70-764

Number: 70-764 Passing Score: 800 Time Limit: 120 min File Version: 1.0



70-764

Administering a SQL Database Infrastructure (beta)

Sections

1. Volume A

2. Volume B

# Exam A

# **QUESTION 1**

You administer a Microsoft SQL Server 2012 database.

Users report that an application that accesses the database displays an error, but the error does not provide meaningful information. No entries are found in the SQL Server log or Windows event logs related to the error.

You need to identify the root cause of the issue by retrieving the error message.

What should you do?

- A. Create an Extended Events session by using the sqlserver.error\_reported event.
- B. Create a SQL Profiler session to capture all ErrorLog and EventLog events.
- C. Flag all stored procedures for recompilation by using sp\_recompile.
- D. Execute sp\_who.

#### Correct Answer: A Section: Volume A Explanation

# Explanation/Reference:

Explanation/Reference:

http://msdn.microsoft.com/en-us/library/bb630282.aspx Event sqlserver.error\_reported: This event gets fired every time that an error happens in the server

# **QUESTION 2**

You administer a Microsoft SQL Server 2012 server. One of the databases on the server supports a highly active OLTP application.

Users report abnormally long wait times when they submit data into the application.

You need to identify which queries are taking longer than 1 second to run over an extended period of time.

What should you do?

- A. use SQL Profiler to trace all queries that are processing on the server. Filter queries that have a Duration value of more than 1,000.
- B. Use sp\_configure to set a value for blocked process threshold. Create an extended event session.
- C. Use the Job Activity monitor to review all processes that are actively running. Review the Job History to find out the duration of each step.
- D. Run the sp\_who command from a query window.
- E. Run the DBCC TRACEON 1222 command from a query window and review the SQL Server event log.

Correct Answer: E Section: Volume A Explanation

#### Explanation/Reference:

Explanation/Reference: http://www.mssqltips.com/sqlservertip/2130/finding-sql-server-deadlocks-using-trace-flag-1222/ http://msdn.microsoft.com/en-us/library/ms188396.aspx

# **QUESTION 3**

You administer a Microsoft SQL Server 2012 database.

You need to ensure that the size of the transaction log file does not exceed 2 GB.

What should you do?

- A. Execute sp\_configure 'max log size', 2G.
- B. use the ALTER DATABASE...SET LOGFILE command along with the maxsize parameter.
- C. In SQL Server Management Studio, right-click the instance and select Database Settings. Set the maximum size of the file for the transaction log.
- D. in SQL Server Management Studio, right-click the database, select Properties, and then click Files. Open the Transaction log Autogrowth window and set the maximum size of the file.

Correct Answer: D Section: Volume A Explanation

#### Explanation/Reference:

#### **QUESTION 4**

You administer a Microsoft SQL Server 2012 server. The MSSQLSERVER service uses a domain account named CONTOSO\SQLService.

You plan to configure Instant File Initialization.

You need to ensure that Data File Autogrow operations use Instant File Initialization.

What should you do? Choose all that apply.

- A. Restart the SQL Server Agent Service.
- B. Disable snapshot isolation.
- C. Restart the SQL Server Service.
- D. Add the CONTOSO\SQLService account to the Perform Volume Maintenance Tasks local security policy.

- E. Add the CONTOSO\SQLService account to the Server Operators fixed server role.
- F. Enable snapshot isolation.

#### Correct Answer: CD Section: Volume A Explanation

#### Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms175935.aspx http://www.mssqltips.com/sqlservertip/2752/effect-of-instant-file-initialization-within-sql-server/

How To Enable Instant File Initialization

- 1. Open Local Security Policy and go to Local Policies --> User Rights Assignment.
- 2. Double click Perform Volume Maintenance Tasks and add your SQL Server database engine service account.
- 3. Restart the SQL Server service using SQL Server Configuration Manager and this setting should now be enabled.

# **QUESTION 5**

You administer a Microsoft SQL Server 2012 failover cluster that contains two nodes named Node A and Node B. A single instance of SQL Server is installed on the cluster.

An additional node named Node C has been added to the existing cluster.

You need to ensure that the SQL Server instance can use all nodes of the cluster.

What should you do?

- A. Run the New SQL Server stand-alone installation Wizard on Node C.
- B. Run the Add Node to SQL Server Failover Cluster Wizard on Node C.
- C. Use Node B to install SQL Server on Node C.
- D. Use Node A to install SQL Server on Node C.

Correct Answer: B Section: Volume A Explanation

#### **Explanation/Reference:**

http://technet.microsoft.com/en-us/library/ms191545.aspx To add a node to an existing SQL Server failover cluster, you must run SQL Server Setup on the node that is to be added to the SQL Server failover cluster instance. Do not run Setup on the active node.

The Installation Wizard will launch the SQL Server Installation Center. To add a node to an existing failover cluster instance, click Installation in the lefthand pane. Then, select Add node to a SQL Server failover cluster.

# **QUESTION 6**

You administer a Microsoft SQL Server 2012 database.

The database contains a Product table created by using the following definition:

```
CREATE TABLE dbo.Product
(ProductID INT PRIMARY KEY,
Name VARCHAR(50) NOT NULL,
Color VARCHAR(15) NOT NULL,
Size VARCHAR(5) NOT NULL,
Style CHAR(2) NULL,
Weight DECIMAL(8,2) NULL);
```

You need to ensure that the minimum amount of disk space is used to store the data in the Product table.

What should you do?

- A. Convert all indexes to Column Store indexes.
- B. Implement Unicode Compression.
- C. Implement row-level compression.
- D. Implement page-level compression.

Correct Answer: D Section: Volume A Explanation

# **Explanation/Reference:**

http://msdn.microsoft.com/en-us/library/cc280449.aspx http://msdn.microsoft.com/en-us/library/cc280464.aspx http://msdn.microsoft.com/en-us/library/cc280576.aspx http://msdn.microsoft.com/en-us/library/ee240835.aspx

# **QUESTION 7**

You administer a Microsoft SQL Server 2012 instance. After a routine shutdown, the drive that contains tempdb fails.

You need to be able to start the SQL Server. What should you do?

- A. Modify tempdb location in startup parameters.
- B. Start SQL Server in minimal configuration mode.
- C. Start SQL Server in single-user mode.

# D. Configure SQL Server to bypass Windows application logging.

Correct Answer: B Section: Volume A Explanation

#### **Explanation/Reference:**

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms186400.aspx http://msdn.microsoft.com/en-us/library/ms345408.aspx

# **QUESTION 8**

You administer a single server that contains a Microsoft SQL Server 2012 default instance. You plan to install a new application that requires the deployment of a database on the server. The application login requires sysadmin permissions.

You need to ensure that the application login is unable to access other production databases.

What should you do?

- A. Use the SQL Server default instance and configure an affinity mask.
- B. Install a new named SQL Server instance on the server.
- C. Use the SQL Server default instance and enable Contained Databases.
- D. Install a new default SQL Server instance on the server.

Correct Answer: B Section: Volume A Explanation

**Explanation/Reference:** 

#### **QUESTION 9**

You administer a Microsoft SQL Server 2012 Enterprise Edition server that uses 64 cores.

You discover performance issues when large amounts of data are written to tables under heavy system load.

You need to limit the number of cores that handle I/O.

What should you configure?

- A. Processor affinity
- B. Lightweight pooling

C. Max worker threads

D. I/O affinity

Correct Answer: D Section: Volume A Explanation

Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms189629.aspx

# **QUESTION 10**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics: A data file of 2 terabytes is located on a dedicated LUN (drive D). A transaction log of 10 GB is located on a dedicated LUN (drive E). Drive D has 1 terabyte of free disk space. Drive E has 5 GB of free disk space.

The database is continually modified by users during business hours from Monday through Friday between 09:00 hours and 17:00 hours. Five percent of the existing data is modified each day.

The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database.

These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

You need to ensure that your backup will continue if any invalid checksum is encountered.

Which backup option should you use?

- A. STANDBY
- B. Differential
- C. FULL
- D. CHECKSUM
- E. BULK\_LOGGED
- F. CONTINUE\_AFTER\_ERROR

- G. SIMPLE
- H. DBO\_ONLY
- I. COPY\_ONLY
- J. SKIP
- K. RESTART
- L. Transaction log
- M. NO\_CHECKSUM
- N. NORECOVERY

Correct Answer: F Section: Volume A Explanation

# Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms186865.aspx http://msdn.microsoft.com/enus/library/microsoft.sqlserver.management.smo.backuprestorebase.continueaftererror.aspx

# **QUESTION 11**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics: A data file of 2 terabytes is located on a dedicated LUN (drive D). A transaction log of 10 GB is located on a dedicated LUN (drive E). Drive D has 1 terabyte of free disk space. Drive E has 5 GB of free disk space.

The database is continually modified by users during business hours from Monday through Friday between 09:00 hours and 17:00 hours. Five percent of the existing data is modified each day.

The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database. These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

On Wednesday at 10:00 hours, the development team requests you to refresh the database on a development server by using the most recent version.

You need to perform a full database backup that will be restored on the development server.

Which backup option should you use?

- A. NORECOVERY
- B. FULL
- C. NO\_CHECKSUM
- D. CHECKSUM
- E. Differential
- F. 8ULK\_LOGGED
- G. STANDBY
- H. RESTART
- I. SKIP
- J. Transaction log
- K. DBO ONLY
- L. COPY\_ONLY
- M. SIMPLE
- N. CONTINUE AFTER ERROR

Correct Answer: L Section: Volume A Explanation

Explanation/Reference:

# **QUESTION 12**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics: A data file of 2 terabytes is located on a dedicated LUN (drive D). A transaction log of 10 GB is located on a dedicated LUN (drive E). Drive D has 1 terabyte of free disk space. Drive E has 5 GB of free disk space. The database is continually modified by users during business hours from Monday through Eriday between 09:00 hours and 17:00 hours. Fix

The database is continually modified by users during business hours from Monday through Friday between 09:00 hours and 17:00 hours. Five percent of the existing data is modified each day.

The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database.

These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

You need to ensure that the minimum amount of data is lost.

Which recovery model should the database use?

- A. FULL
- B. DBO\_ONLY
- C. CONTINUE\_AFTER\_ERROR
- D. CHECKSUM
- E. NO\_CHECKSUM
- F. SIMPLE
- G. Transaction log
- H. SKIP
- I. RESTART
- J. COPY\_ONLY
- K. NORECOVERY
- L. BULK\_LOGGED
- M. Differential
- N. STANDBY

Correct Answer: A Section: Volume A Explanation

#### Explanation/Reference:

# **QUESTION 13**

You administer a Microsoft SQL Server 2012 instance that contains a financial database hosted on a storage area network (SAN).

The financial database has the following characteristics: A data file of 2 terabytes is located on a dedicated LUN (drive D). A transaction log of 10 GB is located on a dedicated LUN (drive E). Drive D has 1 terabyte of free disk space. Drive E has 5 GB of free disk space.

The database is continually modified by users during business hours from Monday through Friday between 09:00 hours and 17:00 hours. Five percent of the existing data is modified each day.

The Finance department loads large CSV files into a number of tables each business day at 11:15 hours and 15:15 hours by using the BCP or BULK INSERT commands. Each data load adds 3 GB of data to the database.

These data load operations must occur in the minimum amount of time.

A full database backup is performed every Sunday at 10:00 hours. Backup operations will be performed every two hours (11:00, 13:00, 15:00, and 17:00) during business hours.

You need to ensure that the backup size is as small as possible.

Which backup should you perform every two hours?

- A. BULK\_LOGGED
- B. NO\_CHECKSUM
- C. FULL
- D. RESTART
- E. CHECKSUM
- F. STANDBY
- G. DBO.ONLY
- H. NORECOVERY
- I. SIMPLE
- J. SKIP
- K. Transaction log
- L. COPY\_ONLY
- M. Differential
- N. CONTINUE\_AFTER\_ERROR

Correct Answer: K Section: Volume A Explanation

# **Explanation/Reference:**

Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms186865.aspx http://msdn.microsoft.com/en-us/library/ms191429.aspx http://msdn.microsoft.com/en-us/library/ms179478.aspx

Topic 2, Volume B

# **QUESTION 14**

You administer a Microsoft SQL Server 2012 instance named SQL2012 that hosts an OLTP database of 1 terabyte in size.

The database is modified by users only from Monday through Friday from 09:00 hours to 17:00 hours. Users modify more than 30 percent of the data in the database during the week.

Backups are performed as shown in the following schedule:

Туре	Frequency
Full	Sunday at 20:00 hours
Differential	Monday through Friday at 20:00 hours
Log	Monday through Friday between 08:00 hours and 18:00 hours

The Finance department plans to execute a batch process every Saturday at 09:00 hours. This batch process will take a maximum of 8 hours to complete.

The batch process will update three tables that are 10 GB in size. The batch process will update these tables multiple times.

When the batch process completes, the Finance department runs a report to find out whether the batch process has completed correctly.

You need to ensure that if the Finance department disapproves the batch process, the batch operation can be rolled back in the minimum amount of time.

What should you do on Saturday?

- A. Perform a differential backup at 08:59 hours.
- B. Record the LSN of the transaction log at 08:59 hours. Perform a transaction log backup at 17:01 hours.
- C. Create a database snapshot at 08:59 hours.
- D. Record the LSN of the transaction log at 08:59 hours. Perform a transaction log backup at 08:59 hours.
- E. Create a marked transaction in the transaction log at 08:59 hours. Perform a transaction log backup at 17:01 hours.
- F. Create a marked transaction in the transaction log at 08:59 hours. Perform a transaction log backup at 08:59 hours.

Correct Answer: C Section: Volume B Explanation

**Explanation/Reference:** 

**QUESTION 15** 

You administer a Microsoft SQL Server 2012 instance.

The instance contains a database that supports a retail sales application. The application generates hundreds of transactions per second and is online 24 hours per day and 7 days per week.

You plan to define a backup strategy for the database. You need to ensure that the following requirements are met: No more than 5 minutes worth of transactions are lost. Data can be recovered by using the minimum amount of administrative effort.

What should you do? Choose all that apply.

- A. Configure the database to use the SIMPLE recovery model.
- B. Create a DIFFERENTIAL database backup every 4 hours.
- C. Create a LOG backup every 5 minutes.
- D. Configure the database to use the FULL recovery model.
- E. Create a FULL database backup every 24 hours.
- F. Create a DIFFERENTIAL database backup every 24 hours.

Correct Answer: BCDE Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 16**

You administer a Microsoft SQL Server 2012 database that contains a table named OrderDetail.

You discover that the NCI\_OrderDetail\_CustomerID non-clustered index is fragmented. You need to reduce fragmentation. You need to achieve this goal without taking the index offline.

Which Transact-SQL batch should you use?

- A. CREATE INDEX NCI\_OrderDetail\_CustomerID ON OrderDetail.CustomerID WITH DROP EXISTING
- B. ALTER INDEX NCI\_OrderDetail\_CustomerID ON OrderDetail.CustomerID REORGANIZE
- C. ALTER INDEX ALL ON OrderDetail REBUILD
- D. ALTER INDEX NCI\_OrderDetail\_CustomerID ON OrderDetail.CustomerID REBUILD

Correct Answer: B Section: Volume B Explanation

# Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms188388.aspx

# **QUESTION 17**

You administer a Microsoft SQL Server database named Sales. The database is 3 terabytes in size.

The Sales database is configured as shown in the following table.

Filegroup	File
PRIMARY	Sales.mdf
XACTIONS	<ul> <li>Sales_1.ndf</li> <li>Sales_2.ndf</li> <li>Sales_3.ndf</li> </ul>
ARCHIVES	<ul> <li>SalesArch_1.ndf</li> <li>SalesArch_2.ndf</li> </ul>

You discover that all files except Sales\_2.ndf are corrupt.

You need to recover the corrupted data in the minimum amount of time.

What should you do?

- A. Perform a file restore.
- B. Perform a transaction log restore.
- C. Perform a restore from a full backup.
- D. Perform a filegroup restore.

Correct Answer: A Section: Volume B Explanation

# Explanation/Reference:

Explanation/Reference: Reference: http://technet.microsoft.com/en-us/library/ms187048.aspx Reference: http://msdn.microsoft.com/en-us/library/aa337540.aspx Under the simple recovery model, the file must belong to a read-only filegroup. Under the full or bulk-logged recovery model, before you can restore files, you must back up the active transaction log (known as the tail of the log). For more information, see Back Up a Transaction Log (SQL Server).

To restore a database that is encrypted, you must have access to the certificate or asymmetric key that was used to encrypt the database. Without the certificate or asymmetric key, the database cannot be restored. As a result, the certificate that is used to encrypt the database encryption key must be retained as long as the backup is needed. For more information, see SQL Server Certificates and Asymmetric Keys.

# **QUESTION 18**

You administer a Microsoft SQL Server 2012 server. You plan to deploy new features to an application.

You need to evaluate existing and potential clustered and non-clustered indexes that will improve performance.

What should you do?

- A. Query the sys.dm\_db\_index\_usage\_stats DMV.
- B. Query the sys.dm\_db\_missing\_index\_details DMV.
- C. Use the Database Engine Tuning Advisor.
- D. Query the sys.dm\_db\_missing\_index\_columns DMV.

Correct Answer: C Section: Volume B Explanation

#### Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms174202.aspx

# **QUESTION 19**

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to write messages to the Application Log when users are added to or removed from a fixed server role in Server01.

What should you create?

- A. A Database Audit Specification
- B. A Policy
- C. An Alert
- D. A SQL Profiler Trace
- E. A Resource Pool
- F. An Extended Event session

# G. A Server Audit Specification

#### Correct Answer: G Section: Volume B Explanation

# **Explanation/Reference:**

http://technet.microsoft.com/en-us/library/cc280663(v=sql.105).aspx

# **QUESTION 20**

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to be notified immediately when fatal errors occur on Server01.

What should you create?

#### A. An Alert

- B. A Server Audit Specification
- C. An Extended Event session
- D. A Resource Pool
- E. A Policy
- F. A SQL Profiler Trace
- G. A Database Audit Specification

# Correct Answer: A

Section: Volume B Explanation

# **Explanation/Reference:**

http://www.sqlskills.com/blogs/glenn/creating-sql-server-agent-alerts-for-critical-errors/

# **QUESTION 21**

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to diagnose deadlocks that happen when executing a specific set of stored procedures by recording events and playing them back on a different test server.

What should you create?

- A. An Extended Event session
- B. A Policy

- C. A Database Audit Specification
- D. An Alert
- E. A Server Audit Specification
- F. A SQL Profiler Trace
- G. A Resource Pool

#### Correct Answer: F Section: Volume B Explanation

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms188246.aspx

# **QUESTION 22**

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to prevent users from disabling server audits in Server01.

What should you create?

- A. An Alert
- B. A Resource Pool
- C. An Extended Event session
- D. A Policy
- E. A Database Audit Specification
- F. A SQL Profiler Trace
- G. A Server Audit Specification

Correct Answer: D Section: Volume B Explanation

**Explanation/Reference:** 

**QUESTION 23** You administer a Microsoft SQL Server 2012.

A process that normally runs in less than 10 seconds has been running for more than an hour.

You examine the application log and discover that the process is using session ID 60.

You need to find out whether the process is being blocked.

Which Transact-SQL statement should you use?

- A. EXEC sp\_who 60
- B. SELECT \* FROM sys.dm\_exec\_sessions WHERE sessionid = 60
- C. EXEC sp\_helpdb 60

D. DBCC INPUTBUFFER (60)

Correct Answer: A Section: Volume B Explanation

#### Explanation/Reference:

Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms174313.aspx http://msdn.microsoft.com/en-us/library/ms176013.aspx http://msdn.microsoft.com/en-us/library/ms178568.aspx http://msdn.microsoft.com/en-us/library/ms178568.aspx http://msdn.microsoft.com/en-us/library/ms187730.aspx

#### **QUESTION 24**

You administer all the deployments of Microsoft SQL Server 2012 in your company. You have two servers in the same data center that hosts your production database.

You need to ensure that the database remains available if a catastrophic server failure or a disk failure occurs.

You also need to maintain transactional consistency of the data across both servers.

You need to achieve these goals without manual intervention.

Which configuration should you use?

- A. Two servers configured in a Windows Failover Cluster in the same data center SQL Server configured as a clustered instance
- B. SQL Server that includes an application database configured to perform transactional replication
- C. Two servers configured in the same data center A primary server configured to perform log-shipping every 10 minutes A backup server configured as a warm standby
- D. Two servers configured in different data centers SQL Server Availability Group configured in Synchronous-Commit Availability Mode One server configured as an Active Secondary
- E. Two servers configured in the same data center SQL Server Availability Group configured in Asynchronous-Commit Availability Mode One server configured as an Active Secondary
- F. Two servers configured in different data centers

- SQL Server Availability Group configured in Asynchronous-Commit Availability Mode
- G. SQL Server that includes an application database configured to perform snapshot replication
- H. Two servers configured on the same subnet SQL Server Availability Group configured in Synchronous-Commit Availability Mode

Correct Answer: H Section: Volume B Explanation

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ff877931.aspx

# **QUESTION 25**

You create an availability group that has replicas named HA/Server01 and HA/Server02. Currently, HA/Server01 is the primary replica.

You have multiple queries that read data and produce reports from the database.

You need to offload the reporting workload to the secondary replica when HA/Server01 is the primary replica.

What should you do?

- A. Set the Availability Mode property of HA/Server02 to Asynchronous commit.
- B. Set the Readable Secondary property of HA/Server02 to Read-intent only.
- C. Set the Connections in Primary Role property of HA/Server01 to Allow read/write connections.
- D. Set the Availability Mode property of HA/Server01 to Asynchronous commit.

Correct Answer: B Section: Volume B Explanation

Explanation/Reference:

Explanation/Reference: http://msdn.microsoft.com/en-us/library/jj542414.aspx

# **QUESTION 26**

You administer two Microsoft SQL Server 2012 servers. Each server resides in a different, untrusted domain.

You plan to configure database mirroring.

You need to be able to create database mirroring endpoints on both servers.

What should you do?

- A. Configure the SQL Server service account to use Network Service.
- B. Use a server certificate.
- C. Use a database certificate.
- D. Configure the SQL Server service account to use Local System.

#### Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 27**

You administer a Microsoft SQL Server 2012 instance that has several SQL Server Agent jobs configured.

When SQL Server Agent jobs fail, the error messages returned by the job steps do not provide the required detail.

The following error message is an example error message:

"The job failed. The Job was invoked by User CONTOSO\ServiceAccount. The last step to run was step 1 (Subplan\_1)."

You need to ensure that all available details of the job step failures for SQL Server Agent jobs are retained.

What should you do?

- A. Configure output files.
- B. Expand agent logging to include information from all events.
- C. Disable the Limit size of job history log feature.
- D. Configure event forwarding.

Correct Answer: B Section: Volume B Explanation

Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms175488.aspx

# **QUESTION 28**

You administer a Microsoft SQL Server 2012 instance.

You need to configure a new database to support FILETABLES.

What should you do? Choose all that apply.

- A. Disable FILESTREAM on the Database.
- B. Enable FILESTREAM on the Server Instance.
- C. Configure the Database for Partial Containment.
- D. Create a non-empty FILESTREAM file group.
- E. Enable Contained Databases on the Server Instance.
- F. Set the FILESTREAM directory name on the Database.

Correct Answer: BDF Section: Volume B Explanation

Explanation/Reference: http://msdn.microsoft.com/en-us/library/gg509097.aspx

#### **QUESTION 29**

You administer two instances of Microsoft SQL Server 2012. You deploy an application that uses a database on the named instance.

The application is unable to connect to the database on the named instance.

You need to ensure that the application can connect to the named instance.

What should you do?

- A. Configure the application as data-tiered.
- B. Open port 1433 on the Windows firewall on the server.
- C. Configure the named SQL Server instance to use an account that is a member of the Domain Admins group.
- D. Start the SQL Server Browser Service.

Correct Answer: D Section: Volume B Explanation

**Explanation/Reference:** 

**QUESTION 30** 

You use a contained database named ContosoDb within a domain.

You need to create a user who can log on to the ContosoDb database. You also need to ensure that you can port the database to different database servers within the domain without additional user account configurations.

Which type of user should you create?

- A. SQL user without login
- B. User mapped to an asymmetric key
- C. Domain user
- D. login mapped to a virtual account

Correct Answer: C Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 31**

You administer a Microsoft SQL Server 2012 database.

You configure Transparent Data Encryption (TDE) on the Orders database by using the following statements:

CREATE MASTER KEY ENCRYPTION BY PASSWORD = 'MyPassword1!' CREATE CERTIFICATE TDE\_Certificate WITH SUBJECT = 'TDE Certificate'; BACKUP CERTIFICATE TDE\_Certificate TO FILE = "d:\TDE\_Certificate.cer' WITH PRIVATE KEY (FILE = 'D:\TDE\_Certificate.key', ENCRYPTION BY PASSWORD = 'MyPassword1!'); CREATE DATABASE ENCRYPTION KEY WITH ALGORITHM = AES\_256 ENCRYPTION BY SERVER CERTIFICATE TDE\_Certificate; ALTER DATABASE Orders SET ENCRYPTION ON;

You attempt to restore the Orders database and the restore fails. You copy the encryption file to the original location.

A hardware failure occurs and so a new server must be installed and configured.

After installing SQL Server to the new server, you restore the Orders database and copy the encryption files to their original location. However, you are unable to access the database. You need to be able to restore the database.

Which Transact-SQL statement should you use before attempting the restore?

- A. ALTER DATABASE Master SET ENCRYPTION OFF;
- B. CREATE CERTIFICATE TDE\_Certificate FROM FILE = 'd:\TDE\_Certificate.cer' WITH PRIVATE KEY (FILE = 'D:\TDE\_Certificate.key', DECRYPTION BY PASSWORD = 'MyPassword1!');
- C. CREATE CERTIFICATE TDE\_Certificate WITH SUBJECT = 'TDE Certificate'; USE Orders; CREATE DATABASE ENCRYPTION KEY WITH ALGORITHM = AES\_256 ENCRYPTION BY SERVER CERTIFICATE TDE\_Certificate;
- D. CREATE CERTIFICATE TDE\_Certificate FROM FILE = 'd:\TDE\_Certificate.cer';

Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 32**

You administer a SQL Server 2012 server that contains a database named SalesDB. SalesDb contains a schema named Customers that has a table named Regions. A user named UserA is a member of a role named Sales.

UserA is granted the Select permission on the Regions table. The Sales role is granted the Select permission on the Customers schema.

You need to ensure that the Sales role, including UserA, is disallowed to select from any of the tables in the Customers schema.

Which Transact-SQL statement should you use?

- A. REVOKE SELECT ON Schema::Customers FROM UserA
- B. DENY SELECT ON Object::Regions FROM UserA
- C. EXEC sp\_addrolemember 'Sales', 'UserA'
- D. DENY SELECT ON Object::Regions FROM Sales
- E. REVOKE SELECT ON Object::Regions FROM UserA
- F. DENY SELECT ON Schema::Customers FROM Sales
- G. DENY SELECT ON Schema::Customers FROM UserA
- H. EXEC sp\_droprolemember 'Sales', 'UserA'
- I. REVOKE SELECT ON Object::Regions FROM Sales
- J. REVOKE SELECT ON Schema::Customers FROM Sales

Correct Answer: F Section: Volume B Explanation

#### **Explanation/Reference:**

#### Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms188369.aspx http://msdn.microsoft.com/en-us/library/ms187750.aspx http://msdn.microsoft.com/en-us/library/ff848791.aspx http://msdn.microsoft.com/en-us/library/ms187728.aspx

#### **QUESTION 33**

You administer a SQL Server 2012 server that contains a database named SalesDB. SalesDb contains a schema named Customers that has a table named Regions. A user named UserA is a member of a role named Sales.

UserA is granted the Select permission on the Regions table. The Sales role is granted the Select permission on the Customers schema.

You need to ensure that UserA is disallowed to select from any of the tables in the Customers schema.

Which Transact-SQL statement should you use?

- A. DENY SELECT ON Object::Regions FROM UserA
- B. DENY SELECT ON Object::Regions FROM Sales
- C. REVOKE SELECT ON Schema::Customers FROM Sales
- D. REVOKE SELECT ON Schema::Customers FROM UserA
- E. REVOKE SELECT ON Object::Regions FROM Sales
- F. REVOKE SELECT ON Object::Regions FROM UserA
- G. DENY SELECT ON Schema::Customers FROM Sales
- H. DENY SELECT ON Schema::Customers FROM UserA
- I. EXEC sp\_addrolemember 'Sales', 'UserA'
- J. EXEC sp droprolemember 'Sales', 'UserA'

Correct Answer: H Section: Volume B Explanation

# Explanation/Reference:

Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms188369.aspx http://msdn.microsoft.com/en-us/library/ms187750.aspx http://msdn.microsoft.com/en-us/library/ff848791.aspx

# **QUESTION 34**

You administer a SQL 2012 server that contains a database named SalesDB. SalesDb contains a schema named Customers that has a table named Regions. A user named UserA is a member of a role named Sales.

UserA is granted the Select permission on the Regions table. The Sales role is granted the Select permission on the Customers schema.

You need to remove the Select permission for UserA on the Regions table. You also need to ensure that UserA can still access all the tables in the Customers schema, including the Regions table, through the Sales role permissions.

Which Transact-SQL statement should you use?

- A. DENY SELECT ON Object::Regions FROM UserA
- B. DENY SELECT ON Schema::Customers FROM UserA
- C. EXEC sp\_addrolemember 'Sales', 'UserA'
- D. REVOKE SELECT ON Object::Regions FROM UserA
- E. REVOKE SELECT ON Object::Regions FROM Sales
- F. EXEC sp\_droproiemember 'Sales', 'UserA'
- G. REVOKE SELECT ON Schema::Customers FROM UserA
- H. DENY SELECT ON Object::Regions FROM Sales
- I. DENY SELECT ON Schema::Customers FROM Sales
- J. REVOKE SELECT ON Schema::Customers FROM Sales

#### Correct Answer: D Section: Volume B Explanation

#### **Explanation/Reference:**

#### Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms188369.aspx http://msdn.microsoft.com/en-us/library/ms187750.aspx http://msdn.microsoft.com/en-us/library/ff848791.aspx

#### **QUESTION 35**

You administer a Microsoft SQL Server 2012 database that contains a table named AccountTransaction.

You discover that query performance on the table is poor due to fragmentation on the IDX\_AccountTransaction\_AccountCode non-clustered index. You need to defragment the index. You also need to ensure that user queries are able to use the index during the defragmenting process.

Which Transact-SQL batch should you use?

- A. ALTER INDEX IDX\_AccountTransaction\_AccountCode ON AccountTransaction.AccountCode REORGANIZE
- B. ALTER INDEX ALL ON AccountTransaction REBUILD
- C. ALTER INDEX IDX\_AccountTransaction\_AccountCode ON AccountTransaction.AccountCode REBUILD
- D. CREATE INDEX IDXAccountTransactionAccountCode ON

AccountTransaction.AccountCode WITH DROP EXISTING

Correct Answer: A Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 36**

You administer a Windows 2008 server hosting an instance of Microsoft SQL Server 2012 Standard Edition. The server hosts a database named Orders.

Users report that a query that filters on OrderDate is taking an exceptionally long time. You discover that an index named IX\_OrderDate on the CustomerOrder table is heavily fragmenteD.

You need to improve the performance of the IX\_OrderDate index. The index should remain online during the operation.

Which Transact-SQL command should you use?

- A. ALTER INDEX IX\_OrderDateON CustomerOrderDISABLE
- B. ALTER INDEX IX\_OrderDateON CustomerOrderENABLE
- C. ALTER INDEX IX\_OrderDateON CustomerOrderREORGANIZE
- D. ALTER INDEX IX OrderDateON CustomerOrderREBUILD

Correct Answer: C Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 37**

You administer a Windows Azure SQL Database database named Orders.

You need to create a copy of Orders named Orders\_Reporting. Which Transact-SQL command should you use?

- A. BACKUP DATABASE Orders TO DISK = 'D:\Orders.bak'RESTORE DATABASE Orders\_ReportingFROM DISK = 'D:\Orders.bak
- B. BACKUP DATABASE Orders TO DISK = 'D:\Orders.bak'CREATE DATABASE Orders\_ReportingFROM DISK = 'D:\Orders.bak
- C. CREATE DATABASE Orders\_Reporting AS COPY OF Orders

# D. BACKUP DATABASE Orders TO DISK = 'D:\Orders.bak'MIRROR TO DISK = 'Orders\_Reporting

Correct Answer: C Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 38**

You administer a Microsoft SQL Server 2012 failover cluster.

You need to ensure that a failover occurs when the server diagnostics returns query\_processing error.

Which server configuration property should you set?

- A. SqlOumperDumpFlags
- B. FailureConditionLevel
- C. HealthCheckTimeout
- D. SqlDumperDumpPath

Correct Answer: B Section: Volume B Explanation

# **Explanation/Reference:**

#### **QUESTION 39**

You are the administrator of a Microsoft SQL Server 2012 server.

Some applications consume significant resources. You need to manage the server workload by restricting resource-intensive applications

You need to dynamically limit resource consumption.

What should you do?

- A. Configure Resource Pools, Workload Groups, and Classifier Function, and then enable the Resource Governor
- B. Set up Service Broker to ensure that application are not allowed to consume more than the specified amount of resource
- C. Create a new rule for each application that sets the resource limit allowed
- D. Create a new plan Guide with a Scope Type of sql and define the resource limits for each application

Correct Answer: A Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 40**

You administer a Windows Azure SQL Database database named Inventory that contains a stored procedure named p\_AddInventory.

Users need to be able to SELECT from all tables in the database and execute the stored procedure.

You need to grant only the necessary permissions.

What should you do?

- A. Grant EXECUTE permission on p\_AddInventory to all users. Grant VIEW DEFINITION to all users.
- B. Grant EXECUTE permission on p\_AddInventory to all users. Add all users to the db\_datawriter role.
- C. Add all users to the db\_owner role.
- D. Grant EXECUTE permission on p\_AddInventory to all users. Add all users to the db\_datareader role.

Correct Answer: D Section: Volume B Explanation

Explanation/Reference:

**QUESTION 41** You administer a SQL Server 2012 database instance.

You need to configure the SQL Server Database Engine service on a failover cluster.

Which user account should you use?

- A. A domain user
- B. The BUILTIN\SYSTEM account
- C. A local user with Run as Service permissions
- D. TheSQLBrowser account

Correct Answer: A Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 42**

You administer a Windows Azure SQL Database database named Human\_Resources. The database contains 2 tables named Employees and SalaryDetails. You add two Windows groups as logins for the server: CORP\Employees - All company employees CORP\HRAdmins - HR administrators only HR Administrators are also company employees.

You need to grant users access according to the following requirements:

CORP\Employees should have SELECT access to the Employees table. Only users in CORP\HRAdmins should have SELECT access to the SalaryDetails table.

Logins are based only on Windows security groups.

What should you do?

- A. Create a database role called Employees.
   Add CORP\Employees to the db\_datareader role.
   Add all company employees except HR administrators to the Employees role.
   Deny SELECT access to the SalaryDetails table to the Employees role.
- B. Create a database role called HRAdmins. Add all company employees except HR administrators to the db\_datareader role, Add all HR administrators to the HRAdmins role. Grant SELECT access to the SalaryDetails table to the HRAdmins role. Deny SELECT access to the SalaryDetails table to the db\_datareader role.
- C. Create two database roles: Employees and HRAdmins.
   Add all company employees to the Employees role.
   Add HR administrators to the HRAdmins role.
   Grant SELECT access to all tables except SalaryDetails to the Employees role.
   Grant SELECT access to the SalaryDetails table to the HRAdmins role.
   Deny SELECT access to the SalaryDetails table to the Employees role.

# D. Create a database role called Employees. Add all HR administrators to the db\_datareader role. Add all company employees to the Employees role. Grant SELECT access to all tables except the SalaryDetails table to the Employees role. Deny SELECT access to the SalaryDetails table to the Employees role.

Correct Answer: D Section: Volume B

# Explanation

#### Explanation/Reference:

# **QUESTION 43**

You administer a Microsoft SQL Server 2012 database instance.

You plan to migrate the database to Windows Azure SQL Database. You verify that all objects contained in the database are compatible with Windows Azure SQL Database.

You need to ensure that database users and required server logins are migrated to Windows Azure SQL Database.

What should you do?

- A. Use the copy database wizard
- B. Use the Database Transfer wizard
- C. Use SQL Server Management Studio to deploy the database to Windows Azure SQL Database
- D. Backup the database from the local server and restore it to Windows Azure SQL Database

Correct Answer: C Section: Volume B Explanation

**Explanation/Reference:** 

QUESTION 44 You administer a Microsoft SQL Server 2012 database named Orders.

Orders contains a table named OrderShip that is defined as follows:

```
CREATE TABLE OrderShip
(OrderID bigint NOT NULL PRIMARY KEY,
CustomerID int NOT NULL,
ShipAddress nvarchar(500) NOT NULL,
CountryCode tinyint NULL)
```

A NULL value represents a domestic order. Ninety percent of the values in CountryCode are NULL.

Customers require a procedure that will return orders for all customers from a specified country. You create a new procedure:

```
CREATE PROCEDURE p_GetIntlOrders
(@countrycode tinyint)
AS
SELECT DISTINCT CustomerID, ShipAddress
FROM OrderShip
WHERE CountryCode = @countrycode
GO
```

Performance on this procedure is slow.

You need to alter the schema to optimize this query. Objects created must use a minimum amount of resources.

Which Transact-SQL statement should you use?

A. CREATE NONCLUSTERED INDEX IX\_CountryCode ON Ordership (CountryCode) WHERE CountryCode IS NOT NULL

- B. CREATE STATISTICS ST\_CountryCode ON OrderShip (CountryCode) WHERE CountryCode IS NOT NULL
- C. CREATE CLUSTERED INDEX IX\_CountryCode ON OrderShip (CountryCode)
- D. CREATE INDEX IX\_CountryCode ON OrderShip (CustomerID) WHERE CountryCode IS NOT NULL

Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 45**

You administer a Microsoft SQL Server 2012 database. The database is currently configured to log ship to a secondary server.

You are preparing to cut over to the secondary server by stopping log-shipping and bringing the secondary database online. You want to perform a taillog backup.

You need to leave the primary database in a restoring state.

Which option of the BACKUP LOG command should you use?

- A. NO\_TRUNCATE
- B. NORECOVERY
- C. STANDBY
- D. FORMAT

Correct Answer: B Section: Volume B Explanation

Explanation/Reference:

# **QUESTION 46**

You administer a Microsoft SQL Server 2012 database. You want to make a full backup of the database to a file on disk.

In doing so, you need to output the progress of the backup.

Which backup option should you use?

- A. STATS
- B. COMPRESSION
- C. CHECKSUM
- D. IN IT

Correct Answer: A Section: Volume B Explanation

**Explanation/Reference:** 

**QUESTION 47** You are a database administrator for a Microsoft SQL Server 2012 database named AdventureWorks2012.

You create an Availability Group defined by the following schema. (Line numbers are included for reference only.)

```
01 CREATE AVAILABILITY GROUP Group1
02 FOR DATABASE AdventureWorks2012
03 REPLICA ON 'SecondaryServer'
04 WITH(
05 ENDPOINT_URL = 'TCP://SecondaryServer:5022',
06 ...
07 );
```

You need to implement an AlwaysOnAvailablity Group that will meet the following conditions: Production transactions should be minimally affected. The secondary server should allow reporting queries to be performed. If the primary server goes offline, the secondary server should not automatically take over.

Which Transact-SQL statement should you insert at line 06?

- A. AVAILABILITY\_MODE = SYNCHRONOUS\_COMMIT, FAILOVER\_MODE = MANUAL SECONDARY\_ROLE ( ALLOW\_CONNECTIONS = READ\_ONLY, READ\_ONLY\_ROUTING\_URL = 'TCP://SecondaryServer:1433') PRIMARY\_ROLE ( ALLOW\_CONNECTIONS = READ\_WRITE, READ\_ONLY\_ROUTING\_LIST = NONE)
- B. AVAILABILITY\_MODE = SYNCHRONOUS\_COMMIT, FAILOVER\_MODE = MANUAL SECONDARY\_ROLE ( ALLOW\_CONNECTIONS = READ\_ONLY, READ\_ONLY\_ROUTING\_URL = 'TCP://SecondaryServer:1433')
- C. AVAILABILITY\_MODE = ASYNCHRONOUS\_COMMIT, FAILOVER\_MODE = MANUAL SECONDARY\_ROLE ( ALLOW\_CONNECTIONS = READ\_ONLY, READ\_ONLY\_ROUTING\_URL = 'TCP://SecondaryServer:1433')
- D. AVAILABILITY\_MODE = ASYNCHRONOUS\_COMMIT, FAILOVER\_MODE = MANUAL SECONDARY\_ROLE ( ALLOW\_CONNECTIONS = YES, READ\_ONLY\_ROUTING\_URL = 'TCP://SecondaryServer:1433')

Correct Answer: D Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 48**

You administer two Microsoft SQL Server 2012 servers named ProdSrv1 and ProdSrv2. ProdSrv1 is configured as a Distributor. Both servers are configured to use the Windows NT Service virtual accounts for all SQL Services.

You are configuring snapshot replication from ProdSrv1 to ProdSrv2 by using ProdSrv2 as a pull subscriber.

The distribution agent on ProdSrv2 regularly fails, displaying the following error message:

"Cannot access the file. Operating system error code 5 (Access is denied.)." You need to configure the distribution agent by granting only the minimum required access to all accounts.

What should you do?

- A. Configure the Subscriber to use the Local System account.
- B. Configure the SQL Server Agent service to run under the Local System account. Configure the Subscriber to use the SQL Server Agent service account.
- C. Configure the SQL Server Agent service to run under a Windows domain account. Configure the Subscriber to use the SQL Server Agent service account. Grant FULL CONTROL access for the domain account to the RepIData share on ProdSrv1.
- D. Configure the Subscriber to use a Windows domain account. Grant READ access for the domain account to the RepIData share on ProdSrv1.

Correct Answer: D Section: Volume B Explanation

Explanation/Reference:

#### **QUESTION 49**

You are a database administrator for a Microsoft SQL Server 2012 environment.

You want to deploy a new application that will scale out the workload to at least five different SQL Server instances.

You need to ensure that for each copy of the database, users are able to read and write data that will then be synchronized between all of the database instances.

Which feature should you use?

- A. Database Mirroring
- B. Peer-to-Peer Replication
- C. Log Shipping
- D. Availability Groups

Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 50**

You administer a Microsoft SQL Server 2012 instance that has multiple databases. You have a two-node SQL Server failover cluster. The cluster uses a storage area network (SAN). You discover I/O issues. The SAN is at capacity and additional disks cannot be added.

You need to reduce the I/O workload on the SAN at a minimal cost.

What should you do?

- A. Move user databases to a local disk.
- B. Expand the tempdb data and log files
- C. Modify application code to use table variables
- D. Move the tempdb files to a local disk

Correct Answer: D Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 51**

You administer a Microsoft SQL Server 2012 database that includes a table named Application. Events. Application. Events contains millions of records about user activity in an application.

Records in Application. Events that are more than 90 days old are purged nightly. When records are purged, table locks are causing contention with inserts.

You need to be able to modify Application. Events without requiring any changes to the applications that utilize Application. Events.

Which type of solution should you use?

- A. Partitioned tables
- B. Online index rebuild
- C. Change data capture
- D. Change tracking

Correct Answer: A Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 52**

You administer a Microsoft SQL Server 2012 environment. One of the SQL Server 2012 instances contains a database named Sales.

You plan to migrate Sales to Windows Azure SQL Database.

To do so, you need to implement a contained database.

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

- A. Set database containment to AZURE.
- B. Enable server property contained database authentication.
- C. Disable server property cross db ownership chaining.
- D. Set database containment to PARTIAL.
- E. Disable server property contained database authentication.
- F. Set database containment to FULL.

Correct Answer: BD Section: Volume B Explanation

**Explanation/Reference:** 

**QUESTION 53** 

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to track all SELECT statements issued in the Contoso database only by users in a role named Sales.

What should you create?

- A. An Alert
- B. A Resource Pool
- C. An Extended Event session
- D. A Server Audit Specification
- E. A SQL Profiler Trace
- F. A Database Audit Specification
- G. A Policy
- H. A Data Collector Set

Correct Answer: F Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 54**

You administer a Microsoft SQL Server 2012 database named Contoso on a server named Server01.

You need to collect data for a long period of time to troubleshoot wait statistics when querying Contoso. You also need to ensure minimum impact to the server.

What should you create?

- A. An Alert
- B. A Resource Pool
- C. An Extended Event session
- D. A Server Audit Specification
- E. A SQL Profiler Trace
- F. A Database Audit Specification
- G. A Policy

Correct Answer: C Section: Volume B

# Explanation

#### Explanation/Reference:

# **QUESTION 55**

You plan to install Microsoft SQL Server 2012 for a web hosting company.

The company plans to host multiple web sites, each supported by a SQL Server database.

You need to select an edition of SQL Server that features backup compression of databases, basic data integration features, and low total cost of ownership.

Which edition should you choose?

A. Express Edition with Tools

B. Standard Edition

- C. Web Edition
- D. Express Edition with Advanced Services

Correct Answer: B Section: Volume B Explanation

#### **Explanation/Reference:**

**QUESTION 56** You plan to install a Microsoft SQL Server 2012 instance.

The instance will support a database that has the following requirements: Store Excel workbooks on the file system. Access the workbooks through Transact-SQL. Include the workbooks in database backups.

During installation, you need to ensure that the requirements will be met.

Which feature should you use?

- A. Excel Services
- **B. FILESTREAM**
- C. SQL Server Integration Services (SSIS)

D. OpenXML

Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 57**

You administer a Microsoft SQL Server 2012 instance named SQL2012. You are in the process of migrating a database from a SQL Server 2008 instance named SQL2008 to the SQL2012 instance.

You have upgraded a database from the SQL2008 instance by using the side-by-side migration technique.

You need to migrate the SQL Server logins from the SQL2008 instance to the SQL2012 instance.

What should you do?

- A. Back up the master database on the SQL2008 instance. Restore the master database on the SQL2012 instance
- B. Use the Transfer Logins task in a Microsoft SQL Server Integrated Services package
- C. Use sp\_grantlogin
- D. Use xp\_logininfo.

Correct Answer: B Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 58**

You administer a Microsoft SQL Server 2012 database instance. You create a new user named UserA.

You need to ensure that UserA is able to create SQL Server Agent jobs and execute SQL Server agent jobs owned by UserA

To which role should you add UserA?

- A. DatabaseMailUserRole
- B. ServerGroupAdministratorGroup
- C. SQLAgentUserRole

D. Securityadmin

Correct Answer: C Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 59**

You administer a Microsoft SQL Server 2012 database.

You have a SQL Server Agent job instance that runs using the service account. You have a job step within the job that requires elevated privileges.

You need to ensure that the job step can run using a different user account.

What should you use?

- A. a schedule
- B. an alert
- C. an operator
- D. a proxy

Correct Answer: D Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 60**

You have been hired as a Database Consultant by ABC.com to design a SQL Server 2012 database solution.

You are tasked with designing a scale-out and high-availability SQL Server 2012 Online Transaction Processing (OLTP) database solution that will maintain copies of data across two server instances.

Your solution must provide scale-out of read operations by distributing the reads from clients across two SQL Server 2012 nodes. The data in both SQL Server nodes needs to be indexed.

What should you include in your solution?

A. You should include a primary database with scheduled log shipping to the secondary database configured.

B. You should include two servers configured in an Active-Passive SQL Server 2012 Cluster.

- C. You should include a primary SQL Server 2012 database that uses transactional replication to replicate data to the secondary database.
- D. You should include two servers in an Asynchronous-Commit Availability Mode Availability Group.
- E. You should include two servers in a Synchronous-Commit Availability Mode Availability Group.

#### Correct Answer: C Section: Volume B Explanation

# Explanation/Reference:

# **QUESTION 61**

You are a database developer of a Microsoft SQL Server 2012 database. You are designing a table that will store Customer data from different sources. The table will include a column that contains the CustomerID from the source system and a column that contains the SourceID. A sample of this data is as shown in the following table.

CustomerID	Customer Name
234	John Smith
7345	Jason Warren
4402	Susan Burk
866	Michael Allen
	CustomerID           234           7345           4402           866

You need to ensure that the table has no duplicate CustomerID within a SourceID. You also need to ensure that the data in the table is in the order of SourceID and then CustomerID. Which Transact- SQL statement should you use?

- A. CREATE TABLE Customer (SourceID int NOT NULL IDENTITY, CustomerID int NOT NULL IDENTITY, CustomerName varchar(255) NOT NULL);
- B. CREATE TABLE Customer (SourceID int NOT NULL, CustomerID int NOT NULL PRIMARY KEY CLUSTERED, CustomerName varchar(255) NOT NULL);
- C. CREATE TABLE Customer

(SourceID int NOT NULL PRIMARY KEY CLUSTERED, CustomerID int NOT NULL UNIQUE, CustomerName varchar(255) NOT NULL);

D. CREATE TABLE Customer (SourceID int NOT NULL, CustomerID int NOT NULL, CustomerName varchar(255) NOT NULL, CONSTRAINT PK\_Customer PRIMARY KEY CLUSTERED (SourceID, CustomerID));

Correct Answer: D Section: Volume B Explanation

Explanation/Reference:

# **QUESTION 62**

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)

Customers	Orders
😵 CustomerId	😵 OrderId
Name	CustomerId
Country	OrderDate
	Amount

You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```
<Customers>
<Name>Customer A</Name>
<Country>Australia</Country>
<Orders>
<OrderId>1</OrderId>
<OrderDate>2000-01-01T00:00:00</OrderDate>
<Amount>3400.00</Amount>
</Orders>
<Orders>
<OrderId>2</OrderId>
<OrderId>2</OrderId>
<Amount>4300.00</Amount>
</Orders>
</Customers>
```

Which Transact-SQL query should you use?

- A. SELECT Orderld, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers-CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW
- B. SELECT Orderld, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW, ELEMENTS
- C. SELECT Orderld, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO
- D. SELECT Orderld, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.Customerld Customers.Customerld WHERE Customers.Customerld= 1 FOR XML AUTO, ELEMENTS
- E. SELECT Name, Country, Orderld, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId= 1 FOR XML AUTO, ELEMENTS
- F. SELECT Name, Country, Crderld, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= FOR XML AUTO, ELEMENTS
- G. SELECT Name AS `@Name', Country AS `@Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers. CustomerId= 1 FOR XML PATH (`Customers')
- H. SELECT Name AS `Customers/Name', Country AS `Customers/Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1 FOR XML PATH (`Customers'

Correct Answer: E Section: Volume B Explanation

Explanation/Reference:

# **QUESTION 63**

You administer a Microsoft SQL Server 2012 database named ContosoDb. Tables are defined as shown in the exhibit. (Click the Exhibit button.)



You need to display rows from the Orders table for the Customers row having the CustomerId value set to 1 in the following XML format.

```
<Customers Name="Customer A" Country="Australia">
<OrderId>1</OrderId>
<OrderDate>2000-01-01T00:00:00</OrderDate>
<Amount>3400.00</Amount>
</Customers>
<Customers Name="Customer A" Country="Australia">
<OrderId>2</OrderId>
<OrderId>2</OrderId>
<OrderDate>2001-01-01T00:00:00</OrderDate>
<Amount>4300.00</Amount>
</Customers>
```

Which Transact-SQL query should you use?

A. SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers

ON Orders.CustomerId = Customers-CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW

- B. SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML RAW, ELEMENTS
- C. SELECT Orderld, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId = 1 FOR XML AUTO
- D. SELECT OrderId, OrderDate, Amount, Name, Country FROM Orders INNER JOIN Customers ON Orders.CustomerId Customers.CustomerId WHERE Customers.CustomerId= 1 FOR XML AUTO, ELEMENTS
- E. SELECT Name, Country, Orderld, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= FOR XML AUTO
- F. SELECT Name, Country, Crderld, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= FOR XML AUTO, ELEMENTS
- G. SELECT Name AS `@Name', Country AS `@Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers. CustomerId= 1 FOR XML PATH (`Customers')
- H. SELECT Name AS `Customers/Name', Country AS `Customers/Country', OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1 FOR XML PATH (`Customers'

Correct Answer: G Section: Volume B Explanation

**Explanation/Reference:** 

# **QUESTION 64**

You use Microsoft SQL Server 2012 to develop a database application. You need to implement a computed column that references a lookup table by using an INNER JOIN against another table.

What should you do?

- A. Reference a user-defined function within the computed column.
- B. Create a BEFORE trigger that maintains the state of the computed column.
- C. Add a default constraint to the computed column that implements hard-coded values.
- D. Add a default constraint to the computed column that implements hard-coded CASE statements.

Correct Answer: A Section: Volume B Explanation

# Explanation/Reference:

# **QUESTION 65**

You use a Microsoft SQL Server 2012 database that contains two tables named SalesOrderHeader and SalesOrderDetail. The indexes on the tables are as shown in the exhibit. (Click the Exhibit button.)



You write the following Transact-SQL query:

```
SELECT h.SalesOrderID, h.TotalDue, d.OrderQty
FROM Sales.SalesOrderHeader AS h
INNER JOIN Sales.SalesOrderDetail AS d
ON h.SalesOrderID = d.SalesOrderID
WHERE h.TotalDue > 100
AND (d.OrderQty > 5 OR d.LineTotal < 1000.00);</pre>
```

You discover that the performance of the query is slow. Analysis of the query plan shows table scans where the estimated rows do not match the actual rows for SalesOrderHeader by using an unexpected index on SalesOrderDetail.

You need to improve the performance of the query.

What should you do?

- A. Use a FORCESCAN hint in the query.
- B. Add a clustered index on SalesOrderId in SalesOrderHeader.
- C. Use a FORCESEEK hint in the query.
- D. Update statistics on SalesOrderld on both tables.

Correct Answer: D Section: Volume B Explanation

Explanation/Reference: Explanation/Reference: http://msdn.microsoft.com/en-us/library/ms187348.aspx

#### **QUESTION 66**

You are a database developer for an application hosted on a Microsoft SQL Server 2012 server. The database contains two tables that have the following definitions:

CREATE TABLE Customer (CustomerID int NOT NULL PRIMARY KEY, CustomerName varchar(50) NOT NULL)

CREATE TABLE Orders (OrderID int NOT NULL PRIMARY KEY, CustomerID int NOT NULL FOREIGN KEY REFERENCES Customer (CustomerID), OrderAmount money NOT NULL, ShippingCountry varchar(50) NOT NULL)

Global customers place orders from several countries. You need to view the country from which each customer has placed the most orders.

Which Transact-SQL query do you use?

A. SELECT c.CustomerID, c.CustomerName, o.ShippingCountry FROM Customer c INNER JOIN (SELECT CustomerID, ShippingCountry, RANK() OVER (PARTITION BY CustomerID ORDER BY COUNT(OrderAmount) DESC) AS Rnk FROM Orders GROUP BY CustomerID, ShippingCountry) AS o ON c.CustomerID = o.CustomerID WHERE o.Rnk = 1
B. SELECT c.CustomerID, c.CustomerName, o.ShippingCountry FROM (SELECT c.CustomerID, c.CustomerName, o.ShippingCountry, RANK() OVER (PARTITION BY CustomerID ORDER BY COUNT(o.OrderAmount) ASC) AS Rnk FROM Customer c INNER JOIN Orders o

ON c.CustomerID = o.CustomerID GROUP BY c.CustomerID, c.CustomerName, o.ShippingCountry) cs WHERE Rnk = 1
C. SELECT c.CustomerID, c.CustomerName, o.ShippingCountry FROM Customer c INNER JOIN (SELECT CustomerID, ShippingCountry,

RANK() OVER (PARTITION BY CustomerID ORDER BY OrderAmount DESC) AS Rnk FROM Orders GROUP BY CustomerID, ShippingCountry) AS o ON c.CustomerID = o.CustomerID WHERE o.Rnk = 1  D. SELECT c.CustomerID, c.CustomerName, o.ShippingCountry FROM Customer c INNER JOIN (SELECT CustomerID, ShippingCountry, COUNT(OrderAmount) DESC) AS OrderAmount FROM Orders GROUP BY CustomerID, ShippingCountry) AS o ON c.CustomerID = o.CustomerID ORDER BY OrderAmount DESC

Correct Answer: A Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 67**

You use Microsoft SQL Server 2012 to develop a database application. You need to create an object that meets the following requirements: Takes an input variable Returns a table of values Cannot be referenced within a view

Which object should you use?

- A. Scalar-valued function
- B. Inline function
- C. User-defined data type
- D. Stored procedure

Correct Answer: D Section: Volume B Explanation

**Explanation/Reference:** 

#### **QUESTION 68**

You administer a SQL Server 2012 server that contains a database named SalesDb. SalesDb contains a schema named Customers that has a table named Regions. A user named UserA is a member of a role named Sales. UserA is granted the Select permission on the Regions table. The Sales role is granted the Select permission on the Customers schema.

You need to ensure that the following requirements are met:

The Sales role does not have the Select permission on the Customers schema. UserA has the Select permission on the Regions table.

Which Transact-SQL statement should you use?

- A. DENY SELECT ON Object::Regions FROM Sales
- B. DENY SELECT ON Schema::Customers FROM Sales
- C. REVOKE SELECT ON Object::Regions FROM Sales
- D. REVOKE SELECT ON Schema::Customers FROM Sales
- E. DENY SELECT ON Object::Regions FROM UserA
- F. DENY SELECT ON Schema::Customers FROM UserA
- G. REVOKE SELECT ON Object::Regions FROM UserA
- H. REVOKE SELECT ON Schema::Customers FOR UserA
- I. EXEC sp\_addrolemember `Sales', `UserA'
- J. EXEC sp\_droprolemember `Sales', `UserA'

Correct Answer: D Section: Volume B Explanation

# Explanation/Reference:

#### Explanation/Reference:

http://msdn.microsoft.com/en-us/library/ms188369.aspx http://msdn.microsoft.com/en-us/library/ms187750.aspx http://msdn.microsoft.com/en-us/library/ff848791.aspx

# **QUESTION 69**

You develop a Microsoft SQL Server 2012 database that contains a heap named OrdersHistoncal.

You write the following Transact-SQL query:

INSERT INTO OrdersHistorical SELECT \* FROM CompletedOrders

You need to optimize transaction logging and locking for the statement.

Which table hint should you use?

- A. HOLDLOCK
- B. ROWLOCK
- C. XLOCK
- D. UPDLOCK

E. TABLOCK

Correct Answer: E Section: Volume B Explanation

#### **Explanation/Reference:**

Explanation/Reference: http://technet.microsoft.com/en-us/library/ms189857.aspx http://msdn.microsoft.com/en-us/library/ms187373.aspx

# **QUESTION 70**

Your database contains a table named Purchases. The table includes a DATETIME column named PurchaseTime that stores the date and time each purchase is made. There is a non- clustered index on the PurchaseTime column. The business team wants a report that displays the total number of purchases made on the current day. You need to write a query that will return the correct results in the most efficient manner.

Which Transact-SQL query should you use?

- A. SELECT COUNT(\*) FROM Purchases
   WHERE PurchaseTime = CONVERT(DATE, GETDATE())
- B. SELECT COUNT(\*) FROM Purchases WHERE PurchaseTime = GETDATE()
- C. SELECT COUNT(\*) FROM Purchases WHERE CONVERT(VARCHAR, PurchaseTime, 112) = CONVERT(VARCHAR, GETDATE(), 112)
- D. SELECT COUNT(\*) FROM Purchases WHERE PurchaseTime >= CONVERT(DATE, GETDATE()) AND PurchaseTime <DATEADD(DAY, 1, CONVERT(DATE, GETDATE()))</p>

Correct Answer: D Section: Volume B Explanation

Explanation/Reference: Explanation/Reference: http://technet.microsoft.com/en-us/library/ms181034.aspx