit Event Category includes the events necessary for the information required. You can further more tune the trace template so that only the events you require are logged to keep trace from impacting performance.

Incorrect Answers:

A, B: The Audit Policy should not be used in the scenario because the Windows policy setting controls auditing for the management of Windows accounts not SQL Server accounts.

C: The C2 auditing mode should not be used in the scenario because the mode logs more than just the required information taking up more resources than required.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Contents: Administering SQL Server, "Managing Security", "Creating Security Accounts," Manage Auditing."

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### **QUESTION 124:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named



Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You have recently configured a job and scheduled it to run in the background on a SQL Server 200 computer when the CPU usage falls below a specified level. During the course of the business week you discover that the job you scheduled only runs on weekends. You later decide to monitor SQL Server activity and discover that the CPU usage frequently fall below the specified level during business hours. You are required to configure the job to run anytime the CPU usage falls below the specified level.

What should you do?

- A. A second schedule should be added to the job and specify that the job execute at lunch time.
- B. The computer should be upgraded to a dual-CPU system.
- C. In the job's schedule you should specify that the job should execute on weekdays.
- D. The amount of time that the CPU usage must remain below the specified level should be reduced before the job will execute.

Answer: D

Explanation: In the scenario you should remember that you are able to schedule routine tasks by creating jobs and you are capable of scheduling the jobs to execute at any time. By reducing the amount of time the CPU is to remain under the specified level should ensure that the task executes.

Incorrect Answers:

- A: This option should not be used in the scenario because the job will execute at lunch time whether the CPU usage is below the specified level or not.
- B, C: In the scenario you should remember that a job schedule is based on the CPU idle time and cannot be based on any other criteria such as days and times.

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### **QUESTION 125:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

Certkiller .com makes use of a SQL Server 2000 database to store the business information. Certkiller .com requires that the database is available at all times during business hours. You are responsible for performing database maintenance only in a specific period of time at the end of each day with which to backup the database.

During the course of the week you discovered that as a result of substantial changes to the data that one of the database files has become too large. You also know that the database file is not too densely populated with data. You are required to shrink the database file whilst not disrupting user activity during the day. You are not able to perform these activities outside business hours.

What should you do?

- A. Data from the database file should be removed and archived to a decision-support system (DSS) database.
- B. A job should be created that executes a DBCC SHRINKDATABASE statement and schedule the job to run during off-peak hours.
- C. The database file should be shrunk during the designated maintenance time.
- D. The database should be shrunk during the day.

Answer: D

Explanation: In the scenario you should always remember that the truncation of a shrink operation can not be performed when a backup is in progress. This will cause the shrink operation to fail so running this task during the day achieves the scenario objective.

Incorrect Answers:

- A: This option should not be considered in the scenario as it is stated that the database is not densely populated with data.
- B: This option should not be used in the scenario because you are not required to shrink all the databases you are only required to shrink one database.
- C: This option should not be considered in the scenario because it is stated that this task should not be performed out side business hours.

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### **QUESTION 126:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. You are in the process of creating a job that will run automatically each time a SQL Server computer starts.

During the course of the day you turn off the SQL Server computer on Friday night and turn it on Monday morning. You are required to select after which of the following you should schedule the job to run.

What should you do?

- A. You should schedule the job to run after the SQL Server Agent starts.
- B. You should schedule the job to run at once.
- C. You should schedule the job to run after the CPU becomes idle.
- D. You should schedule the job to run every Monday at 8:00 A.M.
- E. You should schedule the job to run after the SQL Server starts.

Answer: A

Explanation: In the scenario you should remember that jobs are primarily used to

automate certain tasks. Configuring the job to run after the SQL Server Agent starts guarantees that any settings you configured will all successfully complete.

Incorrect Answers:

B: This option should not be used in the scenario because this would require the administrator to specify a particular date and time or several respectively.

C: This option should not be used in the scenario as it is irrelevant to when the job you configures should start.

D: This option should not be used in the scenario as there is no guarantee that the systems would be restarted the same times.

E: This solution is only partly correct because the SQL Server Agent service is also required to ensure that all configured tasks will take place as scheduled.

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**QUESTION 127:**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all database servers run SQL Server 2000. The Certkiller .com network contains a database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company.

You create a maintenance named JobA that is run manually by Certkiller .com users in the Sales department. A month later you become concerned that Sales department users may neglect running JobA and want determine when JobA was last run.

What should you do? (Choose all that apply.)

- A. Run the sp\_monitor stored procedure.
- B. Run the sp\_help\_jobhistory stored procedure.
- C. Run the sp\_help\_jobactivity stored procedure.
- D. Run the sp\_help\_job stored procedure.

Answer: B, D

Explanation: The sp\_help\_job and the sp\_help\_jobhistory stored procedures returns information about a job, including when the job was last run.

Incorrect answers:

A: The sp\_monitor stored procedure returns server activity statistics. It does not return information related to when a job was last run.

C: SQL Server 2000 does not have an sp\_help\_jobactivity stored procedure.

Reference:

Microsoft SQL Server 2000 Books Online (2004), Index: sp\_monitor

Microsoft SQL Server 2000 Books Online (2004), Index: sp\_help\_jobhistory

Microsoft SQL Server 2000 Books Online (2004), Index: sp\_help\_job

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**QUESTION 128:**

You work as the network database administrator at Certkiller .com. The

Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. You have recently received instruction from the Certkiller .com CIO to create a multiserver job on a master SQL Server 2000 computer. During the course of the day you modify the multiserver job using the sp\_update\_jobstep stored procedure.

You are required to ensure that the target servers update the job information immediately to run the modified version of the job by selecting which stored procedure to execute.

What should you do?

- A. You should execute the sp\_post\_msx\_operation stored procedure.
- B. You should execute the sp\_msx\_update stored procedure.
- C. You should execute the sp\_msx\_defect stored procedure.
- D. You should execute the sp\_msx\_enlist stored procedure.

Answer: A

Explanation: In the scenario you should always keep in mind that executing the stored procedure updates the sysdownloadlist system table which contains job information for the target servers. The Target server will download the complete job definition again.

Incorrect Answers:

B: This option should not be considered for usage in the scenario because there is no sp\_msx\_update stored procedure that exists in SQL Server 2000.

C: This option should definitely not be used in the scenario because the sp\_msx\_defect stored procedure is used to remove the current server from consideration as a target server.

D: This option should not be used in the scenario because the sp\_msx\_enlist stored procedure is used to configure an instance of SQL Server as a target server for a master server.

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### **QUESTION 129:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional. Certkiller .com has a main office and several branch offices.

You are responsible for administering 15 instances of SQL Server 2000 running on different computers in several branch offices. The main office SQL Server is configured as the master server and the remaining SQL Server instances are configured as target servers. You have recently received instruction from the Certkiller .com network CIO to implement a new SQL Server at the main office. The

new server will be configured as an additional master server.

You are required to configure 5 of the target SQL Server 2000 computers to use the new master servers as their master using the least amount of administrative effort to accomplish the task.

What should you do?

- A. The 5 target servers should be defected on the original master server. The new instance of SQL Server should then be defined as a master and enlist the 5 target servers.
- B. All the target servers should be defected on the original master server. The new instance of SQL Server should then be defined as a master server and enlist the 5 target servers. You should finally re-enlist the remaining 9 target server on the original master server.
- C. The new instance of SQL Server should be defined as a master and enlist the 5 target servers.
- D. The new instance of SQL Server should be defined as a master. You should then defect the 5 target servers from the original master server using the new instance of SQL. You should then finally enlist them as target servers of the new instance of SQL Server.

Answer: A

Explanation: In the scenario you should remember the you should use Enterprise Manager to configure the new master server and enlist the 5 target servers. You should also keep in mind that Enterprise Manager can accomplish the task as it offers several methods of configuring master servers.

Incorrect Answers:

- B: You should not take this action in the scenario as you are required to defect only 5 target server, this action creates additional administrative effort.
- C: In the scenario you should remember that target servers can be registered to only one master server taking the actions in this option is incorrect.
- D: You should not use this option in the scenario because Enterprise Manager can accomplish the task as it offers several methods of configuring master servers. The Enterprise Manager enables defecting a target server while connected to the target server or its master server.

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### **[QUESTION 130:](#)**

You work as the database administrator at Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all database servers run SQL Server 2000. The Certkiller .com network contains a database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company.

You create a maintenance job that runs two statements against the CK\_Sales database and schedule the job to run every evening at 7:30 P.M. The following morning you confirm that the job ran on schedule. A month later you discover that the job has failed and no longer runs on schedule. You need to determine the cause of the problem.

What should you do?

- A. Run the sp\_monitor stored procedure.
- B. Run the sp\_trace\_setstatus stored procedure.
- C. Search the Application log in Event Viewer for SQL-related error messages.
- D. Run the sp\_help\_jobhistory stored procedure.

Answer: D

Explanation: The sp\_help\_jobhistory stored procedure returns information about the cause of a job failure.

Incorrect answers:

- A: The sp\_monitor stored procedure is used to enable and disable statistics about SQL Server 2000. It does not return information about the cause of a job failure.
- B: The sp\_trace\_setstatus stored procedure is used to start, stop or close a trace. It does not return information about the cause of a job failure.
- C: You can use the Application log to determine the cause of a job failure as the Application log does not record such events.

Reference:

- Microsoft SQL Server 2000 Books Online (2004), Index: sp\_help\_jobhistory
- Microsoft SQL Server 2000 Books Online (2004), Index: sp\_trace\_setstatus
- Microsoft SQL Server 2000 Books Online (2004), Index: sp\_monitor

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### **QUESTION 131:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

Certkiller .com has recently appointed a new part-time system administrator who is responsible for coming to work on Fridays. The newly appointed system administrator has recently implemented SQL Server 2000 which is currently under evaluation and is not yet used to support mission-critical business operations.

The part-time administrator has configured the SQL Server to notify you when errors occur in the administrator's absence. On the next Monday you discovered that you received notifications indicating that the transaction log in the CK\_Orders database is full. You additionally received the same error messages throughout the day but then you to stop receiving these messages. You want to know why you stopped receiving the error messages and what the cause could be.

What should you do?

- A. To conserve system resources the same error message is displayed only a specific number of times.
- B. The SQL Server configuration was automatically adjusted and resolved the problem.
- C. Because of the full transaction log the SQL Server Agent has stopped running.
- D. The Windows Application log is full.

Answer: D

Explanation: In the scenario you should always remember that in order to prevent the transaction log from becoming full that you should frequently backup the log using the default options or switch to the Simple Recovery model.

Incorrect Answers:

A, B, C: In the scenario you should remember that each sysmessage error of severity 19 or higher is recorded in the Windows Application log. If the log becomes full and is not configured to overwrite events then you will stop receiving the error messages until the existing events are saved or deleted to free space.

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**QUESTION 132:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. Certkiller .com has its headquarters in Miami and branch offices in Chicago and Detroit. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering several instance of SQL Server 2000 at the main office. You have recently received instruction to define 50 alerts in an instance of SQL Server 2000. The alerts you are defining should be defined on all the branch office SQL Server 2000 computers. You are required to achieve the scenario using the least amount of administrative effort.

What should you do?

- A. One script should be generated for each of the alerts and run each script on a destination server.
- B. A DTS package should be created to copy the msdb database to each destination server.
- C. A DTS package should be created to copy the master database to each destination server.
- D. One script should be generated for all the alerts and run the script on each destination server.

Answer: D

Explanation: In the scenario you are required to have the same alerts configured on all the branch office SQL Server 2000 computers. You achieve the scenario using the least administrative effort when creating a single script which defines all the configured alerts.

Incorrect Answers:

A: This option should not be considered in the scenario because you are required to use the least administrative effort and this action does not comply.

B, C: In the scenario you should remember that it is not recommended to copy the



msdb database as the servers are configured with different information. You should also not copy the master database as it holds database startup settings.

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**QUESTION 133:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. You have recently received instruction from the Certkiller .com network CIO to create a Data Transformation Services (DTS) package that will be used to export the weekly sales data from the database into a decision-support system (DSS) database.

You are in the process of configuring this package to be scheduled to run every Friday at 12:30 A.M. You are required to be notified if the package fails and should accomplish the task using the least amount of administrative effort.

What should you do?

A. The DTS package should be configured to write an event to the application log upon completion and configure an alert to notify you.

B. The

DTS package should be configured to log its execution in SQL Server and configure an alert to notify you.

C. An Execute Process task should be included in the DTS package that executes when an error occurs in the package and configure an alert to notify you.

D. An Execute SQL task should be included in the DTS package that executes when an error occurs in the package and configure an alert to notify you.

Answer: A

Explanation: In the scenario you should always remember when enabling this option an event will be written to the Application log when the package completes. You should then configure the alert for this specific event to fire when the error is logged.

Incorrect Answers:

B, D: This option could be used in the scenario but should not be used as it requires to much administrative effort to implement than simply enabling Write completion status to event log.

C: This option should not be used in the scenario because this action requires to much administrative effort to implement and the package execution would record data for each step in the msdb database.

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**QUESTION 134:**

You work as the network database administrator at Certkiller .com. The

Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional. Certkiller .com has its headquarters in Chicago and branch offices in Dallas and Miami. The branch offices are connected to the main office by 512-Kbps links.

You are responsible for administering multiple SQL Server 2000 database of Certkiller .com which is used to store business information. Certkiller .com has recently expressed concerns that the branch office database administrators are not properly trained. The branch office networks currently have their technical personnel available to perform general administrative duties.

You have recently received additional instruction from the Certkiller .com network CEO to monitor each instance of SQL Server from the main office using the least administrative effort.

What should you do?

- A. The branch office local administrators should be instructed to e-mail all SQL Server event messages to you
- B. A trigger should be configured on the Application log that will fire each time an event message with a specified severity level is recorded
- C. The msdb database should be periodically sent from the branch offices to a SQL Server at the main office
- D. From Enterprise Manager you should connect to all remote instances of SQL Server and configure events to be forwarded from the branch office servers to a master server at the main office.

Answer: D

Explanation: In the scenario you should keep in mind that using the Enterprise Manager you are able to connect to each instance of SQL Server and make the appropriate configuration changes as required. Taking this action in the scenario does involve the least amount of administrative effort.

Incorrect Answers:

- A: This option should not be used in the scenario as there is proper connectivity, this option would require more administrative effort to implement.
- B: This option should not be considered in the scenario because you are not able to configure triggers in the Windows application log.
- C: There is no need to take this action in the scenario as you are required to be notified when certain events occurred in the branch offices.

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### **QUESTION 135:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network contains a Microsoft SQL Server 2000 database server

named Certkiller -DB01 which you administer. Certkiller -DB01 hosts a database named CK\_Manufacturing that is responsible for driving the manufacturing process and monitoring of equipment. The monitoring of equipment is accomplished through stored procedures.

You are required to ensure that only the on-duty manager is paged if the temperature of equipment reaches a specific point. You create a trigger on the table to raise an error by msgid if the value is exceeded. You are required to choose the additional steps to take.

What should you do? (Choose all that apply)

- A. A Windows Performance alert should be created
- B. An Event Notification should be created
- C. Operators should be created for each manager
- D. A SQL Server Agent alert should be created
- E. sp\_messages should be run to add the error messages to the sys.messages table

Answer: C, D, E

Explanation: You should remember in the scenario that you can use the SQL Server Agent to configure alerts that page the operator in response to SQL Server object counter values, errors logged to the Windows event log or the Windows Management Instrumentation (WMI) events.

Incorrect

Answer:

A: This option should not be considered for creation in the scenario because the alert type is not used to respond to errors raised in SQL Server triggers.

B: This option should not be considered for creation in the scenario because the option could be used in the scenario but this option requires too much administration effort.

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### **QUESTION 136:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

The network users of Certkiller .com has recently began experiencing difficulties when they attempt to connect to an instance of SQL Server 2000. The network users complain that there connections are very slow and are sometimes dropped because they timeout when the users try and manipulate data in the databases.

You later decide to make use of System Monitor and select he counters below:

1. Processor: % Processor Time
2. Processor: % Privileged Time
3. Processor: % User Time

During the course of the business day you discover that the value of the Processor: % Processor Time counter is approximately 80 and the value of the Processor: % Privileged Time counter is usually between 90 and 95. You additionally discover

that the Processor: % User Time counter is usually between 15 and 20. You are required to prevent the user connections from timing out. What should you do?

- A. You should implement a striped volume to host the databases.
- B. You should upgrade to a faster CPU.
- C. You should add more disks to the server.
- D. You should implement a hardware RAID device to host the databases.

Answer: D

Explanation: In the scenario it should be recommended that we make use of a hardware RAID solution because this type of solution is generally faster than software RAID solutions and do not require as much system resources.

Incorrect Answers:

- A: This option should not be used in the scenario because there is no indication in the scenario that the current disk is at a premium.
- B: This option should not be considered in the scenario because upgrading to a faster CPU will not solve the performance problems.
- C: This option should not be considered in the scenario because there is no indication that the disk is at a premium so adding more disk would not solve the performance problem.

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### **QUESTION 137:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. The network users of Certkiller .com have recently started reporting that the overall performance of the database is very poor. During your maintenance tasks you open System Monitor and examine the counters and values below:

- 1. Memory: Pages/sec 300
- 2. Physical: % Disk Time 260
- 3. Processor: % Processor Time 10

You are required to improve the overall performance of the SQL Server computer. What should you do?

- A. You should add additional RAM.
- B. You should increase the virtual memory.
- C. You should upgrade the physical disk.
- D. You should upgrade the CPU.

Answer: A

Explanation: In the scenario you should definitely consider adding additional RAM to the SQL Server computer because the System Monitor output indicates that the server requires more RAM to alleviate the performance problems in the scenario.

Incorrect Answers:

B: You should not do this in the scenario because the current output indicates that a large amount of paging takes place as a result of having too little RAM, increasing the value will not improve performance.

C: You should first determine how many disk drives the server has in order to properly conclude that the disk subsystem requires upgrading.

D: This option should not be used in the scenario because the counter value is acceptable, the amount of RAM in the SQL Server is inefficient, and this raises the disk time activity as paging takes place.

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### **QUESTION 138:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional. You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information.

Certkiller .com network users make use of a custom application to connect to the SQL Server. Certkiller .com has recently decided to change their business practice policies. The new business practice requires that the custom application be changed since the application is based on stored procedures which have been changed to comply with the new business practice. Certkiller .com has authorized some employees to access the database directly whilst the other users use the custom application. The authorized employees make use of Query Analyzer to execute queries.

The Certkiller .com network users recently started reporting that the application is much slower. During the course of the day you decide to use System Monitor and select several counters and discover the following values:

1. PhysicalDisk: Avg. Disk Queue Length has a value of 1
2. SQLServer: BufferManager Buffer cache hit ratio has a value of 99
3. SQLServer:Memory Manager Lock Blocks in context of the database has a value of 15
4. SQLServer:Cache Manager: Cache Hit Ratio of Adhoc Sql Plans has a consistent value above 95
5. SQLServer:Cache Manager: Cache Hit Ratio of Procedure Plans instance has a value of 1

You are required to improve the performance of the custom application for the network users of Certkiller .com.

What should you do?

- A. The WITH RECOMPILE option should be removed from the definition of the stored

procedure that the application uses.

B. All application that access the database should be configured to operate implicit transactions mode.

C. You should add an additional disk drive.

D. You should add an additional CPU.

Answer: A

Explanation: In the scenario you should always remember because the Procedure Plans has a low value the SQL Server is ignoring the cached execution plans when executing stored procedures because of the WITH RECOMPILE option in the definition of the stored procedure.

Incorrect Answers:

B: This option should not be considered in the scenario as it will deteriorate the performance by holding locks for longer periods of time.

C: This action should not be taken in the scenario, the only time to add an additional disk drive would be if the counter value is greater than 2.

D: This option should not be used in the scenario as there was no data captured for the Processor counters and you cannot accurately access the need for an additional CPU.

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### **QUESTION 139:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. The network users of Certkiller .com have recently started reporting that the overall performance of the database is very poor. During your maintenance tasks you open System Monitor and add several counters for review below:

1. Memory: Pages/sec
2. PhysicalDisk: Average Queue Length
3. Processor: % Processor Time

During the course of the week you review the System monitor results and discover that the Processor: % Processor Time counter is above 95, Memory: Pages/sec has a value that is usually low and at times 20. The PhysicalDisk: Average Queue Length counter has a value between 1 and 2. You are required to improve the performance of the server for the Certkiller .com network users.

What should you do?

A. You should increase the size of the swap file.

B. You should add additional RAM.

C. You should add an additional hard disk.

D. You should add another CPU to the server.

Answer: D

Explanation: You should consider adding an additional CPU to the server in question because a typical performance for a server handling non-idle threads should have a counter value of 80-85% and in the scenario the counter value is constantly above 95.

Incorrect Answers:

A: This option should not be used in the scenario as there is no indication that the Windows swap file is configured to small.

B: This option should not be used in the scenario as the problem is not with the RAM, the Processor: % Processor Time counter value should be operating between 80-85% for non-idle threads and in the scenario the value is above 95.

C: This option should not be considered in the scenario as there is no indication that an additional disk drive is required. This option should only be used if the counter value is greater than 2.

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**QUESTION 140:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Advanced Server and all client computers run Windows 2000 Professional, Windows NT Workstation, Windows ME, Windows XP Professional or Windows 9x.

You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used to store business information. The SQL Server 2000 computer has eight CPUs and 2 GB of RAM. The SQL server also has two NICs which are used to connect to different subnets. The network users of Certkiller .com have recently complained about the server performing slow in the morning. During the course of the day you use System Monitor to monitor server activity in the morning using the counters below and discover the following values:

1. Processor: % Processor Time has a value of 80
2. Processor: % Privileged Time has a value of 25
3. Processor: % User Time has a value of 85
4. Memory: Available Mbytes has a value of 950

You are required to improve the performance of the server for the Certkiller .com network users.

What should you do?

- A. You should assign more memory to the SQL Server.
- B. You should add additional RAM to the server.
- C. You should configure the SQL Server to run on CPUs 4, 5, 6 and 7 only.
- D. You should set the affinity mask to 63.

Answer: D



Explanation: In the scenario the SQL Server also has to authenticate domain logons, by configuring the affinity mask of 63 you enable SQL Server to use the first 6 CPUs allowing the remaining processors to be dedicated to the NICs.

Incorrect Answers:

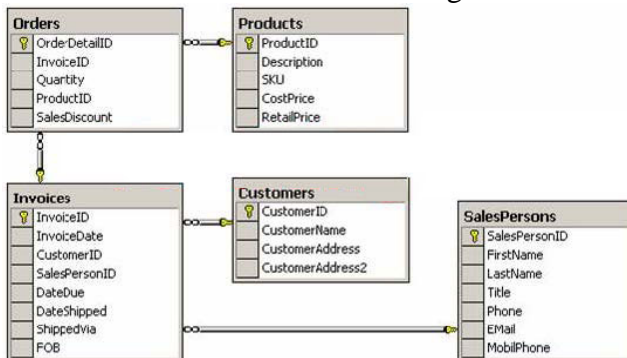
A: In the scenario you should not make use of this option because the SQL Server is capable of dynamically adjusting its memory usage based on the physical memory available.

B: This option should not be considered in the scenario because the System Monitor indicates that memory available is sufficient.

C: This option should not be used in the scenario because the operating system automatically assigns deferred process calls associated with the NICs to the processors with the highest numbers processor 6 and 7.

### QUESTION 141:

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.



The recent increase in database usage at the company has resulted in several Certkiller .com users complaining of timeouts when they try to retrieve sales orders from the CK\_Sales database. You need to determine whether partitioning the Orders table would improve database performance.

What should you do? (Each correct answer presents part of the solution. Choose TWO.)

- A. Run Index Tuning Wizard.
- B. Create a performance log file to monitor SQL Server:Buffer Manager:Page reads/sec.
- C. Run SQL Server Profiler to replay the trace file and the log file.
- D. Use the SQL Server Profiler Tuning template to create a trace file.
- E. Create a performance log file to monitor Logical Disk: Disk Read Bytes/sec

Answer: A, D

**Explanation:**

You can use the Index Tuning Wizard to determine whether indexing and partitioning of a table would improve database performance. The Index Tuning Wizard a file that you can create by running SQL Profiler.

**Incorrect Answers:**

B: The SQL Server:Buffer Manager:Page reads/sec counter is used to monitor the read activity on an instance of SQL Server. It does not help you determine whether partitioning a table will improve database performance.

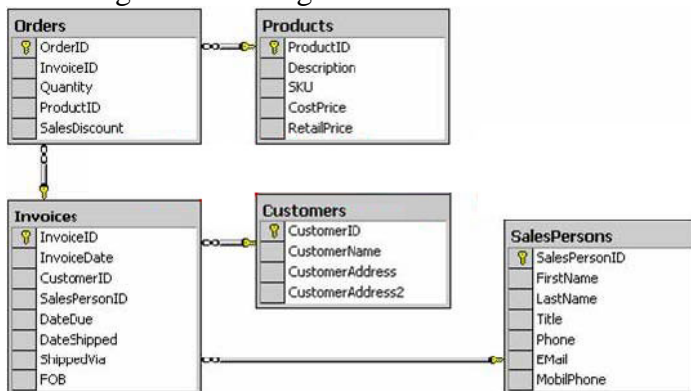
C: You can use the SQL Profiler to analyze a trace file and a log file to determine which queries are causing excessive resource utilization. However, this information does not help you determine whether partitioning a table will improve database performance.

E: The Logical Disk: Disk Read Bytes/sec counter is used to monitor the read activity on a logical disk. It does not help you determine whether partitioning a table will improve database performance.

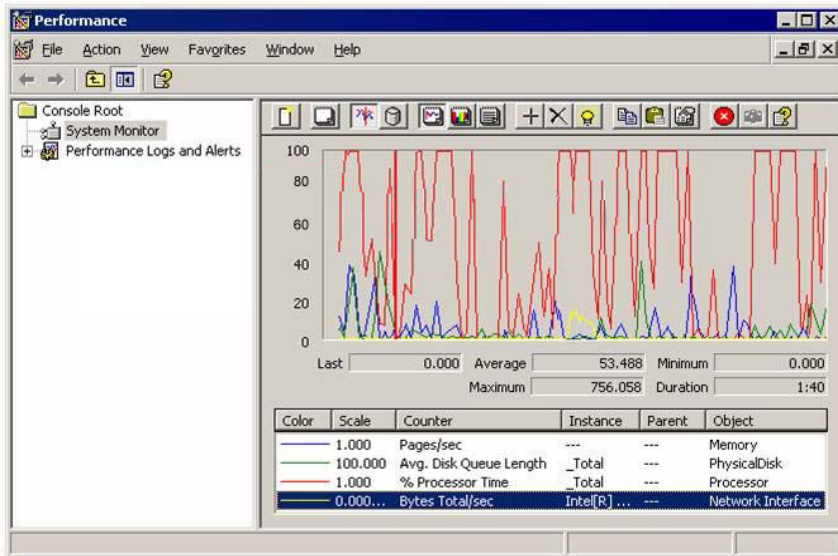
**QUESTION 142:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network contains a SQL Server 2000 database server named Certkiller -DB01. Certkiller -DB01 hosts a database named CK\_Sales that stores sales data for the company. The tables in the CK\_Sales database are shown in the following database diagram.



Several Certkiller .com users start complaining of slow response time when they run queries against the CK\_Sales database. You run the sys.dm\_os\_schedulers view on Certkiller -DB01 and discover that the runnable\_tasks\_count is consistently at or above ten. You run System Monitor on Certkiller -DB01 and receive the output as shown in the exhibit.



You need to improve database performance.  
 What should you do?

- A. Increase the Random Access Memory (RAM).
- B. Add an additional processor.
- C. Upgrade the disk subsystem.
- D. Use the Index Tuning Wizard to suggest new indexes.

Answer: B

Explanation: The Processor:% Processor Time counter in the exhibit indicates that the processor is often running at over 80%. This indicates that the processor is causing a bottleneck. Adding an additional processor to the system will improve overall system performance.

Incorrect Answers:

A: The Memory:Avg. Disk Queue Length counter in the exhibit is low. This indicates that the RAM is not causing a bottleneck. Therefore, adding additional RAM to the system will not improve overall system performance.

C: The PhysicalDisk:Pages/sec counter in the exhibit is low. This indicates that the disk subsystem is not causing a bottleneck. Therefore, upgrading the disk subsystem will not improve overall system performance.

D: The Processor:% Processor Time counter in the exhibit indicates that the processor is often running at over 80%. This indicates that the processor is causing a bottleneck.

Indexing the tables will not reduce the load on the processor and will not improve overall system performance.

## QUESTION 143:

### DRAG DROP

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All

servers on the Certkiller .com network run Windows Server2003. The Certkiller .com network contains a SQL Server 2005 on a server named Certkiller -DB01.

Certkiller -DB01 has five 120 GB hard disk drives. Two of the hard disks are configured as a mirrored volume that contains the operating system. The other three hard disks are configured as a RAID-5 volume. All database files are located on the RAID-5 volume while the transaction log files are located on the mirrored volume.

Certkiller -DB01 is running a default SQL Server instance and a named instance named CK\_DB. The default instance hosts an Online Transaction Processing (OLTP) database named CK\_Sales while the named instance hosts historical data used for reporting.

Certkiller .com users complain that database performance is deteriorating. You suspect that a disk problem might be causing the bottleneck. You want to determine which SQL Server instance is using the most disk time.

What should you do? (To answer, select the appropriate performance counters that you should monitor in the left pane and drag them to the right pane.)

Performance Counters, select from these	Performance Counters, place here
Physical Disk:Disk Read Bytes/sec	Place here.
SQL Server:Buffer Manager:Page writes/sec	Place here, if any.
Logical Disk:Disk Read Bytes/sec	Place here, if any.
Physical Disk:Disk Write Bytes/sec	Place here, if any.
Logical Disk:Disk Write Bytes/sec	Place here, if any.
SQL Server:Buffer Manager:Page reads/sec	Place here, if any.

Answer:

Performance Counters, select from these	Performance Counters, place here
Physical Disk:Disk Read Bytes/sec	SQL Server:Buffer Manager:Page writes/sec
	SQL Server:Buffer Manager:Page reads/sec
Logical Disk:Disk Read Bytes/sec	Place here, if any.
Physical Disk:Disk Write Bytes/sec	Place here, if any.
Logical Disk:Disk Write Bytes/sec	Place here, if any.
	Place here, if any.

Explanation:

The SQL Server:Buffer Manager object is used to monitor resource usage for each SQL Server instance. You need to monitor the SQL Server:Buffer Manager:Page reads/sec counter to determine the number of page reads performed by each instance and the SQL Server:Buffer Manager:Page writes/sec counter to determine the number of page writes performed by each instance.

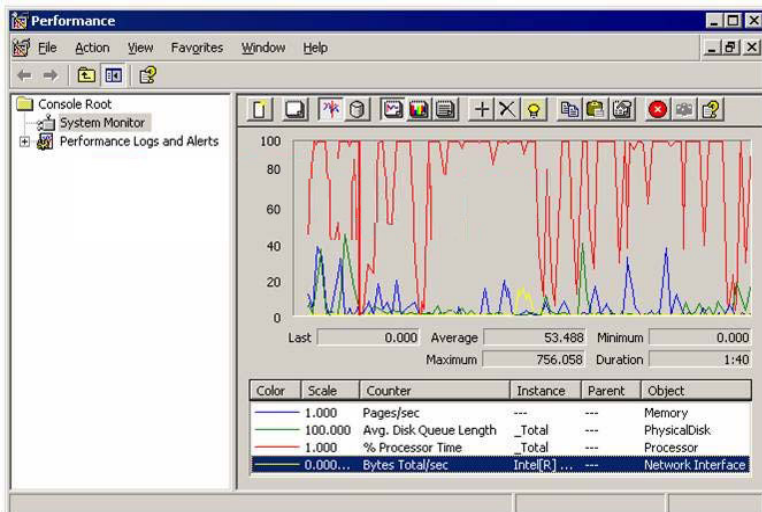
Incorrect Answers:

The Logical Disk:Disk Write Bytes/sec and Logical Disk:Disk Read Bytes/sec counters can be used to monitor the total number of disk reads or writes per second for a volume. Neither can be used to determine instance is using the most disk time.

The PhysicalDisk counters can be used to monitor a RAID volume but this cannot used to determine instance is using the most disk time.

#### QUESTION 144:

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows Server 2003 and all client computers run Windows XP Professional. The Certkiller .com network contains a SQL Server 2005 database server named Certkiller -DB01 that hosts a database named CK\_Sales. The CK\_Sales database stores sales data for the company. Certkiller .com users complain that the performance of the CK\_Sales database has deteriorated over the last few weeks. You use System Monitor to monitor the performance of Certkiller -DB01 and receive the output as shown in the exhibit.



You also notice that the ratio of SQL Recompilations/sec to Batch Requests/sec is unusually high. You suspect that the number of recompiles is causing the high processor time value. You need to improve the performance of the CK\_Sales database.

What should you do?

- A. Turn off automatic updates of statistics for all tables in the CK\_Sales database.
- B. Install an additional processor on Certkiller -DB01.
- C. Run the Database Engine Tuning Advisor.
- D. Use SQL Server Profiler to identify the stored procedures being recompiled.

Answer: D

Explanation: You can use SQL Server Profiler to identify the stored procedures

that are being recompiled. SQL Profiler will indicate which stored procedures are being recompiled and why each recompilation is occurring.

Incorrect Answers:

A: Turning off automatic updates of statistics for the tables may improve performance but it does not address the problem caused by the recompiles.

B: The high processor usage could be caused by the high number of recompiles. You should first reduce the number of recompiles before installing extra hardware on the server.

C: You can use the Database Engine Tuning Advisor to determine whether indexing and partitioning of a table would improve database performance but you cannot use it to identify which stored procedures are being recompiled.

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**QUESTION 145:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

Certkiller .com management has recently decided to install SQL Server 2000 on a newly acquired Windows NT Server 4.0 computer. As a result of the new acquiring you decide to create a trace in SQL Profiler to capture several events which include user events, server events and security events. You additionally specified that the results of the trace be saved in a file and you start the trace.

During the course of the business week the SQL server stops. You are required to have the SQL Server resume normal operations whilst continuing to audit.

What should you do?

- A. SQL Server should be restarted in a single-user mode.
- B. The MSSQLServer and the SQLServerAgent services should be restarted.
- C. A new disk should be added to the SQL Server computer.
- D. The audit logs should be archived and remove them from the disk and restart MSSQLServer.

Answer: D

Explanation: In the scenario you should remember that the log file used for auditing would most likely continue to accept new event records as soon as free space becomes available on the disk drive and then the MSSQLServer service is restarted.

Incorrect Answers:

A: This option could be used for troubleshooting in the scenario but then no other users would be allowed to connect to the instance of SQL Server.

B: You should not consider using this option in the scenario because you are not required to restart the SQLServerAgent service in the scenario.

C: This option could be used in the scenario but you would still be required to restart the MSSQLServer service in the scenario.



**QUESTION 146:**

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional.

You have received instruction from the management of Certkiller .com and successfully created an application which network users will use to manipulate data on two instances of SQL Server which reside on a Windows 2000 Server computer. Certkiller .com network users use the application to access databases on both instances of SQL Server. You are required to use SQL Profiler to monitor both instances of SQL Server 2000. You are required to perform this task using the least amount of administrative effort.

What should you do?

- A. One trace should be created for each instance of SQL Server. You should then configure each trace to monitor both applications and run the traces in separate instances of SQL Profiler.
- B. One trace should be created for each instance of SQL Server. You should then configure each trace to monitor the first applications and run both traces in a single instance of SQL Profiler.
- C. One trace should be created to monitor both instances of SQL Server. You should then configure each trace to monitor both applications and run the traces in a single instance of SQL Profiler.
- D. One trace should be created for each instance of SQL Server. You should then configure each trace to monitor both applications and run the traces in a single instance of SQL Profiler.

Answer: D

Explanation: In the scenario you would do well to remember that SQL Profiler is an administrative tool that can be used to present information about the SQL Server events.

Incorrect Answers:

A: In the scenario you should not use this option because a single trace can connect to only one instance of SQL Server but you can run both traces together in the same instance of SQL Profiler.

B, C: In the scenario you should not consider using these options because each instance of SQL Server still requires running a separate trace.

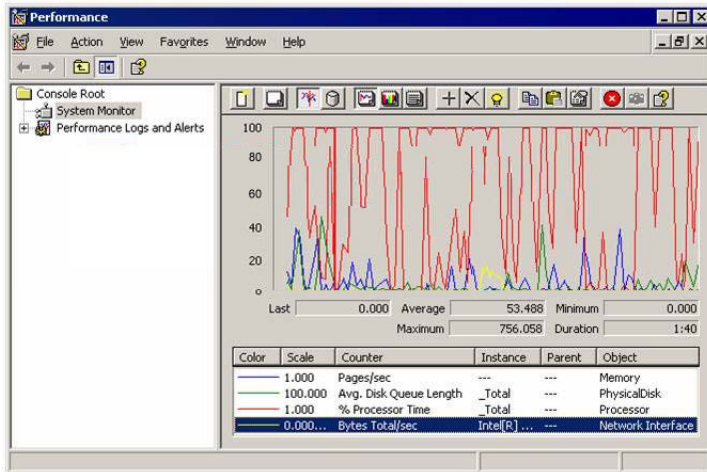
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**QUESTION 147:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional. The Certkiller .com network contains a



SQL Server 2000 database server named Certkiller -DB01 that hosts a database named CK\_Sales. The CK\_Sales database stores sales data for the company. Certkiller .com users complain that the performance of the CK\_Sales database has deteriorated over the last few weeks. You use System Monitor to monitor the performance of Certkiller -DB01 and receive the output as shown in the exhibit.



You also notice that the ratio of SQL Recompilations/sec to Batch Requests/sec is unusually high. You suspect that the number of recompiles is causing the high processor time value. You need to improve the performance of the CK\_Sales database.

What should you do?

- A. Turn off automatic updates of statistics for all tables in the CK\_Sales database.
- B. Install an additional processor on Certkiller -DB01.
- C. Run the Index Tuning Wizard.
- D. Use SQL Profiler to identify the stored procedures being recompiled.

Answer: D

Explanation: You can use SQL Profiler to identify the stored procedures that are being recompiled. SQL Profiler will indicate which stored procedures are being recompiled and why each recompilation is occurring.

Incorrect Answers:

A: Turning off automatic updates of statistics for the tables may improve performance but it does not address the problem caused by the recompiles.

B: The high processor usage could be caused by the high number of recompiles. You should first reduce the number of recompiles before installing extra hardware on the server.

C: You can use the Index Tuning Wizard to determine whether indexing and partitioning of a table would improve database performance but you cannot use it to identify which stored procedures are being recompiled.

## QUESTION 148:

You work as the network database administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows XP Professional. You are responsible for administering the SQL Server 2000 database of Certkiller .com which is used extensively to store business information.

Certkiller .com currently has 700 network users who connect to the database to perform various activities. Certain network employees of Certkiller .com makes use of an custom application that is used for retrieving data for analysis and performing INSERT and UPDATE operations. The network users of Certkiller .com ahs recently started reporting that the custom application responds slowly.

During your maintenance routine you decide to open System Monitor and analyze the counters below and discover the following values:

1. SQLServer: Access Methods Page Splits/sec has a value of 2
2. SQLServer: BufferManager Buffer cache hit ratio has a value of 95
3. SQLStatistics SQL Re-Compilations/sec has a value of 15
4. SQLServer: Locks Requests/sec has a value of 8,000

You are required to determine that exact cause of the applications poor performance.

What should you do?

- A. The WITH RECOMPILE option should be added to the definition of the stored procedure that the application uses.
- B. You should add additional RAM.
- C. On all the tables referenced by the application you should rebuild the clustered indexes and specify a low value for the fill factor.
- D. In Enterprise Manager you should open the Current Activity window to determine which process are holding locks for resources required by the application.

Answer: D

Explanation: You should remember in the scenario that the SQLServer: Locks Requests/sec has a value of 8,000 which signifies a high level of activity. In the scenario the applications performance is slow as it is forced to wait for resources to be released.

Incorrect Answers:

A: This option should not be used in the scenario because there is no indication that the stored procedures should be recompile each time when called. This only degrades the performance further.

B: In the scenario you should not consider adding additional RAM as the performance object SQLServer: Locks Requests/sec has a value of 8,000 indicating a high level of activity.

C: This option should not be used in the scenario because there is no indication of excessive page splits so there is no need to rebuild all the clustered indexes.

**QUESTION 149:**

You work as the database administrator at Certkiller .com. The Certkiller .com network consists of a single Windows 2000 domain named Certkiller .com. All servers on the Certkiller .com network run Windows 2000 Server and all client computers run Windows 2000 Professional.

The Certkiller .com network contains a Microsoft SQL Server 2000 database server which you administer. You discovered recently that the database server is experiencing performance problems. You suspect that the bottleneck is disk access you run the performance utility and the log indicates the values below:

1. PhysicalDisk: %Disk Time = 94%
2. PhysicalDisk: Avg. Disk Queue Length = 3

You are required to eliminate the lack of physical memory as the bottleneck. What should you do?

- A. Monitor the Memory: Pages/sec counter.
- B. Monitor the SQL Server: Buffer Manager: Page reads/sec counter.
- C. Monitor the Memory: Cache faults/sec counter.
- D. Monitor the SQL Server: Buffer Manager: Total Pages counter.

Answer: A

Explanation: In the scenario you should remember in order to monitor the lack of physical memory that you should use the Memory: Pages/sec counter as this will determine how many hard page faults occur.

Incorrect Answers:

B: This option should not be used in the scenario as it will only tell you the amount of the disk access performed by the instance of SQL server.

C: This option is used to report only the number of hard faults and soft faults in a combination and should not be used in the scenario.

D: This option should not be used in the scenario because it only displays the number of pages in the buffer pool.

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**QUESTION 150:**

You work as a data administrator at Certkiller .com. The Certkiller .com network consists of a single Active Directory domain named Certkiller .com. All servers on Certkiller .com run Microsoft Windows 2000 Server. The database server named Certkiller -DB01 is configured with Microsoft SQL Server 2000. Your job description includes the maintenance of Certkiller -DB01.

The Certkiller -DB01 specifications are as follows:

1. One processor
2. 1 gigabyte (GB) of memory
3. One physical hard drive

You are currently busy establishing the performance threshold for Certkiller -DB01. To this end you are monitoring Certkiller -DB01 for common

bottleneck conditions. You now need to identify the potential bottleneck conditions. You thus need to make a choice in the appropriate counters and the appropriate settings.

What should you do?

- A. The PhysicalDisk: %Disk Time counter should be monitored and set the threshold not to fall below 90 percent.
- B. The Processor: %Privileged Time counter should be monitored and set the threshold not to fall below 20 percent.
- C. The PhysicalDisk: Avg. Disk Queue Length counter should be monitored and set the threshold not to exceed 1.
- D. The Processor: %Processor Time counter should be monitored and set the threshold to not exceed 80 percent.

Answer: D

Explanation: In the scenario you should only consider using the option in the answer because the counter monitors the amount of time that the CPU spends executing non-idle threads.

Incorrect Answers:

- A: In the scenario you should always remember that when looking for bottlenecks that a lower value is better for usage.
- B: This option should not be used in the scenario because this should only be used if you identified that the CPU is the bottleneck.
- C: You should not make this configuration in the scenario because a bottleneck can be indicated by a value higher than 1.5 if you have only one hard disk.