

**Question No : 1 DRAG DROP - (Topic 1)**

You administer three Microsoft SQL Server 2008 R2 instances.

Database mirroring is configured in High-Safety mode with Automatic Failover between the following three servers:

- ☞ SQL1 is the Principal server.
- ☞ SQL2 is the mirror server.
- ☞ SQL3 is the witness server.

You need to upgrade SQL1 and SQL2 to SQL Server . You need to ensure that downtime is minimized during the upgrade.

Which six actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Configure log shipping between SQL1 and SQL2.	<div>➤</div> <div>➤</div>	
Upgrade SQL1 to SQL Server 2012.		
Upgrade SQL2 to SQL Server 2012.		
Disable log shipping between SQL1 and SQL2.		
Manually failover the database from SQL1 to SQL2.		
Manually failover the database from SQL2 to SQL1.		
Add SQL3 back to the database mirroring solution.		
Remove SQL3 from the database mirroring solution.		

**Answer:**

Configure log shipping between SQL1 and SQL2.	<div>➤</div> <div>➤</div>	Remove SQL3 from the database mirroring solution.
Upgrade SQL1 to SQL Server 2012.		Upgrade SQL2 to SQL Server 2012.
Upgrade SQL2 to SQL Server 2012.		Manually failover the database from SQL1 to SQL2.
Disable log shipping between SQL1 and SQL2.		Upgrade SQL1 to SQL Server 2012.
Manually failover the database from SQL1 to SQL2.		Manually failover the database from SQL2 to SQL1.
Manually failover the database from SQL2 to SQL1.		Add SQL3 back to the database mirroring solution.
Add SQL3 back to the database mirroring solution.		
Remove SQL3 from the database mirroring solution.		

### Question No : 2 DRAG DROP - (Topic 1)

You administer a Microsoft SQL Server 2016 server.

A variety of issues occur from time to time in the production environment. You need to identify the appropriate tool for each issue.

Which tool or tools should you use? (To answer, drag the appropriate tool or tools to the correct issue or issues in the answer area. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Tool	Issue
DBCC CHECKDB	You want to verify network utilization.
Performance Monitor	You suspect that a process is being blocked.
sys.dm_exec_requests DMV	You need to validate the integrity of the database.
SQL Server error log	A SQL Agent job fails on a specific step, and you need the details of that step.
Job History	SQL Server will not start.

**Answer:**

Tool	Issue
DBCC CHECKDB	You want to verify network utilization.
Performance Monitor	You suspect that a process is being blocked.
sys.dm_exec_requests DMV	You need to validate the integrity of the database.
SQL Server error log	A SQL Agent job fails on a specific step, and you need the details of that step.
Job History	SQL Server will not start.

### Question No : 3 - (Topic 1)

You administer two instances of Microsoft SQL Server 2016. 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. Use the Data Quality Client to configure the application.
- B. Start the SQL Server Browser Service.
- C. Use the Master Data Services Configuration Manager to configure the application.
- D. Start the SQL Server Integration Services Service.

**Answer: B**

#### Question No : 4 - (Topic 1)

You administer a Microsoft SQL Server 2016 database.

You create an availability group named haContosoDbs. Your primary replica is available at Server01\Contoso01.

You need to configure the availability group to have the highest availability.

You also need to ensure that no data is lost.

Which Transact-SQL statement should you use?

- ☐ A. `ALTER AVAILABILITY GROUP haContosoDbs MODIFY REPLICA ON 'Server01\Contoso01' WITH (AVAILABILITY_MODE = ASYNCHRONOUS_COMMIT, FAILOVER_MODE = AUTOMATIC)`
- ☐ B. `ALTER AVAILABILITY GROUP haContosoDbs MODIFY REPLICA ON 'Server01\Contoso01' WITH (AVAILABILITY_MODE = SYNCHRONOUS_COMMIT, FAILOVER_MODE = MANUAL)`
- ☐ C. `ALTER AVAILABILITY GROUP haContosoDbs MODIFY REPLICA ON 'Server01\Contoso01' WITH (AVAILABILITY_MODE = SYNCHRONOUS_COMMIT, FAILOVER_MODE = AUTOMATIC)`
- ☐ D. `ALTER AVAILABILITY GROUP haContosoDbs MODIFY REPLICA ON 'Server01\Contoso01' WITH (AVAILABILITY_MODE = ASYNCHRONOUS_COMMIT, FAILOVER_MODE = MANUAL)`

C. FULL

4

D. CHECKSUM

4

**Answer: C**

**Question No : 5 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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

**Answer: F**

**Explanation:**

References: <http://msdn.microsoft.com/en-us/library/ms186865.aspx>

<http://msdn.microsoft.com/enus/library/microsoft.sqlserver.management.smo.backuprestorebase.continueaftererror.aspx>

**Question No : 6 DRAG DROP - (Topic 1)**

You administer three Microsoft SQL Server 2016 servers named ServerA, ServerB, and ServerC.

ServerA is the acting principal and ServerB is the mirror.

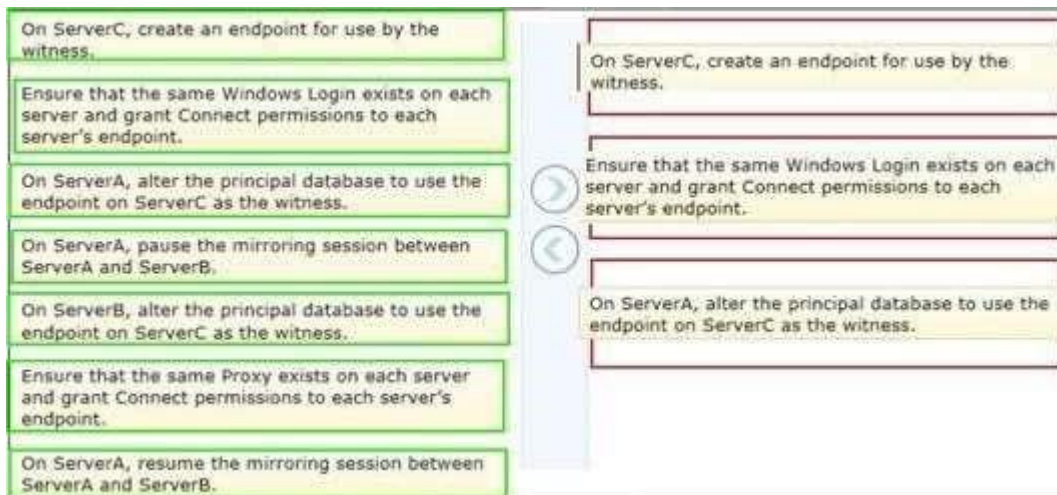
You need to add ServerC as a witness to the existing mirroring session between ServerA and ServerB.

You need to achieve this goal without delaying synchronization.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



**Answer:**



### Question No : 7 - (Topic 1)

You administer all the deployments of Microsoft SQL Server 2016 in your company.

You need to ensure that an OLTP database that includes up-to-the-minute reporting requirements can be off-loaded from the primary database to another server. You also need to be able to add indexes to the secondary database.

Which configuration should you use?

**A.**

- Two servers configured in different data centers

- SQL Server Availability Group configured in Synchronous-Commit Availability Mode • One server configured as an Active Secondary
- **B.**
- 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
- **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 Asynchronous-Commit Availability Mode
- **E.**
- Two servers configured on the same subnet
- SQL Server Availability Group configured in Synchronous-Commit Availability Mode
- F.**
- SQL Server that includes an application database configured to perform transactional replication
- **G.**
- SQL Server that includes an application database configured to perform snapshot replication
- **H.**
- Two servers configured in a Windows Failover Cluster in the same data center • SQL Server configured as a clustered instance

**Answer: F** Reference:

<http://msdn.microsoft.com/en-us/library/jj542414.aspx>

### **Question No : 8 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: D**

**Explanation:**

References: <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>

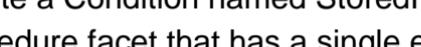
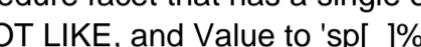
<http://msdn.microsoft.com/en-us/library/ee240835.aspx>

#### **Question No : 9 DRAG DROP - (Topic 1)**

You administer a Microsoft SQL Server 2016 server that has multiple databases.

You need to ensure that users are unable to create stored procedures that begin with sp\_.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

- Create a Condition named StoredProcNamingConvention by using the Stored Procedure facet that has a single expression. Set the Field to @Name, Operator to NOT LIKE, and Value to 'sp[\_]%'.  

- Create a Policy named StoredProcNamingPolicy Set the Check condition to StoredProcNamingConvention and Evaluation Mode to On Change: Prevent 

**Question No : 10 - (Topic 1)**

You administer a Microsoft SQL Server 2016 server.

When transaction logs grow, SQL Server must send an email message to the database administrators.

You need to configure SQL Server to send the email messages.

What should you configure?

- A. SQL Mail
- B. An Extended Events session
- C. Alerts and operators in SQL Server Agent
- D. Policies under Policy-Based Management

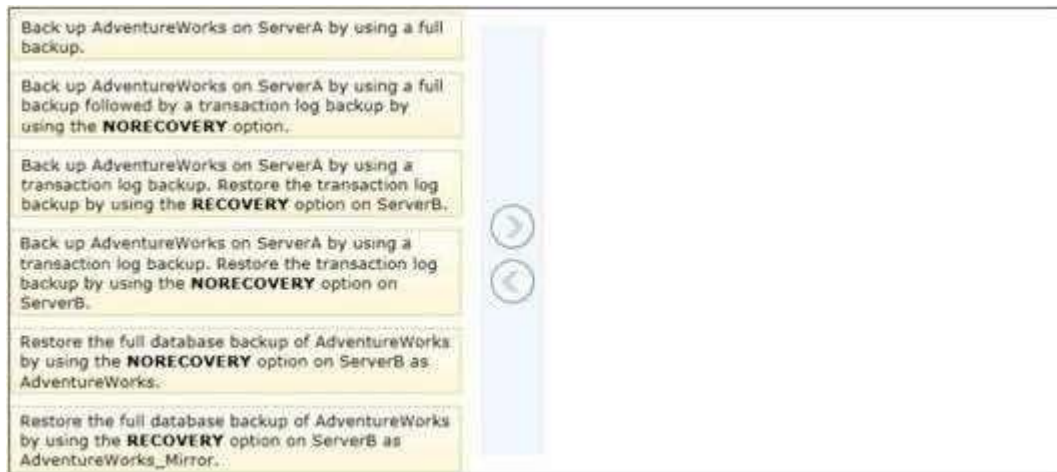
**Answer: C**

**Question No : 11 DRAG DROP - (Topic 1)**

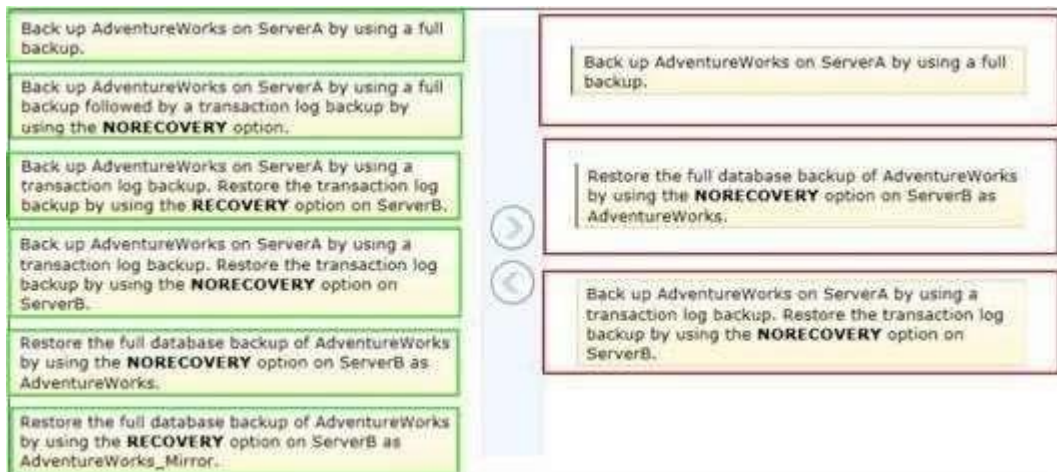
You administer two Microsoft SQL Server 2016 servers named ServerA and ServerB. You use a database named AdventureWorks.

You need to prepare the AdventureWorks database for database mirroring. ServerB will act as the mirror in a mirroring partnership along with ServerA.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



**Answer:**



## Question No : 12 - (Topic 1)

You are the lead database administrator (DBA) of a Microsoft SQL Server 2016 environment.

All DBAs are members of the DOMAIN\JrDBAs Active Directory group. You grant DOMAIN\JrDBAs access to the SQL Server.

You need to create a server role named SpecialDBARole that can perform the following functions:

- ☞ View all databases.
- ☞ View the server state.
- ☞ Assign GRANT, DENY, and REVOKE permissions on logins.

You need to add DOMAIN\JrDBAs to the server role. You also need to provide the least level of privileges necessary.

Which SQL statement or statements should you use? Choose all that apply.

- A. CREATE SERVER ROLE [SpecialDBARole] AUTHORIZATION setupadmin;
- B. ALTER SERVER ROLE [SpecialDBARole] ADD MEMBER [DOMAIN\JrDBAs];
- C. CREATE SERVER ROLE [SpecialDBARole] AUTHORIZATION securityadmin;
- D. GRANT VIEW DEFINITION TO [SpecialDBARole];
- E. CREATE SERVER ROLE [SpecialDBARole] AUTHORIZATION serveradmin;
- F. GRANT VIEW SERVER STATE, VIEW ANY DATABASE TO [SpecialDBARole];

**Answer: B,C,F**

#### Question No : 13 - (Topic 1)

You administer all the deployments of Microsoft SQL Server 2016 in your company.

You need to ensure that an OLTP database that uses a storage area network (SAN) remains available if any of the servers fail.

You also need to minimize the amount of storage used by the database.

Which configuration should you use?

- A.
  - Two servers configured in different data centers
  - SQL Server Availability Group configured in Synchronous-Commit Availability Mode • One server configured as an Active Secondary
- B.
  - SQL Server that includes an application database configured to perform transactional replication
- C.
  - 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
- D.
  - Two servers configured in different data centers

- SQL Server Availability Group configured in Asynchronous-Commit Availability Mode
  - **E.**
  - 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
  - F.**
  - Two servers configured on the same subnet
  - SQL Server Availability Group configured in Synchronous-Commit Availability Mode
  - **G.**
  -
- 

SQL Server that includes an application database configured to perform snapshot replication

- **H.**
- Two servers configured in a Windows Failover Cluster in the same data center • SQL Server configured as a clustered instance

**Answer: H**

#### **Question No : 14 DRAG DROP - (Topic 1)**

You administer a Microsoft SQL Server database that is used by an application.

Users of the application report performance issues.

You need to choose the appropriate tool for performance-tuning of SQL Server databases.

Which tool or tools should you use? (To answer, drag the appropriate tool or tools to their corresponding task or tasks in the answer area. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Tool	Task	
SQL Profiler	Generating alerts	
System Monitor	Capturing and replaying trace activity	
XEvents	Identifying cause of high page splits	
	Troubleshooting cause of high page_io latch	

**Answer:**

Tool	Task	
SQL Profiler	Generating alerts	System Monitor
System Monitor	Capturing and replaying trace activity	SQL Profiler
XEvents	Identifying cause of high page splits	XEvents
	Troubleshooting cause of high page_io latch	XEvents

**Explanation:**

Generating alerts

System Monitor

Capturing and replaying trace activity

SQL Profiler

Identifying cause of high page splits

XEvents

Troubleshooting cause of high page\_io latch

XEvents

References:

<http://msdn.microsoft.com/en-us/library/bb630282.aspx> <http://msdn.microsoft.com/en-us/library/ms191246.aspx> <http://msdn.microsoft.com/en-us/library/ms181091.aspx>

### Question No : 15 - (Topic 1)

You administer a Microsoft SQL Server 2016 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.

**Answer: C,D**

**Explanation:**

References: <http://msdn.microsoft.com/en-us/library/ms175935.aspx>

<http://www.mssqltips.com/sqlservertip/2752/effect-of-instant-file-initializationwithinsqlserver/>

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 databaseengine service account.
3. Restart the SQL Server service using SQL Server Configuration Manager and this setting should now be enabled.

**Question No : 16 - (Topic 1)**

You administer a Microsoft SQL Server 2016 server that hosts a transactional database and a reporting database. The transactional database is updated through a web application and is operational throughout the day. The reporting database is only updated from the transactional database.

The recovery model and backup schedule are configured as shown in the following table:

Database	Description
Transactional database	<p>Recovery model:</p> <ul style="list-style-type: none"><li>• Full</li></ul> <p>Backup schedule:</p> <ul style="list-style-type: none"><li>• Full database backup: midnight, daily</li><li>• Differential database backup: on the hour, every two hours starting at 02:00 hours except at 00:00 hours</li><li>• Log backup: every half hour, except at the times of full and differential backups</li></ul>
Reporting database	<p>Recovery model:</p> <ul style="list-style-type: none"><li>• Simple</li></ul> <p>Backup schedule:</p> <ul style="list-style-type: none"><li>• Full database backup: 01:00 hours daily</li><li>• Differential database backup: 13:00 hours daily</li></ul> <p>Data updates:</p> <ul style="list-style-type: none"><li>• Changes in data are updated from the transactional database to the reporting database at 00:30 hours and at 12:30 hours</li><li>• The update takes 15 minutes</li></ul>

One of the hard disk drives that stores the reporting database fails at 16:40 hours.

You need to ensure that the reporting database is restored. You also need to ensure that data loss is minimal.

What should you do?

**A.** Restore the latest full backup. Then, restore each differential backup taken before the time of failure from the most recent full backup.

- B. Perform a partial restore.
- C. Restore the latest full backup, and restore the latest differential backup. Then, restore the latest log backup.
- D. Perform a point-in-time restore.
- E. Restore the latest full backup.
- F. Perform a page restore.
- G. Restore the latest full backup, and restore the latest differential backup. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- H. Restore the latest full backup. Then, restore the latest differential backup.

**Answer: H**

#### **Question No : 17 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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. BULK\_LOGGED
- G. STANDBY
- H. RESTART
- I. SKIP
- J. Transaction log
- K. DBO ONLY
- L. COPY\_ONLY
- M. SIMPLE
- N. CONTINUE AFTER ERROR

**Answer: L**

#### **Question No : 18 - (Topic 1)**

You administer a Microsoft SQL Server 2016 database.

You provide temporary securityadmin access to User1 to the database server.

You need to know if User1 adds logins to securityadmin.

Which server-level audit action group should you use?

- A. SERVER\_STATE\_CHANGE\_GROUP
- B. SERVER\_PRINCIPAL\_IMPERSONATION\_GROUP
- C. SUCCESSFUL\_LOGIN\_GROUP

#### D. SERVER\_ROLE\_MEMBER\_CHANGE\_GROUP

**Answer: D** Reference:

<http://technet.microsoft.com/en-us/library/cc280663.aspx>

#### SERVER\_STATE\_CHANGE\_GROUP

This event is raised when the SQL Server service state is modified. Equivalent to the Audit Server Starts and Stops Event Class.

#### SERVER\_PRINCIPAL\_IMPERSONATION\_GROUP

This event is raised when there is an impersonation within server scope, such as EXECUTE AS <login>.

Equivalent to the Audit Server Principal Impersonation Event Class.

SUCCESSFUL\_LOGIN\_GROUP Indicates that a principal has successfully logged in to SQL Server. Events in this class are raised by new connections or by connections that are reused from a connection pool. Equivalent to the Audit Login Event Class.

#### SERVER\_ROLE\_MEMBER\_CHANGE\_GROUP

This event is raised whenever a login is added or removed from a fixed server role. This event is raised for the sp\_addsrvrolemember and sp\_dropsrvrolemember stored procedures. Equivalent to the Audit Add Login to Server Role Event Class.

#### **Question No : 19 HOTSPOT - (Topic 1)**

You administer a Microsoft SQL Server 2016 database.

The database contains a table that has the following definition:

```
CREATE TABLE [Sales].[Customer] (
    [CustomerID] int NOT NULL,
    [CustomerName] nvarchar(50) NOT NULL,
    [TerritoryID] int NULL,
    [LastContactDate] datetimeoffset NULL,
    [CustomerType] nchar(1) NOT NULL,
    [Notes] varchar(250) NULL
)
```

You want to export data from the table to a flat file by using the SQL Server Import and Export Wizard.

You need to ensure that the following requirements are met:

- ☞ The first row of the file contains the first row of data.
- ☞ Each record is of the same length.
- ☞ The date follows the U.S. date format.
- ☞ The file supports international characters.

What should you do? (To answer, configure the appropriate option or options in the dialog box in the answer area.)



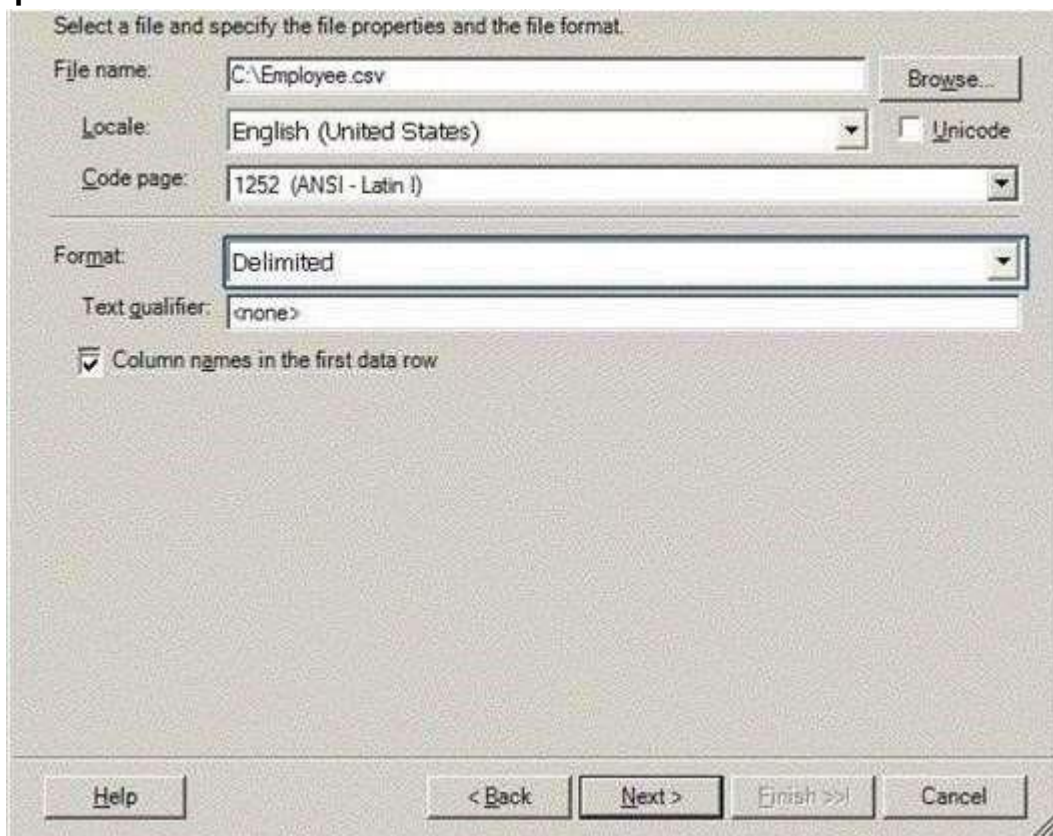
The screenshot shows the 'SQL Server Import and Export Wizard' window, specifically the 'Choose a Destination' step. The window title is 'SQL Server Import and Export Wizard'. The main heading is 'Choose a Destination' with the subtitle 'Specify where to copy data to.' Below this, there is a 'Destination:' label and a dropdown menu set to 'Flat File Destination'. A green arrow icon is visible to the right of the dropdown. Below the dropdown, the text 'Select a file and specify the file properties and the file format.' is displayed. The 'File name:' field contains 'C:\Employee.csv' and has a 'Browse...' button to its right. The 'Locale:' dropdown is set to 'English (United States)' and has an unchecked 'Unicode' checkbox to its right. The 'Code page:' dropdown is set to '1252 (ANSI - Latin I)'. The 'Format:' dropdown is currently empty. The 'Text qualifier:' field contains '<none>'. At the bottom, there is an unchecked checkbox labeled 'Column names in the first data row'. The bottom of the window features a navigation bar with buttons for 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel'.

Answer:



The screenshot shows the 'SQL Server Import and Export Wizard' window, specifically the 'Choose a Destination' step. The title bar reads 'SQL Server Import and Export Wizard'. The main heading is 'Choose a Destination' with the subtitle 'Specify where to copy data to.'. Below this, the 'Destination:' dropdown menu is set to 'Flat File Destination'. The instruction 'Select a file and specify the file properties and the file format.' is displayed. The 'File name:' field contains 'C:\Employee.csv' with a 'Browse...' button to its right. The 'Locale:' dropdown is set to 'English (United States)'. The 'Code page:' dropdown is set to '1252 (ANSI - Latin I)'. The 'Format:' dropdown is currently empty and is highlighted with a green border. The 'Text qualifier:' field contains '<none>'. There is an unchecked checkbox for 'Column names in the first data row'. At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel'.

Explanation:



This screenshot shows the same 'SQL Server Import and Export Wizard' window, but the 'Format:' dropdown menu is now set to 'Delimited'. The 'File name:' field remains 'C:\Employee.csv'. The 'Locale:' is 'English (United States)' and the 'Code page:' is '1252 (ANSI - Latin I)'. The 'Text qualifier:' is '<none>'. The checkbox for 'Column names in the first data row' is now checked. The 'Format:' dropdown is highlighted with a blue border. The navigation buttons at the bottom are the same as in the previous screenshot.

References: <http://msdn.microsoft.com/en-us/library/ms178804.aspx>  
<http://msdn.microsoft.com/en->

**Question No : 20 - (Topic 1)**

You administer a Microsoft SQL Server 2016 server that hosts a transactional database and a reporting database. The transactional database is updated through a web application and is operational throughout the day. The reporting database is only updated from the transactional database.

The recovery model and backup schedule are configured as shown in the following table:

Database	Description
Transactional database	<p>Recovery model:</p> <ul style="list-style-type: none"><li>• Full</li></ul> <p>Backup schedule:</p> <ul style="list-style-type: none"><li>• Full database backup: midnight, daily</li><li>• Differential database backup: on the hour, every two hours starting at 02:00 hours except at 00:00 hours</li><li>• Log backup: every half hour, except at the times of full and differential backups</li></ul>
Reporting database	<p>Recovery model:</p> <ul style="list-style-type: none"><li>• Simple</li></ul> <p>Backup schedule:</p> <ul style="list-style-type: none"><li>• Full database backup: 01:00 hours daily</li><li>• Differential database backup: 13:00 hours daily</li></ul> <p>Data updates:</p> <ul style="list-style-type: none"><li>• Changes in data are updated from the transactional database to the reporting database at 00:30 hours and at 12:30 hours</li><li>• The update takes 15 minutes</li></ul>

The differential backup of the reporting database fails. Then, the reporting database fails at 14:00 hours.

You need to ensure that the reporting database is restored. You also need to ensure that data loss is minimal.

What should you do?

- A.** Restore the latest full backup, and restore the latest differential backup. Then, restore the latest log backup.
- B.** Perform a point-in-time restore.
- C.** Restore the latest full backup.
- D.** Restore the latest full backup, and restore the latest differential backup. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- E.** Restore the latest full backup. Then, restore the latest differential backup.
- F.** Restore the latest full backup. Then, restore each differential backup taken before the time of failure from the most recent full backup. **G.** Perform a page restore. **H.** Perform a partial restore.

**Answer: C**

#### **Question No : 21 - (Topic 1)**

You are migrating a database named Orders to a new server that runs Microsoft SQL Server 2016.

You attempt to add the [Corpnet\User1] login to the database. However, you receive the following error message:

"User already exists in current database."

You need to configure the [Corpnet\User1] login to be able to access the Orders database and retain the original permissions. You need to achieve this goal by using the minimum required permissions.

Which Transact-SQL statement should you use?

- A.** DROP USER [User1];  
CREATE USER [Corpnet\User1] FOR LOGIN [Corpnet\User1];

ALTER ROLE [db\_owner] ADD MEMBER [Corpnet\User1];  
**B.** ALTER SERVER RCLS [sysadmin] ADD MEMBER [Corpnet\User1];  
**C.** ALTER USER [Corpnet\User1] WITH LOGIN [Corpnet\User1];  
**D.** ALTER ROLE [db\_owner] ADD MEMBER [Corpnet\User1]; **Answer: C** Reference:

<http://msdn.microsoft.com/en-us/library/ms176060.aspx>

**Question No : 22 - (Topic 1)**

You administer a Microsoft SQL Server 2016 server that hosts a transactional database and a reporting database. The transactional database is updated through a web application and is operational throughout the day. The reporting database is only updated from the transactional database.

The recovery model and backup schedule are configured as shown in the following table:

Database	Description
Transactional database	Recovery model: <ul style="list-style-type: none"> <li>Full</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: midnight, daily</li> <li>Differential database backup: on the hour, every two hours starting at 02:00 hours except at 00:00 hours</li> <li>Log backup: every half hour, except at the times of full and differential backups</li> </ul>
Reporting database	Recovery model: <ul style="list-style-type: none"> <li>Simple</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: 01:00 hours daily</li> <li>Differential database backup: 13:00 hours daily</li> </ul> Data updates: <ul style="list-style-type: none"> <li>Changes in data are updated from the transactional database to the reporting database at 00:30 hours and at 12:30 hours</li> <li>The update takes 15 minutes</li> </ul>

At 16:20 hours, you discover that pages 17, 137, and 205 on one of the database files are corrupted on the transactional database.

You need to ensure that the transactional database is restored.

You also need to ensure that data loss is minimal.

What should you do?

- A. Perform a partial restore.
- B. Restore the latest full backup, and restore the latest differential backup. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- C. Perform a point-in-time restore.
- D. Restore the latest full backup.
- E. Restore the latest full backup, and restore the latest differential backup. Then, restore the latest log backup.
- F. Perform a page restore.
- G. Restore the latest full backup. Then, restore each differential backup taken before the time of failure from the most recent full backup.
- H. Restore the latest full backup. Then, restore the latest differential backup.

**Answer: F Explanation:**

### **Requirements for Restoring Pages**

**A page restore is subject to the following requirements:**

- ☞ The databases must be using the full or bulk-logged recovery model. Some issues exist if you are using the bulk-logged model. For more information, see the following section.
- ☞ Pages in read-only filegroups cannot be restored. Trying to make a filegroup readonly will fail if there is a page restore going on at the same time in the filegroup.
- ☞ The restore sequence must start with a full, file, or filegroup backup.
- ☞ A page restore requires an unbroken chain of log backups up to the current log file, and they must all be applied so that the page is brought up to date with the current log file.
- ☞ As in a file-restore sequence, in each restore step, you can add more pages to the roll forward set.
- ☞ A database backup and page restore cannot be run at the same time.

### **Bulk-logged Recovery Model and Page Restore**

For a database that uses the bulk-logged recovery model, page restore has the following additional conditions:

- ☞ Backing up while filegroup or page data is offline is problematic for bulk-logged data, because the offline data is not recorded in the log. Any offline page can prevent backing up the log. In this cases, consider using
- ☞ DBCC REPAIR, because this might cause less data loss than restoring to the most recent backup.
- ☞ If a log backup of a bulk-logged database encounters a bad page, it fails unless WITH
- ☞ CONTINUE\_AFTER\_ERROR is specified.
- ☞ Page restore generally does not work with bulk-logged recovery.
- ☞ A best practice for performing page restore is to set the database to the full recovery model, and try a log backup. If the log backup works, you can continue with the page restore. If the log backup fails, you either have to lose work since the previous log backup or you have to try running DBCC must be run with the REPAIR\_ALLOW\_DATA\_LOSS option.

#### Question No : 23 - (Topic 1)

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. User mapped to a certificate
- B. SQL user without login
- C. Domain user
- D. SQL user with login

**Answer: C**

**Question No : 24 - (Topic 1)**

You administer all the deployments of Microsoft SQL Server 2016 in your company.

You need to ensure that data changes are sent to a non-SQL Server database server in near real time.

You also need to ensure that data on the primary server is unaffected.

Which configuration should you use?

- A.** • SQL Server that includes an application database configured to perform transactional replication
- B.** • Two servers configured in different data centers
  - SQL Server Availability Group configured in Asynchronous-Commit Availability Mode
  - C.**
  - Two servers configured in different data centers
  - SQL Server Availability Group configured in Synchronous-Commit Availability Mode
  - One server configured as an Active Secondary
- D.** • SQL Server that includes an application database configured to perform snapshot replication
- 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 on the same subnet
  - SQL Server Availability Group configured in Synchronous-Commit Availability Mode
  - G.**
  - Two servers configured in a Windows Failover Cluster in the same data center
  - SQL Server configured as a clustered instance
- H.** • 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

**Answer: A** Reference:

<http://msdn.microsoft.com/en-us/library/ms151149.aspx>

**Question No : 25 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B** 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 left-hand pane. Then, select Add node to a SQL Server failover cluster.

**Question No : 26 - (Topic 1)**

You create an availability group named HaContoso that has replicas named Server01/HA, Server02/HA, and Server03/HA.

Currently, Server01/HA is the primary replica.

You need to ensure that the following requirements are met:

- ☞ Backup operations occur on Server02/HA.
- ☞ If Server02/HA is unavailable, backup operations occur on Server03/HA.
- ☞ Backup operations do not occur on Server01/HA.

How should you configure HaContoso?

**A.**

- Set the backup preference of HaContoso to Prefer Secondary.
- Set the backup priority of Server02/HA to 20.
- Set the backup priority of Server03/HA to 10.

**B.**

- Set the backup preference of HaContoso to Secondary only.
- Set the backup priority of Server02/HA to 20.
- Set the backup priority of Server03/HA to 10.

**C.**

- Set the backup preference of HaContoso to Secondary only.
- Set the backup priority of Server02/HA to 10.
- Set the backup priority of Server03/HA to 20.

**D.**

- Set the exclude replica of Server01/HA to true.
- Set the backup priority of Server02/HA to 10.
- Set the backup priority of Server03/HA to 20.

**Answer: B** Reference:

<http://msdn.microsoft.com/en-us/library/ff877884.aspx>

<b>Question No : 27 - (Topic 1)</b>
-------------------------------------

You administer a Microsoft SQL Server 2016 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

**Answer: K**

**Explanation:**

References:

<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>

**Question No : 28 - (Topic 1)**

You administer several Microsoft SQL Server 2016 database servers. Merge replication has been configured for an application that is distributed across offices throughout a wide area network (WAN).

Many of the tables involved in replication use the XML and varchar (max) data types. Occasionally, merge replication fails due to timeout errors.

You need to reduce the occurrence of these timeout errors.

What should you do?

- A.** Set the Merge agent on the problem subscribers to use the slow link agent profile.
- B.** Create a snapshot publication, and reconfigure the problem subscribers to use the snapshot publication.
- C.** Change the Merge agent on the problem subscribers to run continuously.
- D.** Set the Remote Connection Timeout on the Publisher to 0.

**Answer: A**

**Explanation:** Explanation/Reference:

When replication is configured, a set of agent profiles is installed on the Distributor. An agent profile contains a set of parameters that are used each time an agent runs: each agent logs in to the Distributor during its startup process and queries for the parameters in its profile.

For merge subscriptions that use Web synchronization, profiles are downloaded and stored at the Subscriber. If the profile is changed, the profile at the Subscriber is updated the next time the Merge Agent runs. For more information about Web synchronization, see Web Synchronization for Merge Replication.

Replication provides a default profile for each agent and additional predefined profiles for the

Log Reader Agent, Distribution Agent, and Merge Agent. In addition to the profiles provided, you can create profiles suited to your application requirements. An agent profile allows you to change key parameters easily for all agents associated with that profile. For example, if you have 20 Snapshot Agents and need to change the query timeout value (the - QueryTimeout parameter), you can update the profile used by the Snapshot Agents and all agents of that type will begin using the new value automatically the next time they run.

You might also have different profiles for different instances of an agent. For example, a Merge Agent that connects to the Publisher and Distributor over a dialup connection could use a set of parameters that are better suited to the slower communications link by using the slow link profile.

**Question No : 29 DRAG DROP - (Topic 1)**

You administer a Microsoft SQL Server 2016 environment that contains a production SQL Server 2005 instance named SQL2005 and a development SQL Server 2016 instance named SQL2012.

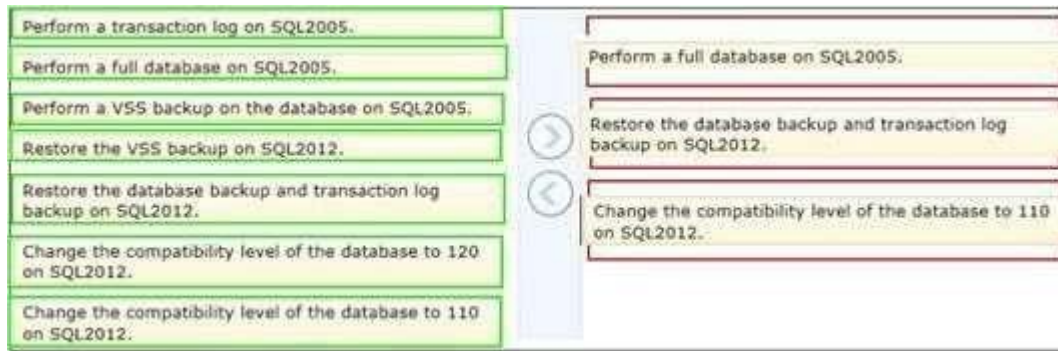
The development team develops a new application that uses the SQL Server 2016 functionality. You are planning to migrate a database from SQL2005 to SQL2012 so that the development team can test their new application.

You need to migrate the database without affecting the production environment.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Perform a transaction log on SQL2005.	
Perform a full database on SQL2005.	
Perform a VSS backup on the database on SQL2005.	
Restore the VSS backup on SQL2012.	
Restore the database backup and transaction log backup on SQL2012.	
Change the compatibility level of the database to 120 on SQL2012.	
Change the compatibility level of the database to 110 on SQL2012.	

**Answer:**



### Question No : 30 - (Topic 1)

You administer a Microsoft SQL Server 2016 database named ContosoDB. The database contains a table named Suppliers and a column named IsActive in the Purchases schema.

You create a new user named ContosoUser in ContosoDB. ContosoUser has no permissions to the Suppliers table.

You need to ensure that ContosoUser can delete rows that are not active from Suppliers. You also need to grant ContosoUser only the minimum required permissions. Which Transact-SQL statement should you use?

- A. GRANT DELETE ON Purchases. Suppliers TO ContosoUser
- B. CREATE PROCEDURE Purchases.PurgeInactiveSuppliers  
WITH EXECUTE AS USER = 'dbo'  
AS  
DELETE FROM Purchases.Suppliers WHERE IsActive = 0  
GO  
GRANT EXECUTE ON Purchases.PurgeInactiveSuppliers TO ContosoUser
- C. GRANT SELECT ON Purchases.Suppliers TO ContosoUser
- D. CREATE PROCEDURE Purchases.PurgeInactiveSuppliers AS  
DELETE FROM Purchases.Suppliers WHERE IsActive = 0  
GO  
GRANT EXECUTE ON Purchases.PurgeInactiveSuppliers TO ContosoUser

**Answer: D**

**Explanation:**

References: <http://msdn.microsoft.com/en-us/library/ms188354.aspx>  
<http://msdn.microsoft.com/en-us/library/ms187926.aspx>

### Question No : 31 - (Topic 1)

You administer a Microsoft SQL Server 2016 database.

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

```
CREATE MASTER KEY ENCRYPTION BY PASSWORD = 'MyPassword!';
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 = 'MyPassword!');

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. 

```
CREATE ASSEMBLY TDE_Assembly
FROM 'd:\TDE_Certificate.cer'
WITH PERMISSION_SET = SAFE;
GO
CREATE CERTIFICATE TDE_Certificate FROM ASSEMBLY TDE_Assembly;
```
- ☐ B. 

```
CREATE CERTIFICATE TDE_Certificate FROM EXECUTABLE FILE = 'd:\TDE_Certificate.cer'
```
- ☐ C. 

```
CREATE CERTIFICATE TDE_Certificate FROM FILE = 'd:\TDE_Certificate.cer'
WITH PRIVATE KEY (FILE = 'd:\TDE_Certificate.key', DECRYPTION BY PASSWORD = 'MyPassword!');
```
- ☐ D. 

```
DECLARE @startdate date
SET @startdate = GETDATE()
CREATE CERTIFICATE TDE_Certificate FROM FILE = 'd:\TDE_Certificate.cer'
WITH START_DATE = @startdate;
```

- A. Option A
- B. Option B
- C. Option C
- D. Option D

**Answer: C**

**Question No : 32 DRAG DROP - (Topic 1)**

You administer several Microsoft SQL Server 2016 servers. Your company has a number of offices across the world connected by using a wide area network (WAN).

Connections between offices vary significantly in both bandwidth and reliability.

You need to identify the correct replication method for each scenario.

What should you do? (To answer, drag the appropriate replication method or methods to the correct location or locations in the answer area. Each replication method may be used once, more than once, or not at all.)

Replication Method	Scenario	
Transactional Replication	Multiple databases on the same low-latency subnet must allow applications to write changes locally, and these changes must be replicated to all related databases.	
Peer-to-Peer Replication	An order summary table is repopulated once a week. This table must be replicated to all databases.	
Snapshot Replication	Field offices using unreliable connections keep a local copy of the product catalog and process orders locally. These orders must be periodically replicated to all other	
Merge Replication	Information in an order-tracking database must be replicated across a low-latency connection as changes occur to multiple reporting databases.	

**Answer:**

Replication Method	Scenario	
Transactional Replication	Multiple databases on the same low-latency subnet must allow applications to write changes locally, and these changes must be replicated to all related databases.	Peer-to-Peer Replication
Peer-to-Peer Replication	An order summary table is repopulated once a week. This table must be replicated to all databases.	Snapshot Replication
Snapshot Replication	Field offices using unreliable connections keep a local copy of the product catalog and process orders locally. These orders must be periodically replicated to all other	Merge Replication
Merge Replication	Information in an order-tracking database must be replicated across a low-latency connection as changes occur to multiple reporting databases.	Transactional Replication

**Question No : 33 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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 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

**Answer: A**

#### **Question No : 34 DRAG DROP - (Topic 1)**

You administer a Microsoft SQL Server 2016 database.

All database traffic to the SQL Server must be encrypted by using secure socket layer (SSL) certificates or the connection must be refused.

Network administrators have deployed server certificates to the Windows store of all Windows servers on the network from a trusted Certificate Authority. This is the only Certificate Authority allowed to distribute certificates on the network.

You enable the Force Encryption flag for the MSSQLServer protocols, but client computers are unable to connect. They receive the following error message:

"A connection was successfully established with the server, but then an error occurred during the pre-login handshake, (provider: SSL Provider, error: 0 - The certificate chain was issued by an authority that is not trusted.) (Microsoft SQL Server)"

You notice the following entry in the SQL Server log:

"A self-generated certificate was successfully loaded for encryption."

You need to configure SQL Server to encrypt all client traffic across the network.

You also need to ensure that client computers are able to connect to the server by using a trusted certificate.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Restart the SQL Server.		
Leave the certificate blank in the drop-down list on the <b>Certificates</b> tab.		
Choose the new root-level certificate from the drop-down list on the <b>Certificates</b> tab.		
Install Certificate Services on the SQL Server, and create a new root-level certificate.		
From the SQL Configuration Manager on the SQL Server, open the <b>Protocols</b> properties for the SQL instance.		
Choose the server certificate provided by the network administrators from the drop-down list on the <b>Certificates</b> tab.		
From the SQL Configuration Manager on every client computer that will be connecting to SQL Server, open the <b>Protocols</b> properties for the SQL instance.		

**Answer:**

Restart the SQL Server.		From the SQL Configuration Manager on the SQL Server, open the <b>Protocols</b> properties for the SQL instance.
Leave the certificate blank in the drop-down list on the <b>Certificates</b> tab.		Choose the server certificate provided by the network administrators from the drop-down list on the <b>Certificates</b> tab.
Choose the new root-level certificate from the drop-down list on the <b>Certificates</b> tab.		Restart the SQL Server.
Install Certificate Services on the SQL Server, and create a new root-level certificate.		
From the SQL Configuration Manager on the SQL Server, open the <b>Protocols</b> properties for the SQL instance.		
Choose the server certificate provided by the network administrators from the drop-down list on the <b>Certificates</b> tab.		
From the SQL Configuration Manager on every client computer that will be connecting to SQL Server, open the <b>Protocols</b> properties for the SQL instance.		

### Question No : 35 - (Topic 1)

You administer a Microsoft SQL Server 2016 instance that has several SQL Server Agent jobs configured.

When SQL Server Agent jobs fail, the error messages returned by the job steps are truncated.

The following error message is an example of the truncated error message:

"Executed as user CONTOSO\ServiceAccount....0.4035.00 for 64-bit Copyright (C) Microsoft Corp 1984-2011. All rights reserved. Started 63513 PM Error 2012-06-23 183536.87 Code 0XC001000E Source UserImport Description Code 0x00000000 Source Log Import Activity Descript... The package execution failed. .. The step failed. "

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

What should you do?

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

**Answer: D**

#### **Question No : 36 - (Topic 1)**

You administer a Microsoft SQL Server 2016 database that has Trustworthy set to On. You create a stored procedure that returns database-level information from Dynamic Management Views.

You grant User1 access to execute the stored procedure.

You need to ensure that the stored procedure returns the required information when User1 executes the stored procedure. You need to achieve this goal by granting the minimum permissions required.

What should you do? (Each correct answer presents a complete solution. Choose all that apply.)

- A. Create a SQL Server login that has VIEW SERVER STATE permissions. Create an application role and a secured password for the role.
- B. Modify the stored procedure to include the EXECUTE AS OWNER statement.  
Grant VIEW SERVER STATE permissions to the owner of the stored procedure.
- C. Create a SQL Server login that has VIEW SERVER STATE permissions.

Modify the stored procedure to include the EXECUTE AS {newlogin} statement.

**D.** Grant the db\_owner role on the database to User1.

**E.** Grant the sysadmin role on the database to User1.

**Answer: B,C**

**Explanation:**

According to these references, this answer looks correct.

References: <http://msdn.microsoft.com/en-us/library/ms187861.aspx>

[http://msdn.microsoft.com/en-](http://msdn.microsoft.com/en-us/library/ms191291.aspx)

[us/library/ms191291.aspx](http://msdn.microsoft.com/en-us/library/ms191291.aspx)

#### **Question No : 37 - (Topic 1)**

You administer a single server that contains a Microsoft SQL Server 2016 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.

**Answer: B**

#### **Question No : 38 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B**

**Explanation:**

References: <http://msdn.microsoft.com/en-us/library/ms186400.aspx>  
<http://msdn.microsoft.com/en-us/library/ms345408.aspx>

#### **Question No : 39 - (Topic 1)**

You administer a Microsoft SQL Server 2016 database. The database has a table named Customers owned by UserA and another table named Orders owned by UserB. You also have a stored procedure named GetCustomerOrderInfo owned by UserB. GetCustomerOrderInfo selects data from both tables.

You create a new user named UserC.

You need to ensure that UserC can call the GetCustomerOrderInfo stored procedure. You also need to assign only the minimum required permissions to UserC.

Which permission or permissions should you assign to UserC? Choose all that apply.

- A. The Select permission on Customers
- B. The Execute permission on GetCustomerOrderInfo
- C. The Take Ownership permission on Customers
- D. The Control permission on GetCustomerOrderInfo
- E. The Take Ownership permission on Orders
- F. The Select permission on Orders

**Answer: A,B**

**Explanation:**

References: <http://msdn.microsoft.com/en-us/library/ms188676.aspx>

<http://stackoverflow.com/questions/2212044/sql-server-how-to-permission-schemas>

[http://sqlservercentral.com/blogs/steve\\_jones/2012/03/14/ownership-chains-in-sqlserver](http://sqlservercentral.com/blogs/steve_jones/2012/03/14/ownership-chains-in-sqlserver)

**Question No : 40 - (Topic 1)**

You administer all the deployments of Microsoft SQL Server 2016 in your company.

A database contains a large product catalog that is updated periodically.

You need to be able to send the entire product catalog to all branch offices on a monthly basis.

Which configuration should you use?

**A.**

- 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

**B.**

- SQL Server that includes an application database configured to perform transactional replication

**C.**

- 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 D.
- Two servers configured in a Windows Failover Cluster in the same data center • SQL Server configured as a clustered instance

**E.**

- SQL Server that includes an application database configured to perform snapshot replication

**F.**

- Two servers configured in different data centers
- SQL Server Availability Group configured in Synchronous-Commit Availability Mode • One server configured as an Active Secondary **G.**

- Two servers configured on the same subnet
- SQL Server Availability Group configured in Synchronous-Commit Availability Mode **G**.
- Two servers configured in different data centers
- SQL Server Availability Group configured in Asynchronous-Commit Availability Mode

**Answer: E**

**Question No : 41 - (Topic 1)**

You administer a Microsoft SQL Server 2016 instance.

You need to stop a blocking process that has an SPID of 64 without stopping other processes

What should you do?

- A.** Execute the following Transact-SQL statement:  
EXECUTE sp\_KillSPID 64
- B.** Restart the SQL Server service.
- C.** Execute the following Transact-SQL statement: KILL 64
- D.** Execute the following Transact-SQL statement:  
ALTER SESSION KILL '64'

**Answer: C**

Reference:

<http://msdn.microsoft.com/en-us/library/ms173730.aspx>

**Question No : 42 DRAG DROP - (Topic 1)**

You administer a single Microsoft SQL Server instance on a two-node failover cluster that has nodes named Node A and Node B. The instance is currently running on Node A.

You want to patch both Node A and Node B by using the most recent SQL Server Service Pack.

You need to ensure that the following requirements are met:

- ☞ Both nodes receive the update.
- ☞ Downtime is minimized.
- ☞ No data is lost.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Pause Node A.	<div>➤</div> <div>➤</div>	
Pause Node B.		
Failover from Node A to Node B.		
Start the SQL Server service on both nodes.		
Install the service pack on Node A.		
Install the service pack on Node B.		
Stop the SQL Server services on both nodes.		

**Answer:**

Pause Node A.	<div>➤</div> <div>➤</div>	Install the service pack on Node B.
Pause Node B.		
Failover from Node A to Node B.		Failover from Node A to Node B.
Start the SQL Server service on both nodes.		
Install the service pack on Node A.		Install the service pack on Node A.
Install the service pack on Node B.		
Stop the SQL Server services on both nodes.		

**Question No : 43 DRAG DROP - (Topic 1)**

You administer a Microsoft SQL Server 2016 database.

You use an OrderDetail table that has the following definition:

```
CREATE TABLE [dbo].[OrderDetail]
(
    [SalesOrderID] [int] NOT NULL,
    [SalesOrderDetailID] [int] IDENTITY(1,1) NOT NULL,
    [CarrierTrackingNumber] [nvarchar](25) NULL,
    [OrderQty] [smallint] NOT NULL,
    [ProductID] [int] NOT NULL,
    [SpecialOfferID] [int] NULL,
    [UnitPrice] [money] NOT NULL);
```

You need to create a non-clustered index on the SalesOrderID column in the OrderDetail table to include only rows that contain a value in the SpecialOfferID column.

Which four Transact-SQL statements should you use? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

WHERE	
FILTER ON	
SpecialOfferID IS NOT NULL;	
ON dbo.OrderDetail (SalesOrderID)	
ON dbo.OrderDetail (SalesOrderID) AS FILTERED_INDEX	
CREATE NONCLUSTERED INDEX FIdx_SpecialOfferID	
CREATE NONCLUSTERED FILTERED INDEX FIdx_SpecialOfferID	

**Answer:**

WHERE		CREATE NONCLUSTERED INDEX FIdx_SpecialOfferID
FILTER ON		
SpecialOfferID IS NOT NULL;		
ON dbo.OrderDetail (SalesOrderID)		ON dbo.OrderDetail (SalesOrderID)
ON dbo.OrderDetail (SalesOrderID) AS FILTERED_INDEX		
CREATE NONCLUSTERED INDEX FIdx_SpecialOfferID		WHERE
CREATE NONCLUSTERED FILTERED INDEX FIdx_SpecialOfferID		SpecialOfferID IS NOT NULL;

**Explanation:**

<b>FILTER ON</b>	<b>CREATE NONCLUSTERED INDEX FIndx_SpecialOfferID</b>
	ON dbo.OrderDetail (SalesOrderID)
	<b>WHERE</b>
ON dbo.OrderDetail (SalesOrderID) AS FILTERED_INDEX	SpecialOfferID IS NOT NULL;
<b>CREATE NONCLUSTERED FILTERED INDEX FIndx_SpecialOfferID</b>	

According to these references, this answer looks correct.

References: <http://msdn.microsoft.com/en-us/library/ms188783.aspx>  
<http://msdn.microsoft.com/en-us/library/ms189280.aspx>

#### Question No : 44 - (Topic 1)

You administer a Microsoft SQL Server 2016 server that has SQL Server Integration Services (SSIS) installed.

You plan to deploy new SSIS packages to the server. The SSIS packages use the Project Deployment Model together with parameters and Integration Services environment variables.

You need to configure the SQL Server environment to support these packages.

What should you do?

- A. Create SSIS configuration files for the packages.
- B. Create an Integration Services catalog.
- C. Install Data Quality Services.
- D. Install Master Data services.

**Answer: B**

**Question No : 45 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: D**

**Question No : 46 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: A**

**Explanation:**

References: [http://www.mssqltips.com/sqlservertip/2130/finding-sql-server-deadlocksusing-trace-flag-](http://www.mssqltips.com/sqlservertip/2130/finding-sql-server-deadlocksusing-trace-flag-1222/)

[1222/ http://msdn.microsoft.com/enus/library/ms188396.aspx](http://msdn.microsoft.com/enus/library/ms188396.aspx)

**Question No : 47 - (Topic 1)**

You administer a Microsoft SQL Server 2016 database that has multiple tables in the Sales schema.

Some users must be prevented from deleting records in any of the tables in the Sales schema.

You need to manage users who are prevented from deleting records in the Sales schema. You need to achieve this goal by using the minimum amount of administrative effort.

What should you do?

- A.** Create a custom database role that includes the users. Deny Delete permissions on the Sales schema for the custom database role.
- B.** Include the Sales schema as an owned schema for the db\_denydatawriter role. Add the users to the db\_denydatawriter role.
- C.** Deny Delete permissions on each table in the Sales schema for each user.
- D.** Create a custom database role that includes the users. Deny Delete permissions on each table in the Sales schema for the custom database role.

**Answer: A**

**Question No : 48 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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

**Answer: D** Reference:

<http://msdn.microsoft.com/en-us/library/ms189629.aspx>

#### **Question No : 49 - (Topic 1)**

You administer a Microsoft SQL Server 2016 server that hosts a transactional database and a reporting database. The transactional database is updated through a web application and is operational throughout the day. The reporting database is only updated from the transactional database.

The recovery model and backup schedule are configured as shown in the following table:

Database	Description
Transactional database	Recovery model: <ul style="list-style-type: none"> <li>Full</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: midnight, daily</li> <li>Differential database backup: on the hour, every two hours starting at 02:00 hours except at 00:00 hours</li> <li>Log backup: every half hour, except at the times of full and differential backups</li> </ul>
Reporting database	Recovery model: <ul style="list-style-type: none"> <li>Simple</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: 01:00 hours daily</li> <li>Differential database backup: 13:00 hours daily</li> </ul> Data updates: <ul style="list-style-type: none"> <li>Changes in data are updated from the transactional database to the reporting database at 00:30 hours and at 12:30 hours</li> <li>The update takes 15 minutes</li> </ul>

At 14:00 hours, you discover that pages 71, 520, and 713 on one of the database files are corrupted on the reporting database.

You also need to ensure that data loss is minimal.

What should you do?

- A. Perform a partial restore.
- B. Restore the latest full backup, and restore the latest differential backup. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- C. Restore the latest full backup.
- D. Restore the latest full backup, and restore the latest differential backup. Then, restore the latest log backup.
- E. Perform a page restore.
- F. Restore the latest full backup. Then, restore each differential backup taken before the time of failure from the most recent full backup.
- G. Perform a point-in-time restore.
- H. Restore the latest full backup. Then, restore the latest differential backup.

**Answer: H**

**Explanation:**

Restores a file or filegroup in a multi-filegroup database. Note that under the simple recovery model, the file must belong to a read-only filegroup. After a full file restore, a differential file backup can be restored.

**Page restore**

Restores individual pages. Page restore is available only under the full and bulk-logged recovery models.

**Piecemeal restore**

Restores the database in stages, beginning with the primary filegroup and one or more secondary filegroups. A piecemeal restore begins with a RESTORE DATABASE using the PARTIAL option and specifying one or more secondary filegroups to be restored.

**Question No : 50 - (Topic 1)**

You administer a Microsoft SQL Server 2016 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.

**Answer: A** Reference:

<http://msdn.microsoft.com/en->

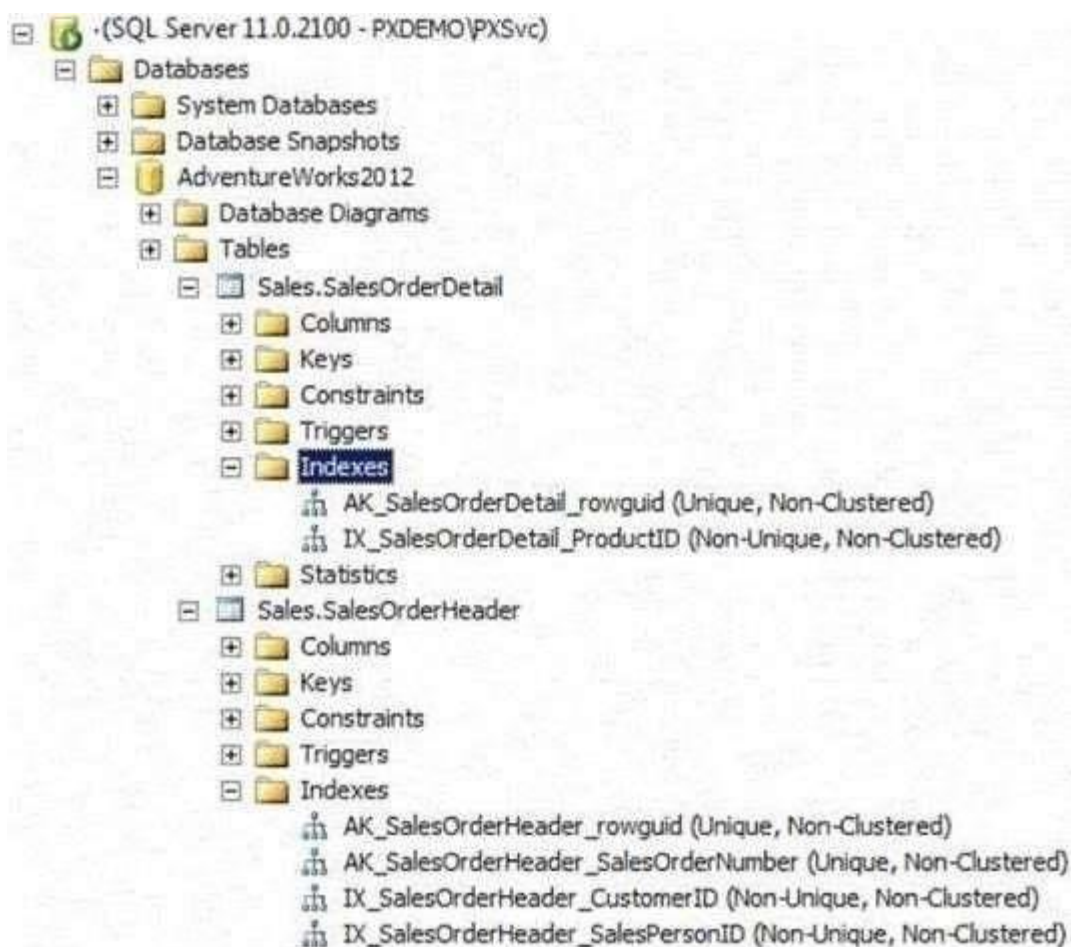
us/library/bb630282.a  
spx

Event sqlserver.error\_reported: This event gets fired every time that an error happens in the server

## Topic 2, Volume B

### Question No : 51 - (Topic 2)

You use a Microsoft SQL Server 2016 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);
```

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 SalesOrderID on both tables.

**Answer: D** Reference:

<http://msdn.microsoft.com/en-us/library/ms187348.aspx>

#### **Question No : 52 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

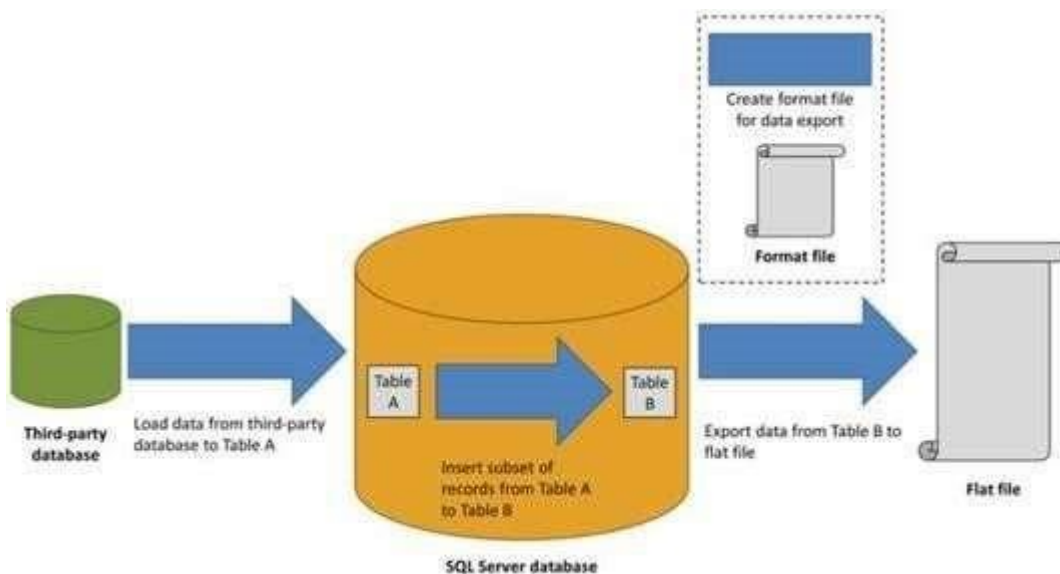
**Answer: F**

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

**Question No : 53 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 database. The database contains two tables named Table A and Table B.

You perform an import and export operation by using the following steps in sequence, as shown in the exhibit. (Click the Exhibit button.)



Load data from a third-party database to Table A. Insert a subset of records from Table A to Table B. Export the data from Table B to a flat file.

You also create a format file for the data export.

You need to choose the correct command or tool for each task. You need to ensure that each task is performed efficiently.

Which command(s) or tool(s) should you use? (To answer, drag the appropriate command(s) or tool(s) to their corresponding task or tasks in the answer area. Answer choices may be used once, more than once, or not at all. Answer targets may be used once or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.)

Command/Tool	Task	
INSERT...SELECT	Load data from third-party database to Table A	
INSERT...SELECT... OPENROWSET	Insert subset of records from Table A to Table B	
BCP	Export data from Table B to flat file	
Extended Events	Create format file for data export	
SELECT...INTO		

Answer:

Command/Tool	Task	
INSERT...SELECT	Load data from third-party database to Table A	INSERT...SELECT... OPENROWSET
INSERT...SELECT... OPENROWSET	Insert subset of records from Table A to Table B	INSERT...SELECT
BCP	Export data from Table B to flat file	BCP
Extended Events	Create format file for data export	BCP
SELECT...INTO		

**Question No : 54 - (Topic 2)**

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\_droprolemember '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

**Answer: D**

**Explanation:**

References: <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 No : 55 - (Topic 2)**

You administer a Microsoft SQL Server 2016.

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)

**Answer: A**

**Explanation:**

References: <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/ms187730.aspx>

#### **Question No : 56 HOTSPOT - (Topic 2)**

You administer two Microsoft SQL Server 2016 databases named Contoso and ContosoWarehouse.

You plan to replicate tables from the Contoso database to the ContosoWarehouse database.

Indexes will be added to the tables in ContosoWarehouse to improve the performance of reports.

You need to ensure that the following requirements are met:

- ☞ Indexes are not modified when the subscriptions are reinitialized.
- ☞ Only the clustered index from Contoso will be replicated.
- ☞ Minimal transaction log activity during the reinitialization.

What should you do? Choose the correct option(s).

**Properties for All Table Articles**

Article name: <Default is based on table name>

**Properties:**

- Copy Objects and Settings to Subscriber**
  - Copy foreign key constraints: **False**
  - Copy check constraints: **False**
  - Copy clustered index: **True**
  - Copy nonclustered indexes: **True**
  - Copy default value specifications: **True**
  - Copy user triggers: **False**
  - Copy extended properties: **False**
  - Copy collation: **True**
  - Copy INSERT, UPDATE and DELETE: **True**
  - Copy unique key constraints: **True**
  - Copy file group associations: **False**
  - Copy table partitioning schemes: **False**
  - Copy index partitioning schemes: **False**
  - Copy user-defined statistics: **False**
  - Copy default bindings: **False**
  - Copy rule bindings: **False**
  - Copy full text indexes: **False**
  - Copy XML XSD: **True**
  - Copy XML indexes: **False**
  - Copy XML indexes: **True**
  - Copy permissions: **False**
  - Copy spatial indexes: **False**
  - Copy filtered indexes: **False**
  - Copy data compression attribute: **True**
  - Copy sparse column attribute: **False**
- Destination Object**
  - Destination object name: <Default is based on table name>
  - Destination object owner: <source Table owner>
  - Action if name is in use: **Drop existing object and create a new one**
  - Convert data types: **Delete data. If article has a row filter, delete only data that matches the filter**
  - Convert TIMESTAMP to BINARY: **Truncate all data in the existing object**
  - Create schemas at Subscriber: **False**
  - Convert XML to NTEXT: **False**
  - Convert MAX data types to NTEXT: **False**
  - Convert new datetime to NVARCHAR: **False**
- Description**

The description of the article.

OK Cancel Help

**Answer:**

**Properties for All Table Articles**

Article name: <Default is based on table name>

Properties:

**Copy Objects and Settings to Subscriber**

Copy foreign key constraints	False
Copy check constraints	False
Copy clustered index	True
Copy nonclustered indexes	
Copy default value specification	True
Copy user triggers	False
Copy extended properties	False
Copy collation	True
Copy INSERT, UPDATE and DELETE	True
Copy unique key constraints	True
Copy file group associations	False
Copy table partitioning schemes	False
Copy index partitioning schemes	False
Copy user-defined statistics	False
Copy default bindings	False
Copy rule bindings	False
Copy full text indexes	False
Copy XML XSD	True
Copy XML indexes	False
Copy XML indexes	True
Copy permissions	False
Copy spatial indexes	
Copy filtered indexes	
Copy data compression attribute	True
Copy sparse column attribute	False

**Destination Object**

Destination object name	<Default is based on table name>
Destination object owner	<source Table owner>
Action if name is in use	
Convert data types	Drop existing object and create a new one
Convert TIMESTAMP to BINARY	Delete data. If article has a row filter, delete only data that matches the filter
Create schemas at Subscriber	Truncate all data in the existing object
Convert XML to NTEXT	False
Convert MAX data types to NTEXT	False
Convert new datetime to NVARCHAR	False

**Description**  
The description of the article.

OK Cancel Help

### Question No : 57 - (Topic 2)

You administer a Microsoft SQL Server 2016 environment. One of the SQL Server 2016 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.

**Answer: B,D**

#### **Question No : 58 - (Topic 2)**

You develop a database for a travel application. You need to design tables and other database objects. You create a view that displays the dates and times of the airline schedules on a report.

You need to display dates and times in several international formats.

What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Answer: C**

Reference: <http://msdn.microsoft.com/en-us/library/hh213505.aspx>

**Question No : 59 - (Topic 2)**

You have been hired as a Database Consultant by ABC.com to design a SQL Server 2016 database solution.

You are tasked with designing a scale-out and high-availability SQL Server 2016 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 2016 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 2016 Cluster.
- C. You should include a primary SQL Server 2016 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.

**Answer: C**

**Question No : 60 - (Topic 2)**

Which of the following recovery models must be in use for point-in-time recovery to be possible for an SQL Server 2016 database?

- A. Differential
- B. Full
- C. Simple

D. ArchiveLog

**Answer: B**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms189275%28v=sql.110%29.aspx>

**Question No : 61 - (Topic 2)**

Which of the following Microsoft SQL Server 2016 components is responsible for executing scheduled administrative tasks?

- A. SQL Server Instance
- B. SQL Server Jobs File
- C. SQL Server Agent
- D. SQL Server SSIS

**Answer: C**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms189237%28v=sql.110%29.aspx>

**Question No : 62 - (Topic 2)**

You are developing a database application by using Microsoft SQL Server 2016. You have a query that runs slower than expected.

You need to capture execution plans that will include detailed information on missing indexes recommended by the query optimizer.

What should you do?

- A. Add a HASH hint to the query.
- B. Add a LOOP hint to the query.
- C. Add a FORCESEEK hint to the query.

- D.** Add an INCLUDE clause to the index.
- E.** Add a FORCESCAN hint to the Attach query.
- F.** Add a columnstore index to cover the query.
- G.** Enable the optimize for ad hoc workloads option.
- H.** Cover the unique clustered index with a columnstore index.
- I.** Include a SET FORCEPLAN ON statement before you run the query.
- J.** Include a SET STATISTICS PROFILE ON statement before you run the query.
- K.** Include a SET STATISTICS SHOWPLAN\_XML ON statement before you run the query.
- L.** Include a SET TRANSACTION ISOLATION LEVEL REPEATABLE READ statement before you run the query.
- M.** Include a SET TRANSACTION ISOLATION LEVEL SNAPSHOT statement before you run the query.
- N.** Include a SET TRANSACTION ISOLATION LEVEL SERIALIZABLE statement before you run the query.

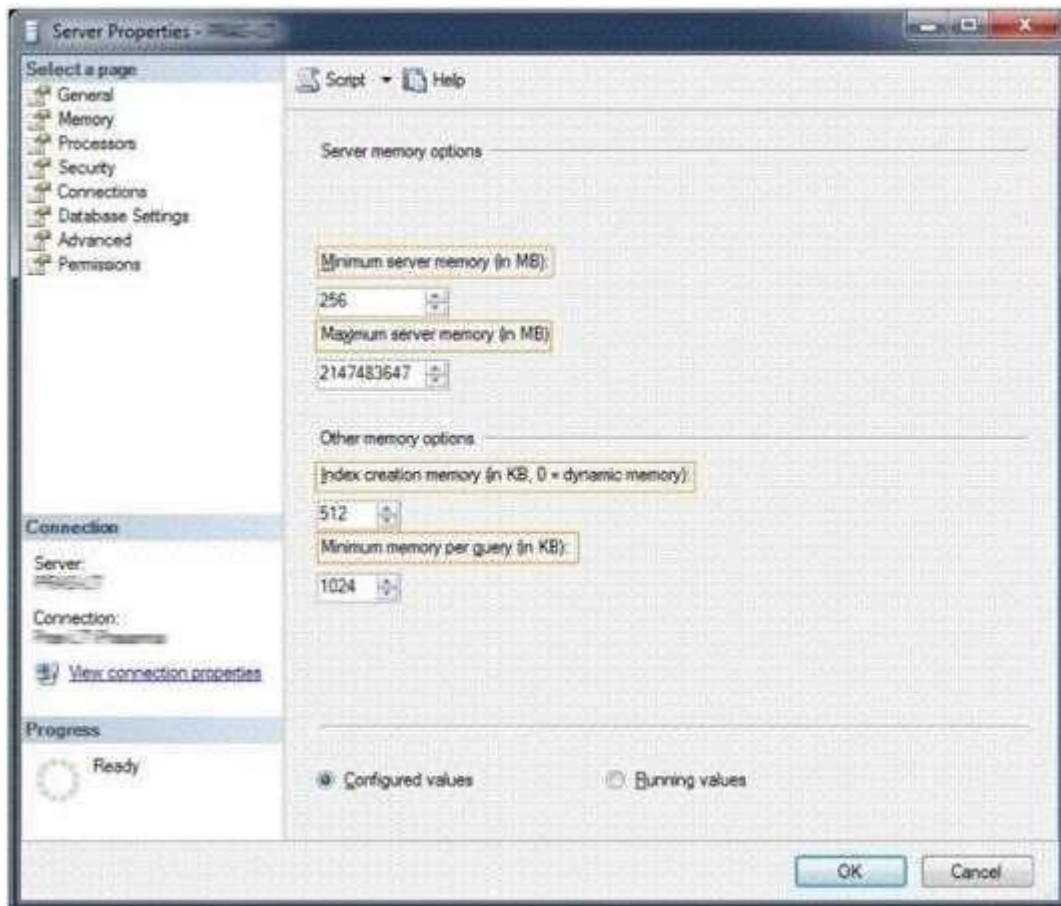
**Answer: K**

**Question No : 63 HOTSPOT - (Topic 2)**

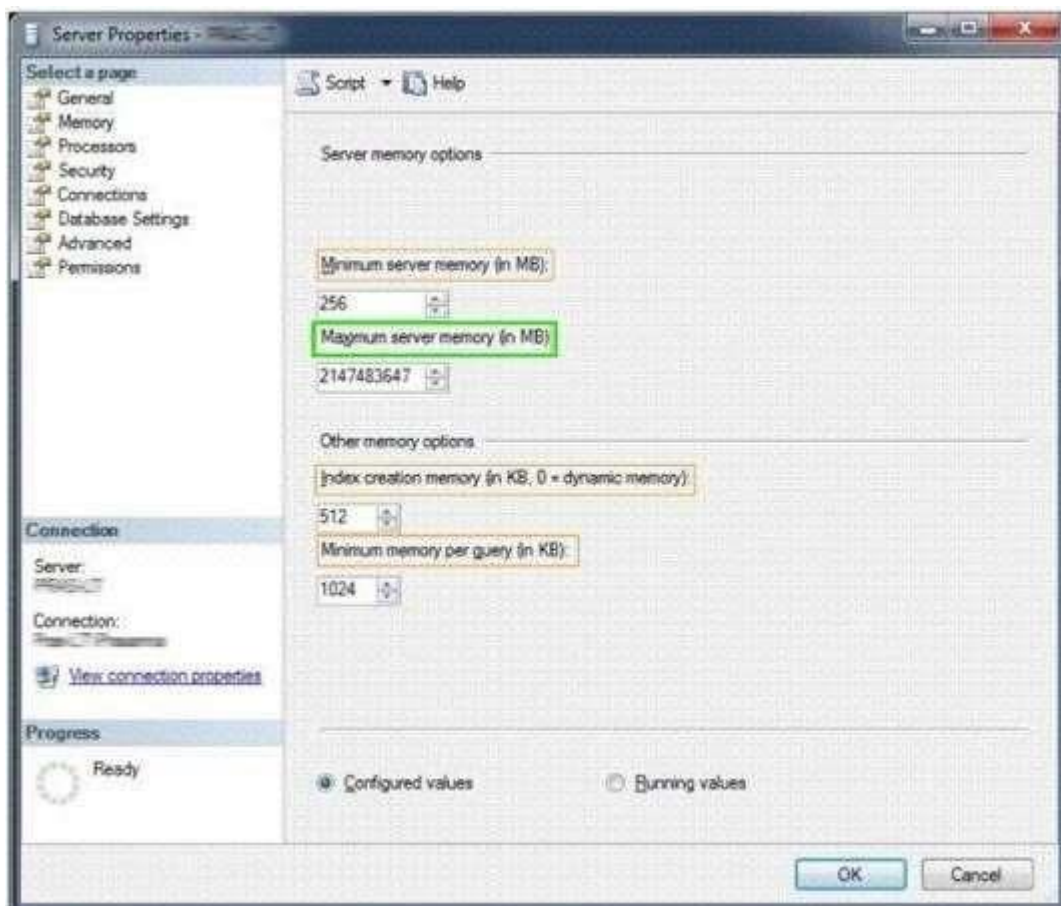
You administer a Microsoft SQL Server 2016 database instance. Other applications run on the server. Some of the applications are throwing errors because of insufficient memory.

You need to ensure that the other applications have sufficient memory.

Which setting should you configure?



Answer:



**Question No : 64 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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 permissions.

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

What should you use?

- A. A notification
- B. A schedule
- C. A job category
- D. A proxy

**Answer: D**

**Question No : 65 - (Topic 2)**

You want to simulate read, write, checkpoint, backup, sort, and read-ahead activities for your organization's SQL Server 2016 deployment.

Which of the following tools would you use to accomplish this goal?

- A. SQLIO
- B. SQLIOSim
- C. SQLIOStress
- D. chkdsk

**Answer: B**

**Question No : 66 - (Topic 2)**

Which of the following is NOT a hardware requirement for SQL Server 2016?

- A. 6GB of hard drive space
- B. 1GB of memory
- C. 1GHZ CPU speed
- D. a graphics card with 2GB video memory

**Answer: D**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms143506%28v=sql.110%29.aspx>

### **Question No : 67 - (Topic 2)**

You administer all the deployments of Microsoft SQL Server 2016 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

**Answer: H**

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

### Question No : 68 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 instance that contains a database of confidential data.

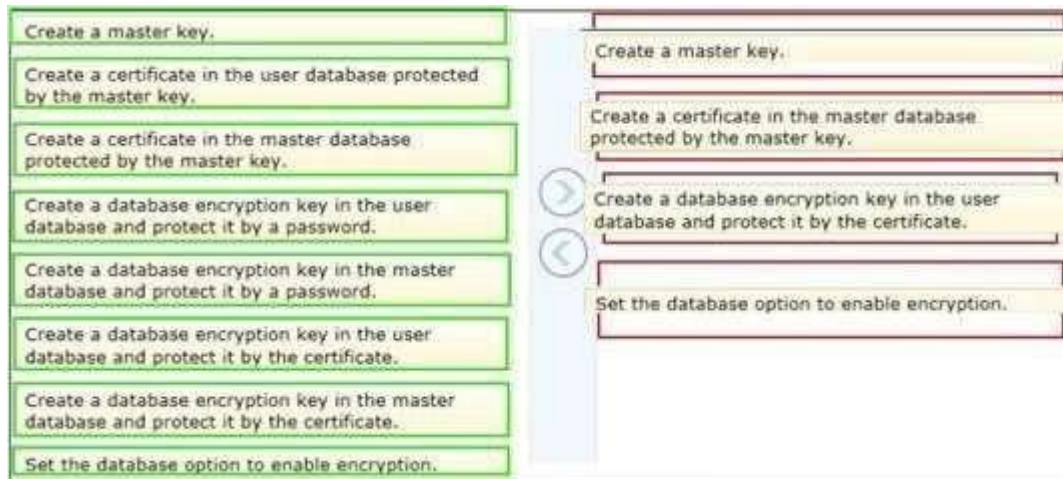
You need to encrypt the database files at the page level. You also need to encrypt the transaction log files.

Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

The screenshot shows a drag-and-drop interface with a list of actions on the left and a central area with arrows for reordering. The actions are:

- Create a master key.
- Create a certificate in the user database protected by the master key.
- Create a certificate in the master database protected by the master key.
- Create a database encryption key in the user database and protect it by a password.
- Create a database encryption key in the master database and protect it by a password.
- Create a database encryption key in the user database and protect it by the certificate.
- Create a database encryption key in the master database and protect it by the certificate.
- Set the database option to enable encryption.

**Answer:**



### Explanation:



References: <http://msdn.microsoft.com/en-us/library/bb510663.aspx>  
<http://msdn.microsoft.com/en-us/library/bb934049.aspx>

### Question No : 69 - (Topic 2)

Which of the following is NOT a potential Cluster resource when configuring clustering in SQL Server 2016?

- A. SQL Server Database Engine Service
- B. SQL Server Agent Service
- C. SQL Server Table Service
- D. All of the above

**Answer: D**

**Question No : 70 - (Topic 2)**

You administer a SQL Server 2016 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

**Answer: A**

**Question No : 71 - (Topic 2)**

You are implementing a SQL Server 2016 four-node failover cluster.

You need to choose a quorum configuration which configuration should you use ?

- A. Distributed file system (DFS)
- B. Cluster Shared Volume (CSV)
- C. Node and Disk Majority
- D. Node Majority

**Answer: D**

**Explanation:** <https://technet.microsoft.com/en-us/library/cc731739.aspx>

**Question No : 72 - (Topic 2)**

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.

**Answer: B**

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

**Question No : 73 - (Topic 2)**

If you are required to move an SQL 2012 database from one server to another, which of the following will do this at the database level?

- A. You just have to mirror the database.
- B. Detach the database, move the database files, and attach the database on the new server.
- C. Use the SQL Server Move Wizard to define the old and new server as well as the scheduled move time.
- D. The database must be created on the new machine and then the data moved with Export/Import.

**Answer: B**

**Explanation:** References:

<https://msdn.microsoft.com/enus/library/ms187858%28v=sql.110%29.aspx>

**Question No : 74 - (Topic 2)**

Which of the following DBCC commands can you use to check the physical and logical integrity of an SQL Server 2016 database?

- A. CVU
- B. VERIFYINTEGRITY
- C. CHECKINTEGRITY
- D. CHECKDB

**Answer: D**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms176064%28v=sql.110%29.aspx>

**Question No : 75 - (Topic 2)**

You administer a Microsoft SQL Server 2016 database that includes a table named dbo.Log. This table contains millions of records about user activity in an application.

Records in dbo.Log 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 dbo.Log without requiring any changes to the applications that utilize dbo.Log.

Which type of solution should you use?

- A. Extended events
- B. Columnstore index
- C. Partitioned tables
- D. Read committed snapshot

**Answer: C**

**Question No : 76 - (Topic 2)**

Which of the following features can you install if you are installing SQL Server 2016 Enterprise edition on a computer running Windows Server 2008 R2 SP1 Enterprise edition in the Server Core configuration? (Choose all that apply.)

- A. Database Engine Services
- B. SQL Server Replication
- C. Analysis Services
- D. Reporting Services

**Answer: A,B,C**

**Question No : 77 - (Topic 2)**

Every SQL Server 2016 database must have a datafile and which of the following file types associated with it?

- A. log file
- B. index file
- C. transaction log file
- D. instance file

**Answer: C**

**Question No : 78 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 instance.

An application executes a large volume of dynamic queries.

You need to reduce the amount of memory used for cached query plans.

What should you do? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

EXEC sp_configure 'ad hoc distributed queries', 1
EXEC sp_configure 'optimize for ad hoc workloads', 1
EXEC sp_configure 'show advanced options', 1; RECONFIGURE
EXEC sp_updatestats
EXEC sp_configure 'recovery interval', 75
RECONFIGURE
DBCC DROPCLEANSBUFFERS

**Answer:**

EXEC sp_configure 'ad hoc distributed queries', 1	EXEC sp_configure 'show advanced options', 1; RECONFIGURE
EXEC sp_configure 'optimize for ad hoc workloads', 1	EXEC sp_configure 'optimize for ad hoc workloads', 1
EXEC sp_configure 'show advanced options', 1; RECONFIGURE	
EXEC sp_updatestats	RECONFIGURE
EXEC sp_configure 'recovery interval', 75	
RECONFIGURE	
DBCC DROPCLEANSBUFFERS	

**Explanation:**

Box 1:

```
EXEC sp_configure 'show advanced options', 1;  
RECONFIGURE
```

Box 2:

```
EXEC sp_configure 'optimize for ad hoc  
workloads', 1
```

Box 3:

RECONFIGURE

Note:

\* SQL SERVER – 2008 – Optimize for Ad hoc Workloads – Advance PerformanceOptimization

Every batch (T-SQL, SP etc) when ran creates execution plan which is stored in system for re-use. Due to this reason a large number of query plans are stored in system. However, there are plenty of plans which are only used once and have never re-used again. One time ran batch plans wastes memory and resources.

\* Let us now enable the option of optimizing ad hoc workload. This feature is available in all the versions of SQL Server 2008.

```
sp_CONFIGURE 'show advanced options',1
RECONFIGURE
GO
```

```
sp_CONFIGURE 'optimize for ad hoc workloads',1
RECONFIGURE
GO
```

SQL Server 2008 has feature of optimizing ad hoc workloads.

### Question No : 79 - (Topic 2)

You work as the Senior Database Administrator (DBA) at ABC.com. The company has a main office and 10 branch offices. Each branch office contains a single database server running Microsoft SQL Server 2016. The main office has multiple clustered servers running Microsoft SQL Server 2016.

Your role includes the management of the entire Microsoft SQL Server 2016 infrastructure.

The company runs a custom application that stores data in a large Microsoft SQL Server 2016 database.

The primary database is hosted in the main office. Each branch office SQL Server hosts a copy of the database.

You need to configure a solution that will replicate the entire primary database from the main office SQL Server every weekend.

What should you include in your solution?

- A. Transactional Replication
- B. Log Shipping
- C. Snapshot Replication
- D. SQL Server Availability Group

**Answer: C**

**Question No : 80 - (Topic 2)**

Which of the following SQL Server 2016 features generates numeric values at a defined interval and order?

- A. sequence
- B. number table
- C. index
- D. bigint

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ff878091%28v=sql.110%29.aspx>

**Question No : 81 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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:

Type	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.

**Answer: C**

**Question No : 82 - (Topic 2)**

You have an index called Employee\_IDX on the table Employees. Which of the following will rebuild this index online?

- A. ALTER INDEX Employee\_IDX ON Employees REBUILD WITH (ONLINE = ON);
- B. CREATE INDEX Employee\_IDX ON Employees REBUILD WITH (ONLINE = ON);
- C. REBUILD ONLINE INDEX Employee\_IDX ON Employees;
- D. ALTER INDEX REBUILD ONLINE Employee\_IDX;

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms177442%28v=sql.110%29.aspx>

**Question No : 83 - (Topic 2)**

You use Microsoft SQL Server 2016 to develop a database application. You create a stored procedure named dbo.ModifyData that can modify rows.

You need to ensure that when the transaction fails, dbo.ModifyData meets the following requirements:

☞ Does not return an error ☞

Closes all opened transactions

Which Transact-SQL statement should you use?

- A. BEGIN TRANSACTION BEGIN TRY

```

EXEC dbo.ModifyData
COMMIT TRANSACTION
END TRY
BEGIN CATCH
IF @@ TRANCOUNT = 0
ROLLBACK TRANSACTION;
END CATCH
B. BEGIN TRANSACTION
BEGIN TRY
EXEC dbo.ModifyData
COMMIT TRANSACTION
END TRY
BEGIN CATCH
IF @@ERROR != 0
ROLLBACK TRANSACTION;
THROW;
END CATCH
C. BEGIN TRANSACTION BEGIN TRY
EXEC dbo.ModifyData
COMMIT TRANSACTION
END TRY
BEGIN CATCH
IF @@TRANCOUNT = 0
ROLLBACK TRANSACTION;
THROW;
END CATCH
D. BEGIN TRANSACTION
BEGIN TRY
EXEC dbo.ModifyData
COMMIT TRANSACTION
END TRY
BEGIN CATCH
IF @@ERROR != 0
ROLLBACK TRANSACTION;
END CATCH

```

**Answer: D**

<b>Question No : 84 - (Topic 2)</b>
-------------------------------------

You administer a Microsoft SQL Server 2016 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

**Answer: B**

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

#### **Question No : 85 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 server that has a database named Contoso. The Contoso database has a table named ProductPrices in a schema named Sales.

You need to create a script that writes audit events into the application log whenever data in the ProductPrices table is updated.

Which four Transact-SQL statements should you use? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

<pre>CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (UPDATE ON Sales.ProductPrices BY dbo)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)</pre>	<div>➤</div> <div>➤</div>
Use Master	
<pre>CREATE SERVER AUDIT C_Audit TO FILE (FILEPATH = 'ApplicationLog')</pre>	
<pre>ALTER SERVER AUDIT C_Audit WITH (STATE = ON)</pre>	
<pre>CREATE SERVER AUDIT C_Audit TO APPLICATION_LOG</pre>	
<pre>ALTER SERVER AUDIT C_Audit WITH (STATE = ON)</pre>	
Use Contoso	
<pre>CREATE SERVER AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (SCHEMA_OBJECT_ACCESS_GROUP)</pre>	
<pre>ALTER SERVER AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)</pre>	

Answer:

<pre>CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (UPDATE ON Sales.ProductPrices BY dbo)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)</pre>	<div>➤</div> <div>➤</div>	Use Master
Use Master		<pre>CREATE SERVER AUDIT C_Audit TO APPLICATION_LOG</pre>
<pre>CREATE SERVER AUDIT C_Audit TO FILE (FILEPATH = 'ApplicationLog')</pre>		<pre>ALTER SERVER AUDIT C_Audit WITH (STATE = ON)</pre>
<pre>ALTER SERVER AUDIT C_Audit WITH (STATE = ON)</pre>		Use Contoso
<pre>CREATE SERVER AUDIT C_Audit TO APPLICATION_LOG</pre>		<pre>CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (UPDATE ON Sales.ProductPrices BY dbo)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)</pre>
<pre>ALTER SERVER AUDIT C_Audit WITH (STATE = ON)</pre>		
Use Contoso		
<pre>CREATE SERVER AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (SCHEMA_OBJECT_ACCESS_GROUP)</pre>		
<pre>ALTER SERVER AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)</pre>		

Explanation:

```
USE Master
CREATE SERVER AUDIT C_Audit
TO APPLICATION_LOG

ALTER SERVER AUDIT C_Audit
WITH (STATE = ON)

USE Contoso
CREATE DATABASE AUDIT
SPECIFICATION C_AuditSpec
FOR SERVER AUDIT C_Audit
ADD (UPDATE ON
Sales.ProductPrices BY dbo)

ALTER DATABASE AUDIT
SPECIFICATION C_AuditSpec WITH
(STATE=ON)
```

References:

<http://msdn.microsoft.com/en-us/library/cc280386.aspx> <http://msdn.microsoft.com/en-us/library/cc280448.aspx> <http://msdn.microsoft.com/en-us/library/cc280404.aspx>

**Question No : 86 - (Topic 2)**

You are a database administrator for a Microsoft SQL Server 2016 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 AlwaysOnAvailability 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')
```

**Answer: C**

**Question No : 87 HOTSPOT - (Topic 2)**

You administer a Microsoft SQL Server 2016 database instance.

The instance is running on a server with the following configuration:

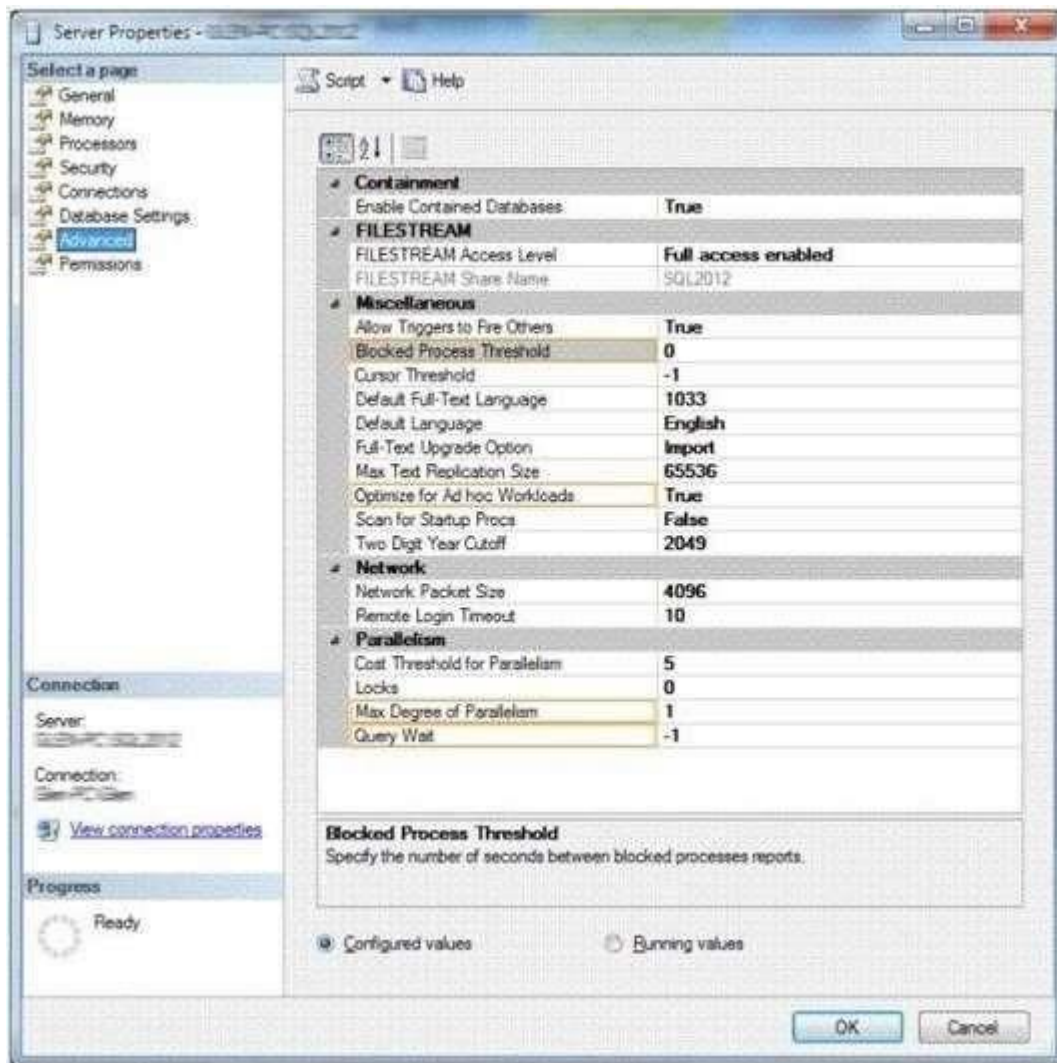
- ☞ 1TB RAM
- ☞ SAN storage for database and log files
- ☞ 4 quad-core processors
- ☞ 64-Bit Windows 2008R2 operating system

This instance hosts a database with large partitioned tables. Users report that complex queries are taking a long time to complete.

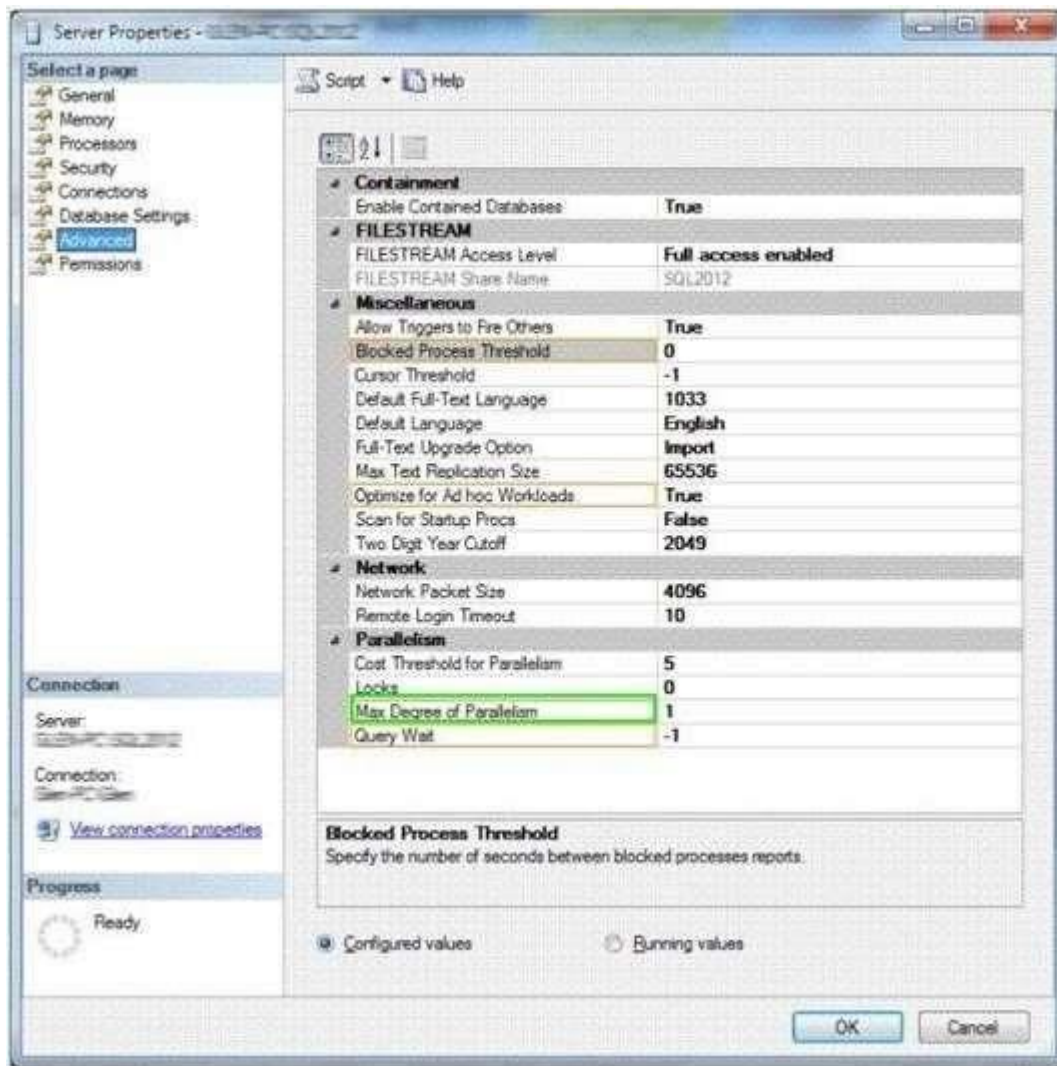
While troubleshooting, you discover that CPU utilization is low (less than 20 percent), disk activity is low (little or no waiting processes), and no significant blocking is occurring.

You need to ensure that the instance can process queries as quickly and efficiently as possible.

Which setting should you configure?



Answer:



### Question No : 88 - (Topic 2)

You administer two instances of Microsoft SQL Server 2016. 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.

**Answer: D**

**Question No : 89 - (Topic 2)**

Which of the following is a prerequisite for an SQL Server 2016 installation?

- A. .NET Framework 3.5 SP1
- B. Visual Basic 6
- C. Internet Explorer 10
- D. SQL Server Integration Services

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms143506%28v=sql.110%29.aspx>

**Question No : 90 - (Topic 2)**

You are the administrator of a Microsoft SQL Server 2016 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

**Answer: A**

#### Question No : 91 - (Topic 2)

You develop a Microsoft SQL Server 2016 database that contains tables named Employee and Person. The tables have the following definitions:

```
CREATE TABLE [dbo].[Employee] (
    [PersonId] [bigint] NOT NULL,
    [EmployeeNumber] [nvarchar](15) NOT NULL,
    CONSTRAINT [PK_Employee] PRIMARY KEY CLUSTERED
    (
        [PersonId] ASC
    ) ON [PRIMARY]
) ON [PRIMARY]
GO
```

```
CREATE TABLE [dbo].[Person] (
    [Id] [bigint] NOT NULL,
    [FirstName] [nvarchar](25) NOT NULL,
    [LastName] [nvarchar](25) NOT NULL,
    CONSTRAINT [PK_Person] PRIMARY KEY CLUSTERED
    (
        [Id] ASC
    ) ON [PRIMARY]
) ON [PRIMARY]
GO
```

You create a view named VwEmployee as shown in the following Transact-SQL statement.

```

CREATE VIEW [dbo].[VwEmployee]
AS
SELECT
Employee.EmployeeNumber,
    Person.FirstName,
    Person.LastName,
    Person.Id
FROM Employee
INNER JOIN Person
ON Employee.PersonId = Person.Id
GO

```

Users are able to use single INSERT statements or INSERT...SELECT statements into this view. You need to ensure that users are able to use a single statement to insert records into both Employee and Person tables by using the VwEmployee view.

Which Transact-SQL statement should you use?

- A.** CREATE TRIGGER TrgVwEmployee  
ON VwEmployee  
FOR INSERT  
AS  
BEGIN  
INSERT INTO Person(Id, FirstName, LastName)  
SELECT Id, FirstName, LastName, FROM inserted  
INSERT INTO Employee(PersonId, EmployeeNumber)  
SELECT Id, EmployeeNumber FROM inserted  
END
- B.** CREATE TRIGGER TrgVwEmployee  
ON VwEmployee  
INSTEAD OF INSERT  
AS  
BEGIN  
INSERT INTO Person(Id, FirstName, LastName)  
SELECT Id, FirstName, LastName, FROM inserted  
INSERT INTO Employee(PersonId, EmployeeNumber)  
SELECT Id, EmployeeNumber FROM inserted  
END
- C.** CREATE TRIGGER TrgVwEmployee  
ON VwEmployee

```

INSTEAD OF INSERT
AS
BEGIN
DECLARE @ID INT, @FirstName NVARCHAR(25), @LastName NVARCHAR(25),
@PersonID INT,
@EmployeeNumber NVARCHAR(15)
SELECT @ID = ID, @FirstName = FirstName, @LastName = LastName,
@EmployeeNumber =
EmployeeNumber
FROM inserted
INSERT INTO Person(Id, FirstName, LastName)
VALUES(@ID, @FirstName, @LastName)
INSERT INTO Employee(PersonID, EmployeeNumber)
VALUES(@PersonID, @EmployeeNumber)
End
D. CREATE TRIGGER TrgVwEmployee
ON VwEmployee
INSTEAD OF INSERT
AS
BEGIN
INSERT INTO Person(Id, FirstName, LastName)
SELECT Id, FirstName, LastName FROM VwEmployee
INSERT INTO Employee(PersonID, EmployeeNumber)
SELECT Id, EmployeeNumber FROM VwEmployee
End

```

**Answer: B**

#### **Question No : 92 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: A**

Reference: <http://www.sqlskills.com/blogs/glenn/creating-sql-server-agent-alertsforcriticalerrors/>

#### **Question No : 93 - (Topic 2)**

You administer a Microsoft SQL Server 2016 server that hosts a transactional database and a reporting database. The transactional database is updated through a web application and is operational throughout the day. The reporting database is only updated from the transactional database.

The recovery model and backup schedule are configured as shown in the following table:

Database	Description
Transactional database	Recovery model: <ul style="list-style-type: none"> <li>Full</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: midnight, daily</li> <li>Differential database backup: on the hour, every two hours starting at 02:00 hours except at 00:00 hours</li> <li>Log backup: every half hour, except at the times of full and differential backups</li> </ul>
Reporting database	Recovery model: <ul style="list-style-type: none"> <li>Simple</li> </ul> Backup schedule: <ul style="list-style-type: none"> <li>Full database backup: 01:00 hours daily</li> <li>Differential database backup: 13:00 hours daily</li> </ul> Data updates: <ul style="list-style-type: none"> <li>Changes in data are updated from the transactional database to the reporting database at 00:30 hours and at 12:30 hours</li> <li>The update takes 15 minutes</li> </ul>

One of the hard disk drives that stores the reporting database fails at 23:32 hours.

You need to ensure that the reporting database is restored. You also need to ensure that data loss is minimal.

What should you do?

- A. Perform a page restore.
- B. Perform a partial restore.
- C. Perform a point-in-time restore.
- D. Restore the latest full backup.
- E. Restore the latest full backup. Then, restore the latest differential backup.
- F. Restore the latest full backup, and restore the latest differential backup. Then, restore the latest log backup.
- G. Restore the latest full backup, and restore the latest differential backup. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- H. Restore the latest full backup. Then, restore each differential backup taken before the time of failure from the most recent full backup.

**Answer: E**

**Explanation:**

To recover the database, you must restore the latest full backup and then restore the latest differential backup.

**Question No : 94 - (Topic 2)**

Which of the following is the default instance name in an SQL Server 2016 installation?

- A. SQLSERVER12
- B. MSSQLSERVER
- C. MSSQL
- D. 2012SQL

**Answer: B**

**Explanation:** References:

[https://msdn.microsoft.com/en-us/library/ms143547\(v=sql.110\).aspx](https://msdn.microsoft.com/en-us/library/ms143547(v=sql.110).aspx)

**Question No : 95 - (Topic 2)**

Which feature should you enable and configure so session requests addressed to a specific instance can be allocated different processor resources based on session request properties?

- A. Resource Governor
- B. Windows System Resource Manager
- C. Processor affinity
- D. I/O affinity

**Answer: C**

### Question No : 96 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 database.

You need to convert the database to a contained database. You also need to ensure that all users are converted to contained users.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Execute the <b>ALTER DATABASE</b> statement along with <b>CONTAINMENT=PARTIAL</b> .		
Execute the <b>ALTER DATABASE</b> statement along with <b>CONTAINMENT=TRUE</b> .		
Execute <b>sp_configure</b> 'cross db ownership chaining', 1; <b>RECONFIGURE</b> .		
Execute <b>sp_configure</b> 'contained database authentication', 1; <b>RECONFIGURE</b> .		
Execute <b>sp_migrate_user_to_contained</b> for the database.		
Execute <b>sp_migrate_user_to_contained</b> for each user.		

**Answer:**

Execute the <b>ALTER DATABASE</b> statement along with <b>CONTAINMENT=PARTIAL</b> .		Execute <b>sp_configure</b> 'contained database authentication', 1; <b>RECONFIGURE</b> .
Execute the <b>ALTER DATABASE</b> statement along with <b>CONTAINMENT=TRUE</b> .		
Execute <b>sp_configure</b> 'cross db ownership chaining', 1; <b>RECONFIGURE</b> .		Execute the <b>ALTER DATABASE</b> statement along with <b>CONTAINMENT=PARTIAL</b> .
Execute <b>sp_configure</b> 'contained database authentication', 1; <b>RECONFIGURE</b> .		Execute <b>sp_migrate_user_to_contained</b> for each user.
Execute <b>sp_migrate_user_to_contained</b> for the database.		
Execute <b>sp_migrate_user_to_contained</b> for each user.		

### Question No : 97 - (Topic 2)

You administer a Microsoft SQL Server 2016 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

**Answer: A**

<b>Question No : 98 - (Topic 2)</b>
-------------------------------------

You develop a Microsoft SQL Server 2016 database. You create a view from the Orders and OrderDetails tables by using the following definition.

You need to improve the performance of the view by persisting data to disk.

What should you do?

- A.** Create an INSTEAD OF trigger on the view.
- B.** Create an AFTER trigger on the view.
- C.** Modify the view to use the WITH VIEW\_METADATA clause.
- D.** Create a clustered index on the view.

**Answer: D**

Reference: <http://msdn.microsoft.com/en-us/library/ms188783.aspx>

**Question No : 99 - (Topic 2)**

Which of the following editions of SQL Server 2016 can you run on a computer that is running the Windows 7 Professional (x64) operating system? (Choose all that apply.)

- A. SQL Server 2016 (x64) Developer edition
- B. SQL Server 2016 (x64) Web edition
- C. SQL Server 2016 (x64) Enterprise edition
- D. SQL Server 2016 (x64) Standard edition

**Answer: A,D**

**Question No : 100 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 database.

The database uses SQL Server Agent jobs to perform regular FULL and LOG backups.  
The database uses the FULL recovery model.

You plan to perform a bulk import of a very large text file.

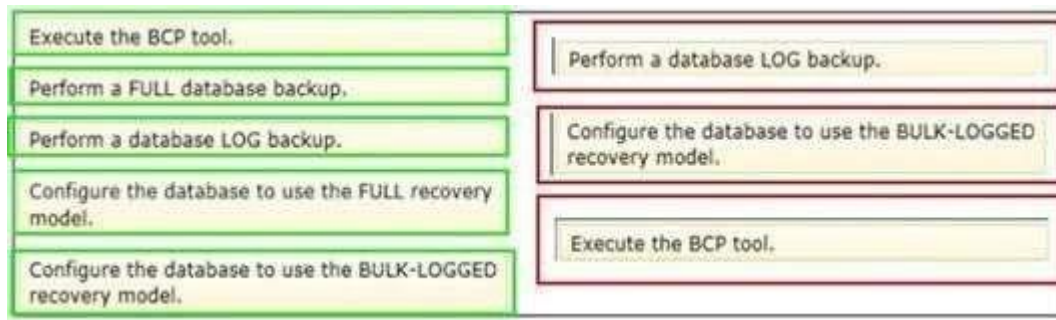
You need to ensure that the following requirements are met during the bulk operation:

- ☞ The database transaction log is minimally affected.
- ☞ The database is online and all user transactions are recoverable.
- ☞ All transactions are fully recoverable prior to the import.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Execute the BCP tool.	
Perform a FULL database backup.	
Perform a database LOG backup.	
Configure the database to use the FULL recovery model.	
Configure the database to use the BULK-LOGGED recovery model.	

**Answer:**



**Question No : 101 - (Topic 2)**

Which of the following statements will set the maximum amount of system memory that is managed by the SQL Server Memory Manager to 4GB?

- A. `sp_configure 'max memory', 4;`
- B. `ALTER SYSTEM SET 'max server memory'=4096;`
- C. `sp_configure 'max server memory', 4;`
- D. `sp_configure 'max server memory', 4096;`

**Answer: D**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms178067%28v=sql.110%29.aspx>

**Question No : 102 - (Topic 2)**

Which of the following DBCC commands shows optimizer statistics for objects such as tables?

- A. `STATS`
- B. `SHOW_STATISTICS`
- C. `OBJECT_STATS`
- D. `OPTIMIZER`

**Answer: B**

**Explanation:** References:

<https://technet.microsoft.com/en-us/library/ms174384%28v=sql.110%29.aspx>

**Question No : 103 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 server along with a Windows Azure SQL Database database.

For both servers, you need to grant users the ability to create logins and create databases.

You need to determine which permission to grant users in each instance.

Which permission or permissions should you choose? (To answer, drag the appropriate permission or permissions to their corresponding instance type or types in the answer area.)

Answer choices may be used once, more than once, or not at all. Answer targets may be used once or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.)

Instance Type	Permissions
local instance	dbmanager
Azure instance	dbcreator
	db_accessadmin
	loginmanager
	securityadmin

**Answer:**

Instance Type	Permissions
local instance	dbmanager
Azure instance	dbcreator
	db_accessadmin
	loginmanager
	securityadmin

### Question No : 104 - (Topic 2)

If you find that session ID 42 is blocking several other sessions, which of the following will kill that session?

- A. REMOVE 42;
- B. TERMINATE 42;
- C. KILL SESSION 42;
- D. KILL 42;

**Answer: D**

**Explanation:** References

<https://msdn.microsoft.com/enus/library/ms173730%28v=sql.110%29.aspx>

### Question No : 105 DRAG DROP - (Topic 2)

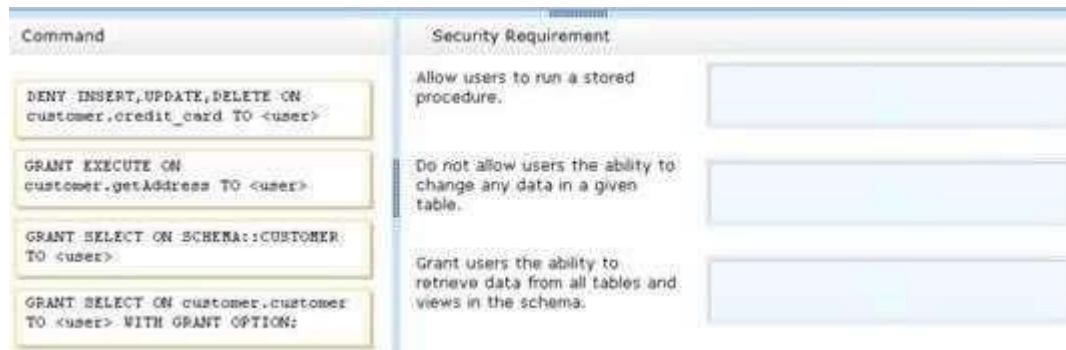
You administer a Microsoft SQL Server 2016 database.

The database contains a schema named CUSTOMER. CUSTOMER contains several tables and views with sensitive data, as well as various stored procedures and functions.

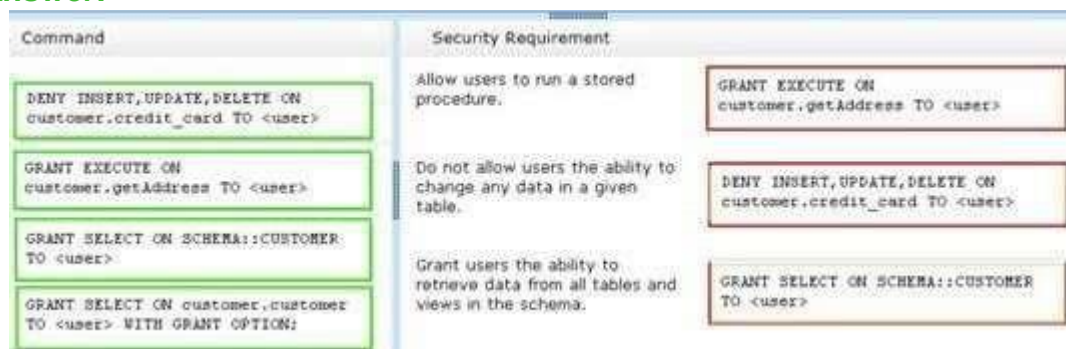
In order to configure security for CUSTOMER, you need to determine how to meet the security requirements listed in the answer area.

Which command or commands should you use? (To answer, drag the appropriate command or commands to their corresponding security requirement or requirements in the answer area. Answer choices may be used once, more than once, or not at all. Answer

targets may be used once or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.)



**Answer:**



### Question No : 106 DRAG DROP - (Topic 2)

You administer a database named SalesDb that has users named UserA, UserB, and UserC.

You need to ensure that the following requirements are met:

- \* UserA must be able to provide Windows login access to the database.
- \* UserB must be able to select, update, delete and insert data to the database tables.
- \* UserC must be able to create new tables and stores procedures

You need to achieve this goal by granting only the minimum permissions required.

To which fixed database role or roles should you add the users?

Users	Fixed Database Role	
UserA	db_ddladmin	
UserB	db_datareader	
UserC	db_datawriter	
	db_owner	
	db_accessadmin	

Answer:

Users	Fixed Database Role	
UserA	db_ddladmin	UserA
UserB	db_datareader	UserB
UserC	db_datawriter	UserC
	db_owner	UserA
	db_accessadmin	UserB

**Question No : 107 DRAG DROP - (Topic 2)**

You are a database administrator of a Microsoft SQL Server 2016 environment. The environment contains two servers named SQLServer01 and SQLServer02. The database Contoso exists on SQLServer01.

You plan to mirror the Contoso database between SQLServer01 and SQLServer02 by using database mirroring.

You need to prepare the Contoso database for database mirroring.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Back up Contoso on SQLServer01 by using a full backup.

Back up Contoso on SQLServer01 by using a full backup followed by a transaction log backup by using the **NORECOVERY** option.

Back up Contoso on SQLServer01 by using a transaction log backup. Restore the transaction log backup by using the **RECOVERY** option on SQLServer02.

Back up Contoso on SQLServer01 by using a transaction log backup. Restore the transaction log backup by using the **NORECOVERY** option on SQLServer02.

Restore the full database backup of Contoso by using the **NORECOVERY** option on SQLServer02 as Contoso.

Restore the full database backup of Contoso by using the **RECOVERY** option on SQLServer02 as Contoso\_Mirror.

Answer:

Back up Contoso on SQLServer01 by using a full backup.

Back up Contoso on SQLServer01 by using a full backup followed by a transaction log backup by using the **NORECOVERY** option.

Back up Contoso on SQLServer01 by using a transaction log backup. Restore the transaction log backup by using the **RECOVERY** option on SQLServer02.

Back up Contoso on SQLServer01 by using a transaction log backup. Restore the transaction log backup by using the **NORECOVERY** option on SQLServer02.

Restore the full database backup of Contoso by using the **NORECOVERY** option on SQLServer02 as Contoso.

Restore the full database backup of Contoso by using the **RECOVERY** option on SQLServer02 as Contoso\_Mirror.

Back up Contoso on SQLServer01 by using a full backup.

Restore the full database backup of Contoso by using the **NORECOVERY** option on SQLServer02 as Contoso.

Back up Contoso on SQLServer01 by using a transaction log backup. Restore the transaction log backup by using the **NORECOVERY** option on SQLServer02.

### Question No : 108 - (Topic 2)

Which of the following SQL Server 2016 tools assists DBAs in running and analyzing trace results?

- A. SSIS
- B. SQL Profiler
- C. AlwaysOn
- D. EXP

**Answer: B**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms187929%28v=sql.110%29.aspx>

#### Question No : 109 - (Topic 2)

You have a large partitioned fact table in a data warehouse. The table is stored as a clustered index.

You need to modify the indexing solution to minimize the amount of disk space required to store the table.

What should you do?

- A. Enable row compression for the clustered index.
- B. Enable page compression for the clustered index.
- C. Implement a clustered columnstore index.
- D. Implement a nonclustered columnstore index.

**Answer: B**

#### Question No : 110 - (Topic 2)

You administer a Microsoft SQL Server 2016 database.

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

```
CREATE TABLE dbo.Customer
(
    CustomerID INT PRIMARY KEY,
    CustomerName VARCHAR(100) NOT NULL,
    CustomerAddress1 CHAR(200) NOT NULL,
    CustomerAddress2 CHAR(200) NULL,
    CustomerCity VARCHAR(100) NOT NULL,
    CustomerPostalCode CHAR(5) NOT NULL);
```

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

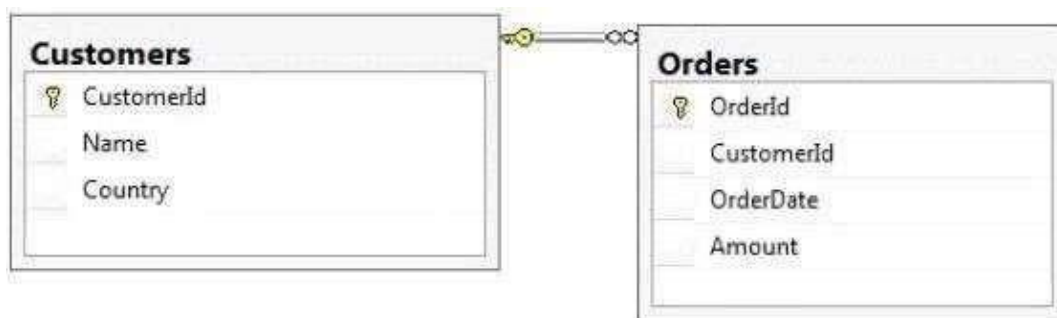
What should you do?

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

**Answer: B**

#### Question No : 111 - (Topic 2)

You administer a Microsoft SQL Server 2016 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</Name>
  <Country>Australia</Country>
  <Orders>
    <OrderId>1</OrderId>
    <OrderDate>2000-01-01T00:00:00</OrderDate>
    <Amount>3400.00</Amount>
  </Orders>
  <Orders>
    <OrderId>2</OrderId>
    <OrderDate>2001-01-01T00:00:00</OrderDate>
    <Amount>4300.00</Amount>
  </Orders>
</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 OrderId, 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, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers  
ON Orders.CustomerId= Customers.CustomerId WHERE Customers.CustomerId= 1  
FOR XML AUTO, ELEMENTS
- F.** SELECT Name, Country, CrderId, 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')

**Answer: E**

**Question No : 112 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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. Create a ConfigurationFile.ini file from Node B, and then run the AddNode commandline tool on Node A.
- B. Use Node A to install SQL Server on Node C.
- C. Run the Add Node to SQL Server Failover Cluster Wizard on Node C.
- D. Use Cluster Administrator to add a new Resource Group to Node B.

**Answer: C**

**Question No : 113 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 database named Human\_Resources.

You need to ensure that all read activity against any object in the Human\_Resources database is audited and written to a text file.

What should you do? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

**Actions**

- Enable Audit and Audit Specification.
- Create a new Audit. For destination, select **File**.
- Create a new Audit. For destination, select **Security Log**.
- Create a new server Audit Specification. For Audit Action Type, select DATABASE\_OBJECT\_ACCESS\_GROUP.
- Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select Select, and for Object Class, select Database.
- Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select References, and for Object Class, select Database.

**Answer Area**

Navigation icons: > < ^ v

**Answer:**

**Actions**

- Enable Audit and Audit Specification.
- Create a new Audit. For destination, select **File**.
- Create a new Audit. For destination, select **Security Log**.
- Create a new server Audit Specification. For Audit Action Type, select DATABASE\_OBJECT\_ACCESS\_GROUP.
- Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select Select, and for Object Class, select Database.
- Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select References, and for Object Class, select Database.

**Answer Area**

1. Create a new Audit. For destination, select **File**.

2. Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select Select, and for Object Class, select Database.

3. Enable Audit and Audit Specification.

Navigation icons: > < ^ v

**Explanation:**

Create a new Audit. For destination, select **File**.

Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, select Select, and for Object Class, select Database.

Enable Audi and Audi Specification.

The general process for creating and using an audit is as follows.

- ☞ Create an audit and define the target.

- ☞ Create either a server audit specification or database audit specification that maps to the audit. Enable the audit specification.
- ☞ Enable the audit.
- ☞ Read the audit events by using the Windows Event Viewer, Log File Viewer, or the `fn_get_audit_file` function.

References: <https://msdn.microsoft.com/enus/library/cc280386%28v=sql.110%29.aspx>  
<https://msdn.microsoft.com/en-us/library/cc280663%28v=sql.110%29.aspx>

#### Question No : 114 - (Topic 2)

Which of the following is the default file extension for an SQL Server 2016 backup file?

- A. .rman
- B. .bac
- C. .bak
- D. .db

**Answer: C**

#### Question No : 115 - (Topic 2)

You administer two Microsoft SQL Server 2016 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 ReplData share on ProdSrv1.
- D.** Configure the Subscriber to use a Windows domain account. Grant READ access for the domain account to the ReplData share on ProdSrv1.

**Answer: D**

#### **Question No : 116 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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 gather blocking data over an extended period of time. You also need to ensure minimum impact to server performance.

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 and examine the BlkBy column.
- E.** Run the DBCC TRACEON 1222 command from a query window and review the SQL Server event log.

**Answer: A**

### Question No : 117 DRAG DROP - (Topic 2)

Every Sunday afternoon, a process inserts a large volume of data. Users generate reports and modify additional data throughout the week.

You need to create a backup strategy that:

- \* minimizes the size of the transaction log.
- \* minimizes the size of the backups, and
- \* ensures a 24-hour recovery point objective (RPO)

Which Strategy or strategies should you use?

Strategies	Task
FULL recovery model	Recovery Model
SIMPLE recovery model	Sunday Backup
BULK_LOGGED recovery model	Nightly Backup
Full database backup	

**Answer:**

Strategies	Task
FULL recovery model	Recovery Model: SIMPLE recovery model
SIMPLE recovery model	Sunday Backup: Full database backup
BULK_LOGGED recovery model	Nightly Backup: Full database backup
Full database backup	

### Question No : 118 - (Topic 2)

You administer a Microsoft SQL Server 2016 database.

Users report that a billing application becomes unresponsive during busy times of the day.

While investigating, you notice large number of processes taking or waiting for table locks.

You suspect that SQL Server is assigning stronger locks to queries.

You start a SQL Profiler trace.

Which event should you select?

- A. Deadlock graph
- B. Lock: Escalation
- C. Lock: Timeout
- D. Lock: Deadlock

**Answer: B**

**Question No : 119 - (Topic 2)**

You administer a SQL Server 2016 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

**Answer: F**

**Explanation:**

References: <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 No : 120 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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 implement log shipping of the financial database to another SQL Server 2016 instance.

You decide to failover to this secondary database.

You need to ensure that all transactions will be replicated to the secondary database.

Which backup option should you use?

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

**Answer: B**

Reference:

<http://technet.microsoft.com/en-us/library/ms187103.aspx>

<http://msdn.microsoft.com/en-us/library/ms191233.aspx>

<http://msdn.microsoft.com/en-us/library/ms178117.aspx>

**Question No : 121 - (Topic 2)**

You administer a Microsoft SQL Server 2016 Enterprise Edition server that uses 64 cores.

You discover performance issues when complex calculations are performed on large amounts of data under heavy system load.

You need to limit the number of cores that process the calculations.

What should you configure?

- A. Max worker threads
- B. Processor affinity
- C. I/O affinity
- D. Lightweight pooling

**Answer: B**

**Explanation:**

To carry out multitasking, the operating system sometimes moves process threads among different processors. This is efficient from an operating system point of view, but can reduce SQL Server performance under heavy system loads, as each processor cache is repeatedly reloaded with data. Assigning processors to specific threads can improve performance under these conditions by eliminating processor reloads; such an association between a thread and a processor is called processor affinity.

References:

<https://msdn.microsoft.com/en-us/library/ms189629%28v=sql.110%29.aspx>

**Question No : 122 - (Topic 2)**

Which of the following SQL Server 2016 indexes stores data in a column-wise fashion instead of the traditional row-wise method?

- A. Bitmap Index
- B. Clustered Index

- C. Function-based Index
- D. Columnstore Index

**Answer: D**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/gg492088%28v=sql.110%29.aspx>

### Question No : 123 - (Topic 2)

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()))
```

**Answer: D**

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

**Question No : 124 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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.

**Answer: C**

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

**Question No : 125 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: C**

**Question No : 126 - (Topic 2)**

You have a SQL Server database named DB1.

You plan to load 10 million rows to DB1 by running bcp.exe.

You need to modify DB1 to minimize the amount of space required to store the transaction logs during the load operation. The solution must ensure that you can perform a point-in time restore.

Which database setting should you modify?

- A. Compatibility level to 120
- B. Containment type to partial.
- C. Recovery model to Bulk logged.
- D. Recovery model to simple.

**Answer: C**

**Question No : 127 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 database.

Your database is experiencing deadlock issues.

You need to be able to monitor deadlocks.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



## Answer:



Explanation: <https://msdn.microsoft.com/en-us/library/ms188396.aspx>

	<b>1222</b>	Returns the resources and types of locks that are participating in a deadlock and also the current o format that does not comply with any XSD schema.  <b>Scope:</b> global only

## Remarks

In SQL Server, there are two types of trace flags: session and global. Session trace flags are active for a connection. Global trace flags are set at the server level and are visible to every connection on the server. Some flags can be enabled at either global or session scope.

The following rules apply:

- A global trace flag must be enabled globally. Otherwise, the trace flag has no effect. We recommend that you enable global trace flags at startup, by using the **-T** command line option.
- If a trace flag has either global or session scope, it can be enabled with the appropriate scope. A trace flag never affects another session, and the effect of the trace flag is lost when the SPID that opened the session ends.

Trace flags are set on or off by using either of the following methods:

- Using the DBCC TRACEON and DBCC TRACEOFF commands.

For example, DBCC TRACEON 2528: To enable the trace flag globally, use DBCC TRACEON with the -1 argument. To turn off a global trace flag, use DBCC TRACEOFF with the -1 argument.

- Using the **-T** startup option to specify that the trace flag be set on during startup.

The **-T** startup option enables a trace flag globally. You cannot enable a session-level trace flag by using a startup option. For more information about startup options, see [Database Engine Service Startup Options](#).

- At the query level, by using the **QUERYTRACEON** [query hint](#).

Use the DBCC TRACESTATUS command to determine which trace flags are currently active.

### Question No : 128 - (Topic 2)

You are a database administrator for a Microsoft SQL Server 2016 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

**Answer: B**

#### Question No : 129 - (Topic 2)

You have recently removed a SQL 2012 Database Engine instance from a computer running the Windows Server 2008 R2 operating system. Prior to the removal of the instance, you had configured affinity so that the default instance used CPU 0 and 1 and the second instance used CPU 2 and 3.

You want to ensure that the default instance can use all processors available to the host.

Which of the following commands would you use to accomplish this goal?

- A. ALTER SERVER CONFIGURATION SET PROCESS AFFINITY CPU = AUTO
- B. ALTER SERVER CONFIGURATION SET PROCESS AFFINITY CPU = 2,3
- C. ALTER SERVER CONFIGURATION SET PROCESS AFFINITY CPU = 0,1
- D. ALTER SERVER CONFIGURATION SET PROCESS AFFINITY CPU = 0,4

**Answer: A**

#### Question No : 130 - (Topic 2)

You are a database developer for an application hosted on a Microsoft SQL Server 2016 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

**Answer: A**

**Question No : 131 - (Topic 2)**

You administer a SQL Server 2016 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'

**Answer: D**

**Explanation:** References: <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 No : 132 - (Topic 2)**

Which of the following statements about the tempdb system database is FALSE?

- A. It is a globally available resource for all connected users.
- B. It can hold explicitly or implicitly created database objects.
- C. It must be sized in accordance with the smallest user-database on the machine.
- D. It is created every time the SQL Server instance is restarted.

**Answer: C**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms190768%28v=sql.110%29.aspx>

**Question No : 133 DRAG DROP - (Topic 2)**

You have a SQL server database server that contains a database named CustomerDB. CustomerDB is protected by using transparent data encryption (TDE) and a certificate named TDE\_cert.

The Server fails.

You deploy a new server and restore all of the backups to a folder named C:\backups.

You need to restore the database to the new server.

Which Statements should you execute in sequence?

Answer:

CREATE CERTIFICATE <u>IDE_cert</u> WITH SUBJECT='IDE'	
RESTORE DATABASE <u>CUSTOMERDB</u> FROM DISK='C:\backups\ <u>CustomerDB.bak</u> '	
CREATE MASTER KEY ENCRYPTION BY PASSWORD='MyPassword'	
CREATE CERTIFICATE <u>IDE_Cert</u> FROM FILE='c:\backups\ <u>IDE_Cert.Cer</u> DECRYPTION BY PASSWORD='MyPassword'	
ALTER DATABASE ENCRYPTION KEY WITH <u>AES_256</u> ENCRYPTION BY SERVER CERTIFICATE <u>IDE_Cert</u>	

### Question No : 134 - (Topic 2)

You administer a Microsoft SQL Server database.

CREATE CERTIFICATE <u>IDE_cert</u> WITH SUBJECT='IDE'		CREATE MASTER KEY ENCRYPTION BY PASSWORD='MyPassword'
RESTORE DATABASE <u>CUSTOMERDB</u> FROM DISK='C:\backups\ <u>CustomerDB.bak</u> '		CREATE CERTIFICATE <u>IDE_Cert</u> FROM FILE='c:\backups\ <u>IDE_Cert.Cer</u> DECRYPTION BY PASSWORD='MyPassword'
CREATE MASTER KEY ENCRYPTION BY PASSWORD='MyPassword'		RESTORE DATABASE <u>CUSTOMERDB</u> FROM DISK='C:\backups\ <u>CustomerDB.bak</u> '
CREATE CERTIFICATE <u>IDE_Cert</u> FROM FILE='c:\backups\ <u>IDE_Cert.Cer</u> DECRYPTION BY PASSWORD='MyPassword'		
ALTER DATABASE ENCRYPTION KEY WITH <u>AES_256</u> ENCRYPTION BY SERVER CERTIFICATE <u>IDE_Cert</u>		

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...MODIFY FILE command along with the maxsize parameter.
- C. Use the ALTER DATABASE...MODIFY FILEGROUP command along with the maxsize parameter.
- D. in SQL Server Management Studio, expand the storage leaf under the database. Select the Transaction log file and set the maximum size of the file.

**Answer: B**

Explanation:

```
USE [master]
```

```
GO
```

```
ALTER DATABASE [mydb] MODIFY FILE ( NAME = N'modellog',  
MAXSIZE = )
```

```
GO
```

#### Question No : 135 - (Topic 2)

You work as a Database Administrator (DBA) at ABC.com. The infrastructure includes servers running Microsoft SQL Server 2016. All databases are hosted on a SAN (Storage Area Network).

You need to design a database solution for a new application.

You are tasked with designing a high-availability database solution.

The solution must include a single copy of the database to save disk space and the database must remain online in the event of a SQL Server failure. What should you include in your solution?

- A. You should include two servers configured as a failover cluster.
- B. You should include two servers and database mirroring.
- C. You should include two servers and log shipping.
- D. You should include two servers configure as a SQL Server Availability Group

**Answer: A**

**Question No : 136 - (Topic 2)**

You administer a Microsoft SQL Server 2016 instance.

You discover that the SQL Agent Error Log file is rapidly growing in size.

You need to ensure that the SQL Agent Error Log file does not grow rapidly when SQL Server agent jobs execute.

## What should you do?

- A.** Execute the `sp_cycle_agent_errorlog` stored procedure.
- B.** Configure event forwarding.
- C.** Enable the Auto Shrink option on the master database.
- D.** Enable the Auto Shrink option on the msdb database.
- E.** Disable the Include execution trace messages feature.

**Answer: E** Explanaton:

**Question No : 137 - (Topic 2)**

You administer a Microsoft SQL Server 2016 database.

By default, execution trace messages are not written to the SQL Server Agent error log, because they can fill it. When the error select and analyze more difficult errors is reduced. Because the log adds to the server's processing load, it is important to consider you obtain by capturing execution trace messages to the error log. Generally, it is best to capture all messages only when you have a problem.

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.** Update all stored procedure to use a TRY...CATCH block.

- 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.

**Answer: A**

#### **Question No : 138 - (Topic 2)**

Which of the following is a valid upgrade path for SQL Server 2016?

- A. SQL Server 2000 -> SQL Server 2016
- B. SQL Server 2000 -> SQL Server 2005 -> SQL Server 2016
- C. SQL Server 7 -> SQL Server 2016
- D. Oracle 11g -> SQL Server 2016

**Answer: B**

**Explanation:** References:

<https://technet.microsoft.com/en-us/library/ms143393%28v=sql.110%29.aspx>

<https://technet.microsoft.com/en-us/library/ms143393%28v=sql.90%29.aspx>

#### **Question No : 139 - (Topic 2)**

Before moving an SQL Server 2016 database file to a new location, which of the following must first be accomplished?

- A. The database must be set to OFFLINE.
- B. The SQL Server Service must be stopped.
- C. The database must be deleted.
- D. The database must have the “shrink” operation run.

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms345483%28v=sql.110%29.aspx>

**Question No : 140 DRAG DROP - (Topic 2)**

You create a view based on the following statement:

```
CREATE VIEW dbo.vwItemList
AS
SELECT
    b.BatchID
    , b.MailItemID
    , c.ContractNum
    , c.FirstName + ' ' + c.LastName as ContractName
    , a.Address1
    , a.City + ', ' + a.State + ' ' + a.Zip
FROM BatchLog b
join Contract c on b.MailItemID = c.ContractID
join Address a on a.ContractID = c.ContractID
WHERE
    b.ProcessDate >= dateadd(d, 1, EOMONTH(GETDATE(), -2));
```

You grant the Select permission to User1 for this view. You need to change the view so that it displays only the records that were processed in the month prior to the current month. You need to ensure that after the changes, the view functions correctly for User1. Which four Transact-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

## Answer List Title

```
DROP VIEW  
dbo.vwltemList;  
GO  
CREATE VIEW  
dbo.vwltemList  
AS
```

```
ALTER VIEW  
dbo.vwltemList  
AS
```

```
WHERE b.ProcessDate >=  
dateadd (d, 1, EOMONTH  
(GETDATE ( ), -2 ) )  
AND b.ProcessDate <=  
EOMONTH (GETDATE ( ), -1)
```

```
WHERE b.ProcessDate >=  
dateadd (d, 1, EOMONTH  
(GETDATE ( ), -2))  
AND b.ProcessDate <  
dateadd (d, 1, EOMONTH  
(GETDATE ( ), -1))
```

```
SELECT  
b.BatchID  
, b.BailltemID  
, c.ContractNum  
, c.FirstName + " "  
c.LastName as  
ContractName  
, a.Address1  
, a.City + ' ' + a.State + ' '  
+ a.Zip
```

```
FROM BatchLog b  
JOIN Contract c ON  
b.MailltemID = c.ContractID  
JOIN Address a ON  
a.ContractID = c.ContractID
```

```
GO  
GRANT SELECT ON  
SCHEMA : : vwltemList TO  
User1
```

## Ordered List Title

Answer:

### Answer List Title

```
DROP VIEW
dbo.vwltemList;
GO
CREATE VIEW
dbo.vwltemList
AS
```

```
ALTER VIEW
dbo.vwltemList
AS
```

```
WHERE b.ProcessDate >=
dateadd (d, 1, EOMONTH
(GETDATE ( ), -2 ))
AND b.ProcessDate <=
EOMONTH (GETDATE (), -1)
```

```
WHERE b.ProcessDate >=
dateadd (d, 1, EOMONTH
(GETDATE ( ), -2))
AND b.ProcessDate <
dateadd (d, 1, EOMONTH
(GETDATE ( ), -1))
```

```
SELECT
b.BatchID
, b.BailltemID
, c.ContractNum
, c.FirstName + " " +
c.LastName as
ContractName
, a.Address1
, a.City + ' , ' + a.State + ' '
+ a.Zip
```

```
FROM BatchLog b
JOIN Contract c ON
b.MailltemID = c.ContractID
JOIN Address a ON
a.ContractID = c.ContractID
```

```
GO
GRANT SELECT ON
SCHEMA : : vwltemList TO
User1
```

### Ordered List Title

```
ALTER VIEW
dbo.vwltemList
AS
```

```
SELECT
b.BatchID
, b.BailltemID
, c.ContractNum
, c.FirstName + " " +
c.LastName as
ContractName
, a.Address1
, a.City + ' , ' + a.State + ' '
+ a.Zip
```

```
FROM BatchLog b
JOIN Contract c ON
b.MailltemID = c.ContractID
JOIN Address a ON
a.ContractID = c.ContractID
```

```
WHERE b.ProcessDate >=
dateadd (d, 1, EOMONTH
(GETDATE ( ), -2 ))
AND b.ProcessDate <=
EOMONTH (GETDATE (), -1)
```

Explanation:

## Ordered List Title

```
ALTER VIEW  
dbo.vwItemList  
AS
```

```
SELECT  
    b.BatchID  
    , b.BailltemID  
    , c.ContractNum  
    , c.FirstName + " "  
    c.LastName as  
    ContractName  
    , a.Address1  
    , a.City + ' , ' + a.State + ' '  
    + a.Zip
```

```
FROM BatchLog b  
JOIN Contract c ON  
b.MailltemID = c.ContractID  
JOIN Address a ON  
a.ContractID = c.ContractID
```

```
WHERE b.ProcessDate >=  
dateadd (d, 1, EOMONTH  
(GETDATE ( ), -2 ))  
AND b.ProcessDate <=  
EOMONTH (GETDATE (), -1)
```

Explanation/Reference: <http://msdn.microsoft.com/en-us/library/hh213020.aspx>  
<http://msdn.microsoft.com/en-us/library/ms186819.aspx> <http://msdn.microsoft.com/enus/library/ms173846.aspx>

### **Question No : 141 DRAG DROP - (Topic 2)**

You want to add a new GUID column named BookGUID to a table named dbo.Book that already contains data.

BookGUID will have a constraint to ensure that it always has a value when new rows are inserted into dbo.Book. You need to ensure that the new column is assigned a GUID for existing rows. Which four Transact-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

Answer List Title	Ordered List Title
newid( )	
newguid( )	
WITH VALUES	
WITH EXISTING	
CONSTRAINT DF_BookGuid CHECK	
CONSTRAINT DF_BookGuid DEFAULT	
ALTER TABLE dbo.Book ADD BookGuid Varchar (10) NOT NULL	
ALTER TABLE dbo.Book ADD BookGuid uniqueidentifier (10) NOT NULL	

Answer:

Answer List Title	Ordered List Title
newid( )	ALTER TABLE dbo.Book ADD BookGuid uniqueidentifier (10) NOT NULL
newguid( )	
WITH VALUES	CONSTRAINT DF_BookGuid DEFAULT
WITH EXISTING	newid( )
CONSTRAINT DF_BookGuid CHECK	
CONSTRAINT DF_BookGuid DEFAULT	WITH VALUES
ALTER TABLE dbo.Book ADD BookGuid Varchar (10) NOT NULL	
ALTER TABLE dbo.Book ADD BookGuid uniqueidentifier (10) NOT NULL	

### Question No : 142 - (Topic 2)

You develop a database for a travel application. You need to design tables and other database objects. You need to store media files in several tables. Each media file is less than 1 MB in size.

The media files will require fast access and will be retrieved frequently.

What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.

- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Answer: F**

Reference: <http://msdn.microsoft.com/en-us/library/ms188362.aspx>

### Question No : 143 - (Topic 2)

You install Microsoft SQL Server 2016 on a new server.

After setup is complete, you attempt to start the SQL Server service. After being in a starting state for a few moments, the service goes back to a stopped state.

You need to determine the cause of the failure.

Which file should you use?

- A. %programfiles%\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\Log\Errorlog
- B. %programfiles%\Microsoft SQL Server\110\Setup Bootstrap\Log\Summary.txt
- C. %programfiles%\Microsoft SQL Server\110\Shared>ErrorDumps\SQLDmpr[XXXX].mdmp
- D. %programfiles%\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\DATA\mastlog.ldf

**Answer: A**

**Question No : 144 - (Topic 2)**

You use Microsoft SQL Server 2016 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.

**Answer: A**

**Question No : 145 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B,C,D,E**

**Question No : 146 - (Topic 2)**

You administer a Microsoft SQL Server 2016 database named Contoso that contains a single user-defined database role named BillingUsers.

All objects in Contoso are in the dbo schema.

You need to grant EXECUTE permission for all stored procedures in Contoso to BillingUsers.

Which Transact-SQL statement should you use?

- A.** CREATE ROLE proc\_caller  
GRANT EXECUTE ON Schema: : dbo TO proc\_caller  
ALTER ROLE proc\_caller ADD MEMBER BillingUsers
- B.** GRANT EXECUTE ON INFORMATION\_SCHEMA.ROUTINES TO BillingUsers
- C.** EXEC sp\_addrolemember 'executor', 'BillingUsers'
- D.** CREATE ROLE proc\_caller  
GRANT EXECUTE ON ALL PROCEDURES TO proc\_caller  
ALTER MEMBER BillingUsers ADD TO ROLE proc\_caller

**Answer: A**

**Question No : 147 - (Topic 2)**

A table named Profits stores the total profit made each year within a territory. The Profits table has columns named Territory, Year, and Profit. You need to create a report that displays the profits made by each territory for each year and its previous year.

Which Transact-SQL query should you use?

- A.** SELECT Territory, Year, Profit,

LEAD(Profit, 1, 0) OVER (PARTITION BY Territory ORDER BY Year) AS PrevProfit  
FROM Profits

**B.** SELECT Territory, Year, Profit,  
LAG(Profit, 1, 0) OVER (PARTITION BY Year ORDER BY Territory) AS PrevProfit FROM  
Profits

**C.** SELECT Territory, Year, Profit,  
LAG(Profit, 1, 0) OVER (PARTITION BY Territory ORDER BY Year) AS PrevProfit FROM  
Profits

**D.** SELECT Territory, Year, Profit,  
LEAD(Profit, 1, 0) OVER (PARTITION BY Year ORDER BY Territory) AS PrevProfit  
FROM Profits

**Answer: C** Reference:

<http://msdn.microsoft.com/enus/library/hh231256.aspx>

<http://msdn.microsoft.com/en-us/library/hh213125.aspx>

### Question No : 148 - (Topic 2)

You administer a SQL Server 2016 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'

**Answer: H**

**Explanation:**

References: <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 No : 149 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: F**

**Question No : 150 - (Topic 2)**

Which of the following is a disaster recovery solution offered in SQL Server 2016 and involves maintaining a standby copy of a primary database?

- A. AlwaysOn
- B. Log Shipping
- C. Clustering
- D. DataGuard

**Answer: A**

**Question No : 151 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B**

#### **Question No : 152 - (Topic 2)**

You create a table that has the StudentCode, SubjectCode, and Marks columns to record mid-year marks for students. The table has marks obtained by 50 students for various subjects.

You need to ensure that the top half of the students arranged by their average marks must be given a rank of 1 and the remaining students must be given a rank of 2.

Which Transact-SQL query should you use?

- A.** SELECT StudentCode as Code,  
RANK() OVER (ORDER BY AVG (Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode
- B.** SELECT Id, Name, Marks,  
DENSE\_RANK() OVER (ORDER BY Marks DESC) AS Rank  
FROM StudentMarks
- C.** SELECT StudentCode as Code,  
DENSE\_RANK() OVER (ORDER BY AVG (Marks) DESC) AS Value

FROM StudentMarks  
GROUP BY StudentCode  
**D.** SELECT StudentCode as Code,  
NTILE (2) OVER (ORDER BY AVG (Marks) DESC) AS Value  
FROM StudentMarks  
GROUP BY StudentCode  
**E.** SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANK() OVER (PARTITION BY SubjectCode ORDER BY Marks ASC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1  
**F.** SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANK() OVER (PARTITION BY SubjectCode ORDER BY Marks DESC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1  
**G.** SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANK () OVER (PARTITION BY StudentCode ORDER BY Marks ASC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1  
**H.** SELECT StudentCode AS Code,Marks AS Value FROM (  
SELECT StudentCode, Marks AS Marks,  
RANXO OVER (PARTITION BY StudentCode ORDER BY Marks DESC) AS Rank  
FROM StudentMarks) tmp  
WHERE Rank = 1

**Answer: D**

### **Question No : 153 - (Topic 2)**

You plan to install Microsoft SQL Server 2016 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

**Answer: B**

**Question No : 154 - (Topic 2)**

You are developing a database application by using Microsoft SQL Server 2016. An application that uses a database begins to run slowly.

You discover that a large amount of memory is consumed by single-use dynamic queries.

You need to reduce procedure cache usage from these statements without creating any additional indexes.

What should you do?

- A. Add a HASH hint to the query.
- B. Add a LOOP hint to the query.
- C. Add a FORCESEEK hint to the query.
- D. Add an INCLUDE clause to the index.
- E. Add a FORCESCAN hint to the Attach query.
- F. Add a columnstore index to cover the query.
- G. Enable the optimize for ad hoc workloads option.
- H. Cover the unique clustered index with a columnstore index.
- I. Include a SET FORCEPLAN ON statement before you run the query.
- J. Include a SET STATISTICS PROFILE ON statement before you run the query.
- K. Include a SET STATISTICS SHOWPLAN\_XML ON statement before you run the query.
- L. Include a SET TRANSACTION ISOLATION LEVEL REPEATABLE READ statement before you run the query.
- M. Include a SET TRANSACTION ISOLATION LEVEL SNAPSHOT statement before you run the query.
- N. Include a SET TRANSACTION ISOLATION LEVEL SERIALIZABLE statement before you run the query.

**Answer: G**

Reference: <http://msdn.microsoft.com/en-us/library/cc645587.aspx>

**Question No : 155 - (Topic 2)**

You administer a Microsoft SQL Server 2016 database named Orders.

Users report that during peak usage periods, certain operations are taking more time than expected. Your initial analysis suggests that blocking is the cause.

You need to gather more data to be able to determine which processes are being blocked and to identify the root cause.

What should you do?

- A. Schedule a SQL Agent job to run every 60 Seconds and insert the results of executing the SP\_who2 stored procedure table
- B. Use System Monitor to catch the Lock Wait Time event
- C. Use Sp\_Configure to set the blocked process threshold. Start a Trace using SQL Server Profiler to catch the Blocking Pro-Report event.
- D. Start a Trace using SQL Server Profiler to catch the Lock: Timeout event

**Answer: C**

**Question No : 156 - (Topic 2)**

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

**Answer: C**

**Question No : 157 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: C**

**Question No : 158 DRAG DROP - (Topic 2)**

You administer a Windows Azure SQL Database database used for data warehouse operations.

The database contains a table named OrdersHistory, defined as follows:

```

CREATE TABLE OrdersHistory
(OrderID bigint NOT NULL,
 CustomerID int NOT NULL,
 ShippingAddressID int NOT NULL,
 OrderDetails varchar(4000) NULL,
 ShipDate date NULL)

CREATE NONCLUSTERED INDEX IX_OrdersHistory_OrderID
ON OrdersHistory (OrderID) INCLUDE (CustomerID, OrderDetails)

CREATE NONCLUSTERED INDEX IX_OrdersHistory_CustomerID_OrderID
ON OrdersHistory (CustomerID, OrderID) INCLUDE (OrderDetails)

CREATE NONCLUSTERED INDEX IX_OrdersHistory_Shipdate
ON OrdersHistory (ShipDate) INCLUDE (CustomerID, OrderID)

```

A weekly ETL (extract-transform-load) runs a large INSERT statement to add data into the OrdersHistory table. The process is taking a long time to complete. You discover that the bulk of the process is performing non-clustered index updates on the OrdersHistory table.

You need to improve the performance of the ETL process faster. You need to meet the following requirements:

Avoid losing existing permissions on existing objects.

Use minimal administrative effort.

What should you do? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Change the INSERT statement to a SELECT INTO statement. Run the SELECT INTO statement.	
Run a CREATE INDEX statement for each index.	
Run a DROP INDEX statement for each index.	
Run the INSERT statement.	
Run the following statement: DROP TABLE OrdersHistory.	
Run the following statement: ALTER INDEX ALL on OrdersHistory DISABLE.	
Run the following statement: ALTER INDEX ALL on OrdersHistory REBUILD.	

**Answer:**

Change the INSERT statement to a SELECT INTO statement. Run the SELECT INTO statement.	Run the following statement: ALTER INDEX ALL on OrdersHistory DISABLE.
Run a CREATE INDEX statement for each index.	
Run a DROP INDEX statement for each index.	
Run the INSERT statement.	Run the INSERT statement.
Run the following statement: DROP TABLE OrdersHistory.	Run the following statement: ALTER INDEX ALL on OrdersHistory REBUILD.
Run the following statement: ALTER INDEX ALL on OrdersHistory DISABLE.	
Run the following statement: ALTER INDEX ALL on OrdersHistory REBUILD.	

### Question No : 159 - (Topic 2)

You administer a Microsoft SQL Server 2016 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';

**Answer: B**

**Question No : 160 - (Topic 2)**

Which of the following is a valid data source which you can import into SQL Server 2016?

- A. Oracle data file
- B. .DOC file
- C. Access 2010
- D. Oracle export file

**Answer: C**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms141209%28v=sql.110%29.aspxv>

**Question No : 161 - (Topic 2)**

Which of the following will show you a history of job errors that have occurred in jobs scheduled to run in an SQL Server 2016 installation?

- A. Look at the sys.all\_job\_hist table.
- B. In Management Studio, navigate to SQL Server Agent -> Error Logs and look at the log for the corresponding date.
- C. Open the c:\error\job.log file and search for the particular job and the errors you wish to view.
- D. You must use T-SQL to write a job-logging procedure to monitor jobs.

**Answer: D**

**Question No : 162 - (Topic 2)**

Which of the following transaction safety setting in SQL Server 2016 mirroring forces the mirror to be synchronized with the primary at all times?

- A. SAFETY FULL
- B. SAFETY OFF
- C. MIRROR SYNC

**D. MIRROR 100**

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms189852%28v=sql.110%29.aspx>

**Question No : 163 - (Topic 2)**

What is the maximum number of SQL Server 2016 Enterprise edition Database Engine instances that you can deploy on a non-clustered server running Windows Server 2008 R2 Enterprise edition?

- A. 10**
- B. 25**
- C. 50**
- D. 100**

**Answer: C**

**Question No : 164 - (Topic 2)**

You administer a SQL Server 2016 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 and 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 the Regions table.

Which Transact-SQL statement should you use?

- A. REVOKE SELECT ON Schema::Customers FROM UserA**

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

**Answer: J**

**Explanation:**

References: <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 No : 165 - (Topic 2)**

You plan to install a Microsoft SQL Server 2016 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

**Answer: B**

**Question No : 166 - (Topic 2)**

You administer a Microsoft SQL Server 2016 default instance.

The instance is hosted by a server that has a local firewall configured. The firewall only allows inbound connections on port 1433. The server only hosts a single instance of SQL Server.

You need to ensure that the instance is configured to allow remote connections even if the SQL Server is unresponsive to client connections.

What should you do? Choose all that apply.

- A.** Enable inbound connections on TCP port 1434 in the Windows Firewall on the server.
- B.** Execute the following Transact-SQL command:  
`sp_configure 'remote admin connections', 1`
- C.** Execute the Reconfigure command.
- D.** Execute the following Transact-SQL command:  
`sp_configure 'remote access', 1`
- E.** Restart the SQL Server Agent Service.
- F.** Enable inbound connections on TCP port 135 in the Windows Firewall on the server.

**Answer: A,B,C** Reference:

<http://msdn.microsoft.com/en-us/library/ms191464.aspx>

<http://msdn.microsoft.com/en-us/library/ms190468.aspx>

**Question No : 167 - (Topic 2)**

What is the minimum recommended amount of RAM for SQL Server 2016 Enterprise?

- A.** 512 MB
- B.** 1 GB **C.**

2 GB D.  
4 GB

**Answer: B**

**Question No : 168 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: B**

**Question No : 169 - (Topic 2)**

Which of the following files keeps track of all transactions that occur in an SQL Server database?

- A. Transaction Log
- B. Redo Log
- C. Archive Log
- D. Data File

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/enus/library/ms190925%28v=sql.110%29.aspx>

**Question No : 170 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: D**

**Question No : 171 - (Topic 2)**

You use Microsoft SQL Server 2016 to write code for a transaction that contains several statements.

There is high contention between readers and writers on several tables used by your transaction. You need to minimize the use of the tempdb space.

You also need to prevent reading queries from blocking writing queries.

Which isolation level should you use?

- A. SERIALIZABLE
- B. SNAPSHOT
- C. READ COMMITTED SNAPSHOT

**D. REPEATABLE READ**

**Answer: B**

**Question No : 172 - (Topic 2)**

If you are restoring and recovering a database, which of the following keywords must you specify if you intend to roll forward a transaction log backup after restoring a database?

- A. NOFINISH
- B. NORECOVERY
- C. TRANSACTIONLOG RECOVER
- D. NEXTLOG

**Answer: B**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms186858%28v=sql.110%29.aspx>

**Question No : 173 DRAG DROP - (Topic 2)**

You are configuring a Microsoft SQL Server 2016 server and setting up a new database.

You need to ensure that the following requirements are met:

Provide access to the database for a Windows group named CORP\Employees.

The database can be moved to another server with no additional changes to the security configuration of the database or server.

What should you do? (To answer, move the appropriate action or actions from the list of actions to the answer area and arrange them in the correct order.)

**Actions**

Create the database and set the Trustworthy setting to **ON**.

Create the database and set the Containment setting to **Partial**.

Create a login named CORP\Employees on the SQL Server instance.

Create a contained database user named CORP\Employees in the database.

Use sp\_configure to change the contained database authentication setting to 1.

Create a database user linked to the CORP\Employees login.

↑

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**Answer Area**

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**Answer:**

**Actions**

Create the database and set the Trustworthy setting to **ON**.

Create the database and set the Containment setting to **Partial**.

Create a login named CORP\Employees on the SQL Server instance.

Create a contained database user named CORP\Employees in the database.

Use sp\_configure to change the contained database authentication setting to 1.

Create a database user linked to the CORP\Employees login.

↑

↓

**Answer Area**

Use sp\_configure to change the contained database authentication setting to 1.

Create the database and set the Containment setting to **Partial**.

Create a contained database user named CORP\Employees in the database.

Create a database user linked to the CORP\Employees login.

### Explanation:

Use sp\_configure to change the contained database authentication setting to 1 Create the database and set the Containment setting to **Partial**.

Create a contained database user named CORP/Employees in the database.

References: <https://msdn.microsoft.com/enus/library/ff929139%28v=sql.110%29.aspx>  
[http://www.sqlcoffee.com/SQLServer2012\\_0009.htm](http://www.sqlcoffee.com/SQLServer2012_0009.htm)

### Question No : 174 - (Topic 2)

You administer a database that has User A, B and C.

User A must be able to create new tables and stored procedures, User B must be able to select, update, delete and insert data.

User C must be able to provide windows logins to the database

To which role or roles should you add the users?

- A. db\_accessadmin
- B. db\_ddladmin
- C. db\_datawriter
- D. db\_datareader
- E. db\_owner

**Answer: A,B,C,D**

**Question No : 175 - (Topic 2)**

Which of the following is NOT a method of failover for an SQL Server 2016 mirror?

- A. Automatic Failover
- B. Manual Failover
- C. Forced Failover
- D. Intermediate Failover

**Answer: D**

**Question No : 176 - (Topic 2)**

You are a database developer of a Microsoft SQL Server 2016 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.

SourceID	CustomerID	Customer Name
1	234	John Smith
3	7345	Jason Warren
3	4402	Susan Burk
2	866	Michael Allen

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));

**Answer: D**

#### **Question No : 177 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B**

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

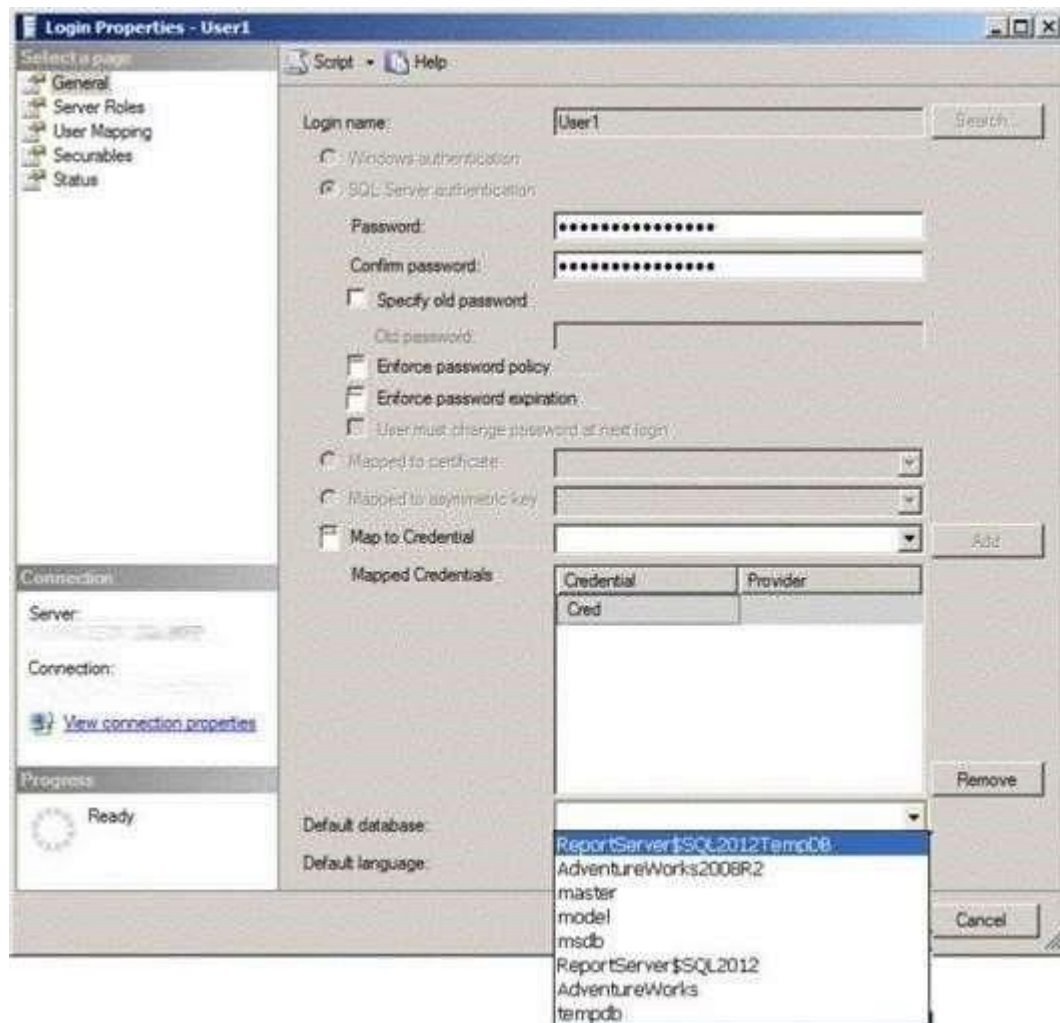
### Question No : 178 HOTSPOT - (Topic 2)

You administer a Microsoft SQL Server 2016 instance.

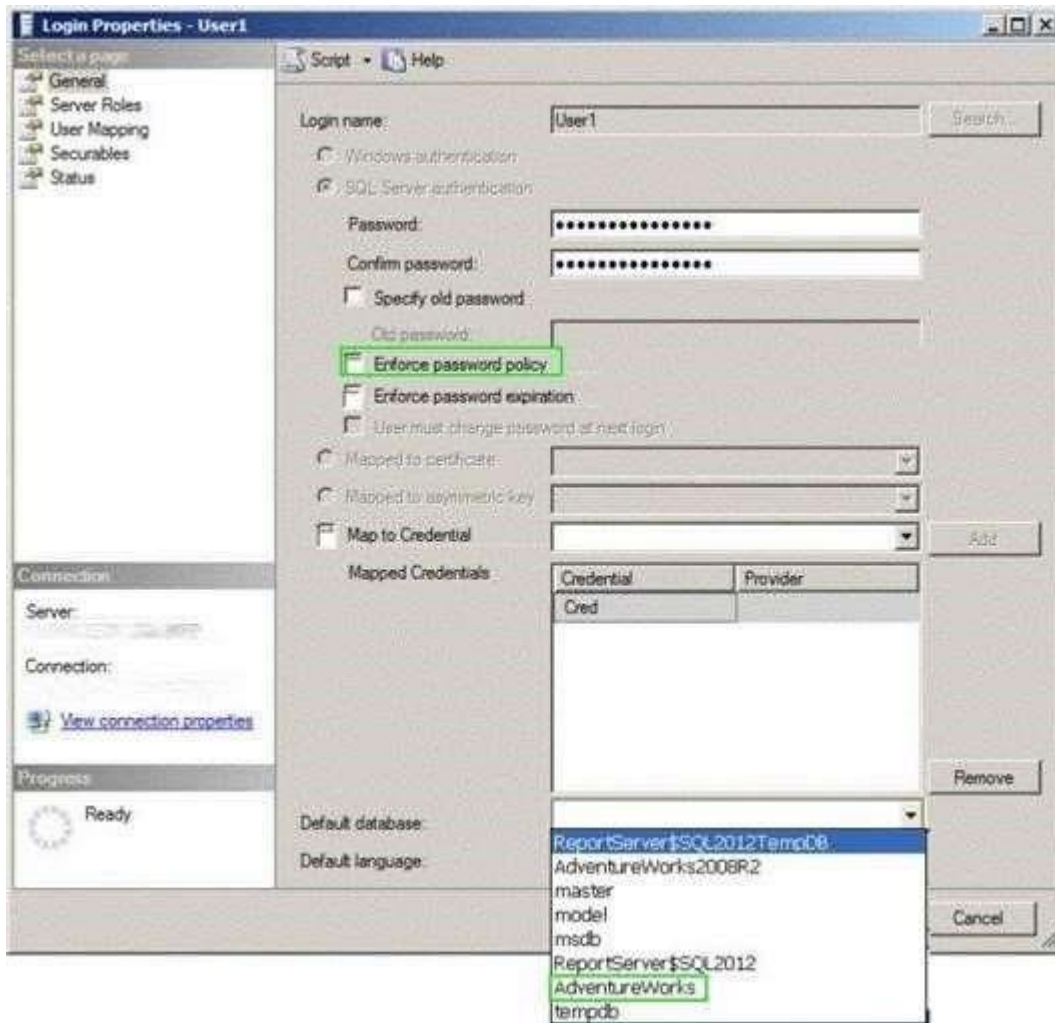
You need to configure an existing SQL Authenticated Login that meets the following requirements:

- ☐ Enforces password policy
- ☐ No password expiration enforcement
- ☐ Resets the default database to AdventureWorks database

Which option or options should you choose in the Login Properties of the login for User1?  
(To answer, configure the appropriate option or options in the dialog box in the answer area. )



Answer:



### Question No : 179 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 clustered instance that has two nodes named Node 1 and Node 2.

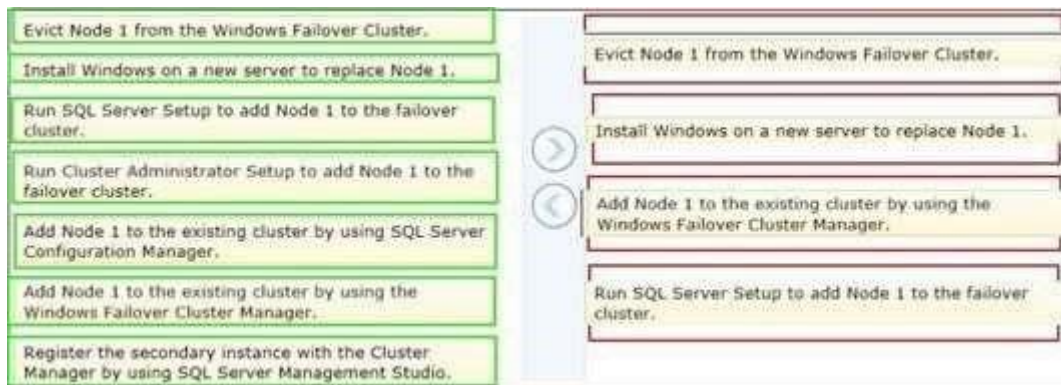
Node 1 fails and the cluster fails over to Node 2.

You need to replace Node 1 and add it to the cluster.

Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



**Answer:**



### Question No : 180 - (Topic 2)

You administer a Microsoft SQL Server 2016 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

**Answer: A**



### Question No : 181 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server database. Service accounts for SQL Agent are configured to use a local user.

A Microsoft SQL Server Integration Services (SSIS) job step has been created within a SQL Server Agent job.

The SSIS package accesses a network share when exporting data from a SQL Server database.

When you execute the SQL Server Agent job, it fails due to a permissions failure on a share on a remote server.

You need to ensure that the SQL Server Agent job can execute the SSIS package.

Which four actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Add a proxy that references the local user.

Add a proxy that references the credential.

Create a local user account and grant local administrator on the SQL Server instance.

Create a credential that references the local user.

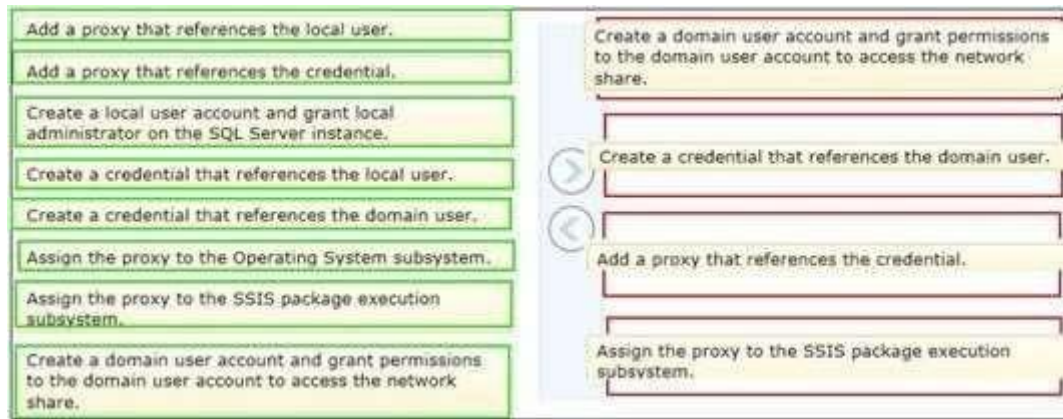
Create a credential that references the domain user.

Assign the proxy to the Operating System subsystem.

Assign the proxy to the SSIS package execution subsystem.

Create a domain user account and grant permissions to the domain user account to access the network share.

**Answer:**



### Question No : 182 - (Topic 2)

You have configured Resource Governor with three resource pools.

You have assigned the first resource pool a minimum CPU and memory value of 20%.

You have assigned the second resource pool a minimum CPU and memory value of 30%.

You want to assign maximum CPU and memory values to the third resource pool.

What is the maximum CPU and memory value you can assign to this resource pool?

- A. 30% B. 50%
- C. 70% D. 100%

**Answer: B**

### Question No : 183 - (Topic 2)

You are a database administrator for a Microsoft SQL Server 2016 instance.

You need to ensure that data can be replicated from a production server to two reporting servers in real time.

You also need to ensure that data on the reporting server is always accessible.

Which solution should you use?

- A. Availability Groups
- B. Extended Events
- C. Snapshot Replication
- D. Policy Based Management

**Answer: A**

**Question No : 184 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 server that has a database named Contoso. The Contoso database has a table named EmployeeSalary in a schema named HumanResources.

You need to create a script that writes audit events into the application log whenever data in the EmployeeSalary table is modified.

Which four Transact-SQL statements should you use? (To answer, move the appropriate statements from the list of statements to the answer area and arrange them in the correct order.)

```

CREATE DATABASE AUDIT SPECIFICATION
C_AuditSpec
FOR SERVER AUDIT C_Audit
ADD (INSERT ON
HumanResources.EmployeeSalary
BY dbo),
ADD (UPDATE ON
HumanResources.EmployeeSalary
BY dbo),
ADD (DELETE ON
HumanResources.EmployeeSalary
BY dbo)

ALTER DATABASE AUDIT SPECIFICATION
C_AuditSpec WITH (STATE=ON)

CREATE SERVER AUDIT SPECIFICATION
C_AuditSpec
FOR SERVER AUDIT C_Audit
ADD (SCHEMA_OBJECT_ACCESS_GROUP)

ALTER SERVER AUDIT SPECIFICATION C_AuditSpec
WITH (STATE=ON)

CREATE SERVER AUDIT C_Audit
TO FILE (FILEPATH = 'ApplicationLog')

ALTER SERVER AUDIT C_Audit
WITH (STATE = ON)

CREATE SERVER AUDIT C_Audit
TO APPLICATION_LOG

ALTER SERVER AUDIT C_Audit
WITH (STATE = ON)

CREATE DATABASE AUDIT SPECIFICATION
C_AuditSpec
FOR SERVER AUDIT C_Audit
ADD (INSERT ON
HumanResources.EmployeeSalary
BY public),
ADD (UPDATE ON
HumanResources.EmployeeSalary
BY public),
ADD (DELETE ON
HumanResources.EmployeeSalary
BY public)

ALTER DATABASE AUDIT SPECIFICATION
C_AuditSpec WITH (STATE=ON)

Use Master

Use Contoso

```

Answer:

<pre> CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (INSERT ON HumanResources.EmployeeSalary BY dbo), ADD (UPDATE ON HumanResources.EmployeeSalary BY dbo), ADD (DELETE ON HumanResources.EmployeeSalary BY dbo)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)  CREATE SERVER AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (SCHEMA_OBJECT_ACCESS_GROUP)  ALTER SERVER AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON)  CREATE SERVER AUDIT C_Audit TO FILE (FILEPATH = 'ApplicationLog')  ALTER SERVER AUDIT C_Audit WITH (STATE = ON)  CREATE SERVER AUDIT C_Audit TO APPLICATION_LOG  ALTER SERVER AUDIT C_Audit WITH (STATE = ON)  CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (INSERT ON HumanResources.EmployeeSalary BY public), ADD (UPDATE ON HumanResources.EmployeeSalary BY public), ADD (DELETE ON HumanResources.EmployeeSalary BY public)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON) </pre>	<pre> Use Master  CREATE SERVER AUDIT C_Audit TO APPLICATION_LOG  ALTER SERVER AUDIT C_Audit WITH (STATE = ON)  Use Contoso </pre>
<pre> CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (INSERT ON HumanResources.EmployeeSalary BY public), ADD (UPDATE ON HumanResources.EmployeeSalary BY public), ADD (DELETE ON HumanResources.EmployeeSalary BY public)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON) </pre>	<pre> CREATE DATABASE AUDIT SPECIFICATION C_AuditSpec FOR SERVER AUDIT C_Audit ADD (INSERT ON HumanResources.EmployeeSalary BY public), ADD (UPDATE ON HumanResources.EmployeeSalary BY public), ADD (DELETE ON HumanResources.EmployeeSalary BY public)  ALTER DATABASE AUDIT SPECIFICATION C_AuditSpec WITH (STATE=ON) </pre>
<pre> Use Master  Use Contoso </pre>	

## Explanation:

Box 1: Use Master

Box 2:

```

CREATE SERVER AUDIT C_Audit
TO APPLICATION_LOG

ALTER SERVER AUDIT C_Audit
WITH (STATE = ON)

```

Box 3: Use Contoso

4:

```

CREATE DATABASE AUDIT SPECIFICATION
C_AuditSpec
FOR SERVER AUDIT C_Audit
  ADD (INSERT ON
HumanResources.EmployeeSalary
  BY public),
  ADD (UPDATE ON
HumanResources.EmployeeSalary
  BY public),
  ADD (DELETE ON
HumanResources.EmployeeSalary
  BY public)

ALTER DATABASE AUDIT SPECIFICATION
C_AuditSpec WITH (STATE=ON)

```

Note:

- \* An audit must exist before creating a server audit specification for it. When a server auditspecification is created, it is in a disabled state.
- \* The general process for creating and using an audit is as follows.
  - ☞ Create an audit and define the target.
  - ☞ Create either a server audit specification or database audit specification that maps to the audit. Enable the audit specification.
  - ☞ Enable the audit.
  - ☞ Read the audit events by using the Windows Event Viewer, Log File Viewer, or the fn\_get\_audit\_file function.

\* (Box 2) Example:

Creating a server audit with a Windows Application log target with options

```

CREATE SERVER AUDIT HIPAA_Audit
TO APPLICATION_LOG
WITH ( QUEUE_DELAY = 1000, ON_FAILURE = SHUTDOWN);

```

\* Box 4 Example:

/\*Creates a server audit specification called "HIPPA\_Audit\_Specification" that audits failed logins for the SQL Server audit "HIPPA\_Audit" created above.

\*/

```

CREATE SERVER AUDIT SPECIFICATION HIPPA_Audit_Specification
FOR SERVER AUDIT HIPPA_Audit
ADD (FAILED_LOGIN_GROUP);
GO

```

-- Enables the audit.

```

ALTER SERVER AUDIT HIPAA_Audit
WITH (STATE = ON);

```

GO

**Question No : 185 - (Topic 2)**

You maintain several databases on a 32-bit Microsoft SQL Server 2005 instance on a Windows Server 2008 R2 64-bit server.

You need to migrate the databases to a 64-bit SQL Server 2016 instance on the same server. You also need to ensure that the new Transact-SQL functionality in SQL Server 2016 can be used in the database after the migration.

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

- A. Perform a side-by-side installation of a 32-bit SQL Server 2016 instance.
- B. Perform a side-by-side installation of a 64-bit SQL Server 2016 instance.
- C. Perform an in-place upgrade to 64-bit SQL Server 2016.
- D. Detach the database from the old instance and attach it to the new instance.
- E. Change the compatibility level of the database.

**Answer: B,D,E** Reference:

Use detach and attach operations to upgrade a SQL Server 2005, SQL Server 2008 or SQL Server 2008 R2 database in SQL Server 2016. After being attached to SQL Server 2016, the database is available immediately and is automatically upgraded.

**Question No : 186 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server database instance that uses transparent database encryption.

You plan to move the database from the current server to a new server by using Backup and Restore.

You need to ensure that the database can be restored to the new server. You also need to ensure that the database remains encrypted at all times.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Back up the Database	
Enable Transparent Database Encryption	
Backup the Private Key.	
Restore the Private Key	
Disable transparent database encryption	
Restore the Database	
Create a new Private Key from the key backup	
Use the Database Transfer wizard to move the database to the new server	

**Answer:**

Back up the Database	Back up the Database
Enable Transparent Database Encryption	
Backup the Private Key.	Backup the Private Key.
Restore the Private Key	Restore the Private Key
Disable transparent database encryption	
Restore the Database	Restore the Database
Create a new Private Key from the key backup	
Use the Database Transfer wizard to move the database to the new server	

**Question No : 187 - (Topic 2)**

You are planning on deploying a server that will be dedicated for ETL (Extraction, Transformation, and Loading) processes.

You want to ensure that SSIS (SQL Server Integration Services) packages will run on this dedicated ETL server and not on any other server on which they were started. Which of the following features must you install on the ETL server in addition to SSIS to accomplish this goal?

- A. Database Engine
- B. SQL Server Reporting Services
- C. SQL Server Analysis Services
- D. Client Tools SDK

**Answer: A**

**Question No : 188 - (Topic 2)**

You administer a Microsoft SQL Server 2016.

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. `SELECT * FROM sys.dm_exec_sessions WHERE session_id = 60`
- B. `DBCC INPUTBUFFER (60)`
- C. `EXEC sp_helpdb 60`
- D. `SELECT * FROM sys.dm_exec_request WHERE session_id = 60`

**Answer: D**

**Question No : 189 - (Topic 2)**

Which of the following SQL Server 2016 indexes is ordered independently of the actual physical order of the table data on which the index is based?

- A. CLUSTERED
- B. BITMAP
- C. NONCLUSTERED
- D. IND\_ORDERED

**Answer: C**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms188783%28v=sql.110%29.aspx>

**Question No : 190 - (Topic 2)**

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.

**Answer: D**

**Question No : 191 - (Topic 2)**

You administer two Microsoft SQL Server 2016 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.

**Answer: B**

**Question No : 192 - (Topic 2)**

You use Microsoft SQL Server 2016 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

**Answer: D**

**Question No : 193 - (Topic 2)**

Which of the following is NOT a database role that you can assign users in SQL Server 2016?

- A. db\_ddladmin
- B. db\_owner
- C. db\_datawriter
- D. db\_databaseadmin

**Answer: D**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms189121%28v=sql.110%29.aspx>

**Question No : 194 - (Topic 2)**

You administer a SQL Server 2016 database instance.

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

Which user account should you use?

- A. The BUILTIN\LocalService account
- B. A domain user
- C. A local administrative user
- D. The BUILTIN\NetworkService account

**Answer: B**

**Question No : 195 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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 tail-log 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

**Answer: B**

**Question No : 196 HOTSPOT - (Topic 2)**

You administer a Microsoft SQL Server database.

The database is in the Simple recovery mode.

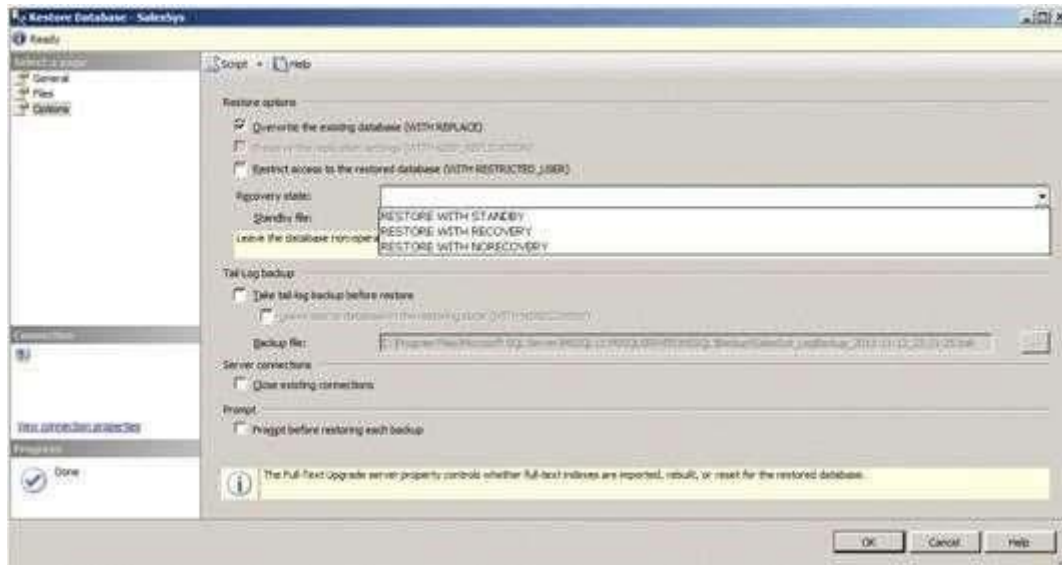
You schedule the following backup plan:

- ☐ Full backup every day at midnight
- ☐ Differential backups every hour on the hour, except at midnight

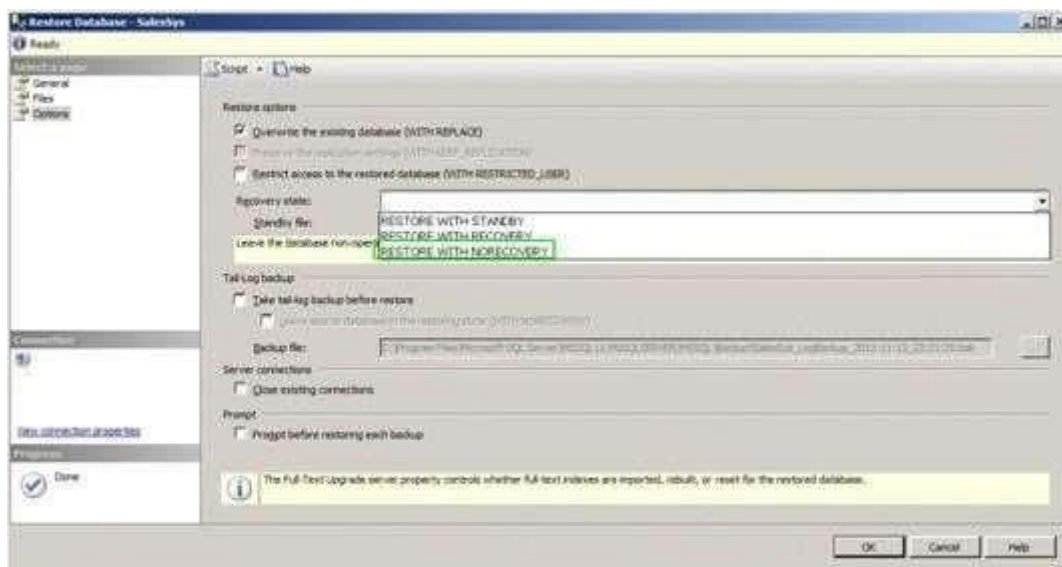
The database fails at 20:45 hours.

You need to use SQL Server Management Studio (SSMS) to begin restoring the database to a new server instance with a minimum amount of data loss.

Which options should you select on the Options page of the Restore Database window? (To answer, configure the appropriate option or options in the dialog box in the answer area.)



**Answer:**



**Question No : 197 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: D**

#### **Question No : 198 - (Topic 2)**

Which of the following SQL Server 2016 tools coordinates transactions across SQL Servers in a clustered environment?

- A. SQL Server Profiler
- B. SQL Server Query Optimizer
- C. SQL Server Management Studio
- D. Microsoft Distributed Transaction Coordinator

**Answer: D**

**Explanation:** References:

<http://blogs.msdn.com/b/alwaysonpro/archive/2014/01/15/msdtc-recommendationsonsqlfailover-cluster.aspx>

#### **Question No : 199 - (Topic 2)**

You work as a Database Administrator (DBA) at ABC.com. The infrastructure includes servers running Windows Server 2008 R2 and Microsoft SQL Server 2016. The company uses several custom applications that store data in databases on the Microsoft SQL Server

2012 servers.

A full backup of all databases is taken every night at midnight.

A differential backup of all databases is taken on the hour every hour starting at 3am until the last backup at 11pm.

A log backup is taken every 15 minutes for databases configured with the Full Recovery Model.

One application named ABCApp1 stores data in a database named ABCApp1DB.

ABCApp1DB is configured with the Simple Recovery Model. ABCApp1DB fails at 3:25am.

You discover that the last differential backup of ABCApp1DB failed.

You need to restore ABCApp1DB from backup as quickly as possible and minimize data loss.

Which of the following steps should you perform to restore ABCApp1DB? (Choose one or more answers).

- A. Restore the latest full backup.
- B. Restore the latest differential backup
- C. Restore the latest log backup
- D. Restore each differential backup taken since the last full backup.
- E. Restore each log backup since the last full backup.

**Answer: A**

<b>Question No : 200 - (Topic 2)</b>
--------------------------------------

You want to remove SQL Server Integration Services from a server running the Windows Server 2008 R2 operating system that also has the Database Engine and SQL Server Analysis Services installed.

Which of the following tools can you use to accomplish this goal?

- A. SQL Server Management Studio
- B. SQL Server Configuration Manager
- C. Add/Remove Programs in Control Panel
- D. SQL Server Installation Center

**Answer: C**

**Question No : 201 - (Topic 2)**

Which of the following statements will create an index called "SalesDate" on the DATEOFSALE column on the SALES table residing in the WAREHOUSE database?

- A. CREATE INDEX SalesDate ON SALES (DATEOFSALE);
- B. MAKE INDEX SalesDate ON SALES (DATEOFSALE);
- C. CREATE INDEX ON SALES (DATEOFSALE);
- D. CREATE INDEX SalesDate ON SALES +DATEOFSALE;

**Answer: A**

**Explanation:** References: <https://msdn.microsoft.com/en-us/library/ms188783%28v=sql.110%29.aspx>

**Question No : 202 - (Topic 2)**

Which of the following is NOT a valid recovery model for an SQL 2012 database?

- A. ArchiveLog
- B. Simple
- C. Bulk-logged
- D. Full

**Answer: A**

**Explanation:** References: <https://msdn.microsoft.com/en-us/library/ms189275%28v=sql.110%29.aspx>

**Question No : 203 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: C**

**Question No : 204 - (Topic 2)**

You develop a database for a travel application.

You need to design tables and other database objects.

You create a stored procedure.

You need to supply the stored procedure with multiple event names and their dates as parameters.

What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Answer: E**

**Question No : 205 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: G**

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

**Question No : 206 - (Topic 2)**

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\_Reporting FROM DISK = 'D:\Orders.bak'
- B. BACKUP DATABASE Orders TO DISK = 'D:\Orders.bak' CREATE DATABASE Orders\_Reporting FROM 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'

**Answer: C**

#### Question No : 207 - (Topic 2)

Which of the following conditions must exist prior to restoring a system database in SQL Server 2016?

- A. The hard drive must be reformatted.
- B. You must detach the user databases from the SQL 2012 instance.
- C. The SQL Server 2016 instance must be started in single-user mode.
- D. The SQL Server 2016 instance must be removed.

**Answer: C**

**Explanation:** References:

[https://msdn.microsoft.com/enus/library/ms188236\(v=sql.110\).aspx](https://msdn.microsoft.com/enus/library/ms188236(v=sql.110).aspx)

#### Question No : 208 - (Topic 2)

You install a Microsoft SQL Server 2016 instance. The instance will store data extracted from two database running on windows Azure SQL Database.

You hire a data steward to perform interactive data cleaning and ad hoc querying and updating of the data.

You need to ensure that the data steward is given the correct client tools to perform these tasks.

Which set of tools should you install?

- A. SQL Server Management Studio and Distributed Replay Client
- B. Master Data Services and Data Quality Client
- C. Data Quality Client and Distributed Replay Client
- D. Data Quality Client and SQL Server Management Studio

**Answer: D**

**Question No : 209 - (Topic 2)**

You want to reproduce the same SQL Server 2016 installation configuration across five servers.

Which of the following files will you generate by using SQL Server Setup to accomplish this goal?

- A. Configuration.xml
- B. Setup.ini
- C. Setup.xml
- D. ConfigurationFile.ini

**Answer: D**

**Question No : 210 DRAG DROP - (Topic 2)**

You use a Microsoft SQL Server 2016 database. You need to create an indexed view within the database for a report that displays Customer Name and the total revenue for that customer.

Which four T-SQL statements should you use? (To answer, move the appropriate SQL statements from the list of statements to the answer area and arrange them in the correct order.)

## Order List Title

## Answer Choices Title

```
CREATE VIEW  
Sales.vwCustomerRevenue  
AS  
WITH SCHEMABINDING
```

```
CREATE VIEW  
Sales.vwCustomerRevenue  
WITH SCHEMABINDING  
AS
```

```
SELECT  
O.CustomerID  
, C.CustomerName  
, SUM (O.SubTotal) AS  
Customer Total  
, COUNT_BIG ( * ) AS  
RecCount  
FROM  
Sales.SalesOrderHeader AS  
O  
JOIN Sales.Customer AS C  
ON C.CustomerID =  
O.CustomerID
```

```
GROUP BY  
O.CustomerID  
, C.CustomerName
```

```
GO  
CREATE UNIQUE  
CLUSTERED INDEX  
idx_vwCustomerRevenue  
ON  
Sales.vwCustomerRevenue  
(CustomerID);
```

```
GO  
CREATE UNIQUE INDEX  
idx_vwCustomerRevenue  
ON  
Sales.vwCustomerRevenue  
(CustomerID);
```

Answer:

## Order List Title

```
CREATE VIEW
Sales.vwCustomerRevenue
AS
WITH SCHEMABINDING
```

```
CREATE VIEW
Sales.vwCustomerRevenue
WITH SCHEMABINDING
AS
```

```
SELECT
O.CustomerID
, C.CustomerName
, SUM (O.SubTotal) AS
Customer Total
, COUNT_BIG ( * ) AS
RecCount
FROM
Sales.SalesOrderHeader AS
O
JOIN Sales.Customer AS C
ON C.CustomerID =
O.CustomerID
```

```
GROUP BY
O.CustomerID
, C.CustomerName
```

```
GO
CREATE UNIQUE
CLUSTERED INDEX
idx_vwCustomerRevenue
ON
Sales.vwCustomerRevenue
(CustomerID);
```

```
GO
CREATE UNIQUE INDEX
idx_vwCustomerRevenue
ON
Sales.vwCustomerRevenue
(CustomerID);
```

## Answer Choices Title

```
CREATE VIEW
Sales.vwCustomerRevenue
WITH SCHEMABINDING
AS
```

```
SELECT
O.CustomerID
, C.CustomerName
, SUM (O.SubTotal) AS
Customer Total
, COUNT_BIG ( * ) AS
RecCount
FROM
Sales.SalesOrderHeader AS
O
JOIN Sales.Customer AS C
ON C.CustomerID =
O.CustomerID
```

```
GROUP BY
O.CustomerID
, C.CustomerName
```

```
GO
CREATE UNIQUE
CLUSTERED INDEX
idx_vwCustomerRevenue
ON
Sales.vwCustomerRevenue
(CustomerID);
```

**Question No : 211 - (Topic 2)** You have three tables that contain data for vendors, customers, and agents. You create a view that is used to look up telephone numbers for these companies.

The view has the following definition:

```
Create view apt.vwCompanyPhoneList
(Source, CompanyID, CompanyNumber,
 LastName, FirstName, BusinessName, Phone)
as

SELECT 'Customer' as Source
    , CustomerID
    , CustomerNumber
    , CustomerLastName
    , CustomerFirstName
    , CustomerBusinessName
    , Phone
FROM apt.Customer
UNION ALL
SELECT 'Agent' as Source
    , AgentID
    , AgentNumber
    , AgentLastName
    , AgentFirstName
    , AgentBusinessName
    , Phone
FROM apt.Agent
UNION ALL
SELECT 'Vendor' as Source
    , VendorID
    , VendorNumber
    , VendorLastName
    , VendorFirstName
    , VendorBusinessName
    , Phone
FROM apt.Vendor
GO
```

You need to ensure that users can update only the phone numbers by using this view.  
What should you do?

- A.** Alter the view. Use the EXPAND VIEWS query hint along with each SELECT statement.
- B.** Drop the view. Re-create the view by using the SCHEMABINDING clause, and then create an index on the view.
- C.** Create an AFTER UPDATE trigger on the view.
- D.** Create an INSTEAD OF UPDATE trigger on the view.

**Answer: D**

### **Question No : 212 - (Topic 2)**

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. **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.

**Answer: C**

**Question No : 213 - (Topic 2)**

You administer a Microsoft SQL Server 2016 Enterprise Edition server that uses 64 cores.

You discover performance issues when complex calculations are performed on large amounts of data under heavy system load.

You need to limit the number of cores that handle the processing.

What should you configure?

**A.** Max worker threads

**B.** Processor affinity

**C.** I/O affinity

**D.** Lightweight pooling

**Answer: B**

**Question No : 214 - (Topic 2)**

In which of the following statements about audit information stored in an SQL Server 2016 environment is TRUE?

**A.** It is located in a file specified in the File Path property of the Audit.

- B. It is located in the Audit table in the MSDB database.
- C. Each login has an audit record, which is viewable under Logins -> Audit.
- D. SQL 2012 does not store any audit information.

**Answer: A**

**Explanation:** References: [https://msdn.microsoft.com/en-us/library/cc280525\(v=sql.110\).aspx](https://msdn.microsoft.com/en-us/library/cc280525(v=sql.110).aspx)

#### Question No : 215 - (Topic 2)

You administer a single server that contains a Microsoft SQL Server 2016 default instance on which several production databases have been deployed.

You plan to install a new ticketing application that requires the deployment of a database on the server. The SQL login for this application requires sysadmin permissions.

You need to ensure that the login for the ticketing application cannot access other production databases.

What should you do?

- A. Use the SQL Server default instance and enable Contained Databases.
- B. Use the SQL Server default instance and configure a user-defined server role. Add the login for the ticketing application to this role.
- C. Install a new named SQL Server instance on the server.
- D. Install a new default SQL Server instance on the server.

**Answer: C**

#### Question No : 216 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 database instance that uses transparent database encryption.

You plan to move the database from the current server to a new server by using Backup and Restore.

**Actions**

Restore the database

Back up the database

Restore the Private Key

Back up the Private Key

Enable transparent database encryption

Enable transparent database encryption

Create a new Private Key from the key backup

Use the Database Transfer wizard to move the database to new server

>
<

**Answer Area**

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v

**Answer:**

**Actions**

Restore the database

Back up the database

Restore the Private Key

Back up the Private Key

Enable transparent database encryption

Enable transparent database encryption

Create a new Private Key from the key backup

Use the Database Transfer wizard to move the database to new server

>
<

**Answer Area**

Back up the Private Key

Back up the database

Restore the Private Key

Restore the database

**Explanation:**

Backup the Private Key  
 Backup the Database  
 Restore the Private Key  
 Restore the Database

References: <http://sqlsailor.com/2011/12/29/tdetransparent-data-encryption-in-sqlserver-2012-rc-0/>

**Question No : 217 - (Topic 2)**

You develop a database for a travel application.

You need to design tables and other database objects.

You create the Airline\_Schedules table.

You need to store the departure and arrival dates and times of flights along with time zone information.

What should you do?

- A. Use the CAST function.
- B. Use the DATE data type.
- C. Use the FORMAT function.
- D. Use an appropriate collation.
- E. Use a user-defined table type.
- F. Use the VARBINARY data type.
- G. Use the DATETIME data type.
- H. Use the DATETIME2 data type.
- I. Use the DATETIMEOFFSET data type.
- J. Use the TODATETIMEOFFSET function.

**Answer: I** Reference:

<http://msdn.microsoft.com/en-us/library/ff848733.aspx>

<http://msdn.microsoft.com/en-us/library/bb630289.aspx>

<b>Question No : 218 DRAG DROP - (Topic 2)</b>
--

You administer a Microsoft SQL Server database.

You want to import data from a text file to the database.

You need to ensure that the following requirements are met:

- ☞ Data import is performed by using a stored procedure.
- ☞ Data is loaded as a unit and is minimally logged.

Which data import command and recovery model should you choose? (To answer, drag the appropriate data import command or recovery model to the appropriate location or locations in the answer area. Each data import command or recovery model may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.)

Command/Recovery Model Name	Command/Recovery Model
BCP	Data import command
BULK INSERT	Recovery model
Bulk-logged	
OPENDATASOURCE	
Full	

**Answer:**

Command/Recovery Model Name	Command/Recovery Model
BCP	Data import command
BULK INSERT	Recovery model
Bulk-logged	
OPENDATASOURCE	
Full	

### Question No : 219 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 database called Human\_Resources. The database contains a table named dbo.Salary.

You need to ensure that all read activity against dbo.Salary is audited and written to the Windows Security Log.

What should you do? (To answer, move the three appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Enable the Audit and the Audit Specification.	
Create a new Audit. For destination, choose <b>File</b> .	
Create a new Audit. For destination, choose <b>Security Log</b> .	
Create a new Server Audit Specification. For Audit Action Type, choose <b>DATABASE_OBJECT_ACCESS_GROUP</b> .	
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>Select</b> , and for Object Class, choose <b>Database</b> .	
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>References</b> , and for Object Class, choose <b>Database</b> .	
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>Select</b> ; for Object Class, choose <b>Object</b> ; and for Object Name, choose <b>Salary</b> .	

Answer:

Enable the Audit and the Audit Specification.	
Create a new Audit. For destination, choose <b>File</b> .	Create a new Audit. For destination, choose <b>Security Log</b> .
Create a new Audit. For destination, choose <b>Security Log</b> .	
Create a new Server Audit Specification. For Audit Action Type, choose <b>DATABASE_OBJECT_ACCESS_GROUP</b> .	Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>Select</b> ; for Object Class, choose <b>Object</b> ; and for Object Name, choose <b>Salary</b> .
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>Select</b> , and for Object Class, choose <b>Database</b> .	
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>References</b> , and for Object Class, choose <b>Database</b> .	
Create a new Database Audit Specification on Human_Resources. For Audit Action Type, choose <b>Select</b> ; for Object Class, choose <b>Object</b> ; and for Object Name, choose <b>Salary</b> .	Enable the Audit and the Audit Specification.

Explanation:

Box 1:

Create a new Audit. For destination, choose **Security Log**.

Box 2:

Create a new Database Audit Specification on Human\_Resources. For Audit Action Type, choose **Select**; for Object Class, choose **Object**; and for Object Name, choose **Salary**.

Box 3:

Enable the Audit and the Audit Specification.

Note:

- \* An audit must exist before creating a server audit specification for it. When a server auditspecification is created, it is in a disabled state.
- \* The general process for creating and using an audit is as follows.
  - ☞ Create an audit and define the target.
  - ☞ Create either a server audit specification or database audit specification that maps to the audit. Enable the audit specification.
  - ☞ Enable the audit.
  - ☞ Read the audit events by using the Windows Event Viewer, Log File Viewer, or the fn\_get\_audit\_file function.

\* Example (step 2) (we should audit SELECT on the Salary table):

```
USE AdventureWorks2012 ;
```

```
GO
```

```
-- Create the database audit specification.
```

```
CREATE DATABASE AUDIT SPECIFICATION Audit_Pay_Tables
```

```
FOR SERVER AUDIT Payrole_Security_Audit
```

```
ADD (SELECT, INSERT
```

```
ON HumanResources.EmployeePayHistory BY dbo )
```

```
WITH (STATE = ON);
```

```
GO
```

### Question No : 220 DRAG DROP - (Topic 2)

You are a database administrator for a Microsoft SQL Server 2016 environment that contains two SQL Server instances named Server01 and Server02. The Contoso database is located on Server01. Through database mirroring, a copy of the Contoso database is on Server02.

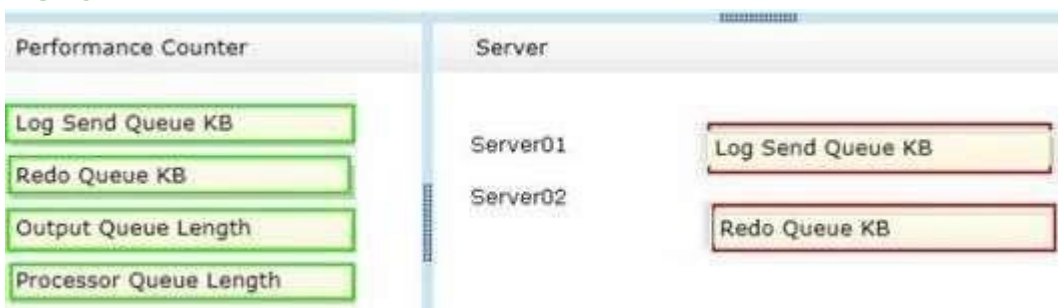
During the last manual failover of database mirroring, the recovery took longer than usual.

You need to determine where the synchronization bottleneck is for the database mirroring topology.

Which performance counter or counters should you use for each server? (To answer, drag the appropriate performance counter or counters to their corresponding server or servers in the answer area. Answer choices may be used once, more than once, or not at all. Answer targets may be used once or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.)



**Answer:**



Explanation: <https://msdn.microsoft.com/en-us/library/ms189931.aspx>

<b>Log Send Queue KB</b>	Total number of kilobytes of log that have not yet been sent to the mirror server.
<b>Mirrored Write Transactions/sec</b>	Number of transactions that wrote to the mirrored database and waited for the log to be sent to the mirror in order to commit, in the last second.  This counter is incremented only when the principal server is actively sending log records to the mirror server.
<b>Pages Sent/sec</b>	Number of pages sent per second.
<b>Receives/sec</b>	Number of mirroring messages received per second.
<b>Redo Bytes/sec</b>	Number of bytes of log rolled forward on the mirror database per second.
<b>Redo Queue KB</b>	Total number of kilobytes of hardened log that currently remain to be applied to the mirror database to roll it forward. This is sent to the Principal from the Mirror.

**Question No : 221 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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.

**Answer: B,D,F**

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

**Question No : 222 - (Topic 2)**

Your database contains tables named Products and ProductsPriceLog. The Products table contains columns named ProductCode and Price. The ProductsPriceLog table contains columns named ProductCode, OldPrice, and NewPrice. The ProductsPriceLog table stores the previous price in the OldPrice column and the new price in the NewPrice column.

You need to increase the values in the Price column of all products in the Products table by 5 percent.

You also need to log the changes to the ProductsPriceLog table.

Which Transact-SQL query should you use?

**A.** UPDATE Products SET Price = Price \* 1.05  
 OUTPUT inserted.ProductCode, deleted.Price, inserted.Price  
 INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

**B.** UPDATE Products SET Price = Price \* 1.05  
 OUTPUT inserted.ProductCode, inserted.Price, deleted.Price  
 INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

**C.** UPDATE Products SET Price = Price \* 1.05  
 OUTPUT inserted.ProductCode, deleted.Price, inserted.Price \*  
 INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

**D.** UPDATE Products SET Price = Price \* 1.05  
 INSERT INTO ProductsPriceLog (ProductCode, CldPnce, NewPrice;  
 SELECT ProductCode, Price, Price \* 1.05 FROM Products

**Answer: A**

Reference: <http://msdn.microsoft.com/en-us/library/ms177564.aspx>

### Question No : 223 - (Topic 2)

You administer a Microsoft SQL Server 2016 database named Orders.

Orders contain 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

**Answer: B**

#### **Question No : 224 - (Topic 2)**

You have installed the SQL Server Integration Services (SSIS) feature on a server running Windows Server 2008 R2 SP1.

Which of the following features must you install if you want to ensure that you can run packages in 32-bit mode?

- A.** Client Tools SDK
- B.** Data Quality Client
- C.** SQL Server Data Tools
- D.** Client Tools Backwards Compatibility

**Answer: C**

**Question No : 225 - (Topic 2)**

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	<ul style="list-style-type: none"><li>• Sales.mdf</li></ul>
XACTIONS	<ul style="list-style-type: none"><li>• Sales_1.ndf</li><li>• Sales_2.ndf</li><li>• Sales_3.ndf</li></ul>
ARCHIVES	<ul style="list-style-type: none"><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.

**Answer: A**

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 No : 226 - (Topic 2)

Which of the following is the default port for an SQL Server database to communicate over?

- A. 1433
- B. 21
- C. 1344
- D. 1521

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms177440%28v=sql.110%29.aspx>

#### Question No : 227 - (Topic 2)

Your database contains a table named SalesOrders. The table includes a DATETIME column named OrderTime that stores the date and time each order is placed. There is a

non-clustered index on the OrderTime column. The business team wants a report that displays the total number of orders placed 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 SalesOrders  
WHERE OrderTime = CONVERT(DATE, GETDATE())
- B.** SELECT COUNT(\*) FROM SalesOrders WHERE OrderTime = GETDATE() **C.**  
SELECT COUNT(\*) FROM SalesOrders  
WHERE CONVERT(VARCHAR, OrderTime, 112) = CONVERT(VARCHAR, GETDATE(), 112))
- D.** SELECT COUNT(\*) FROM SalesOrders  
WHERE OrderTime >= CONVERT(DATE, GETDATE())  
AND OrderTime < DATEADD(DAY, CONVERT(DATE, GETDATE()))

**Answer: D**

#### **Question No : 228 - (Topic 2)**

You develop a Microsoft SQL Server 2016 database that contains a heap named OrdersHistorical.

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

**Answer: E** Reference:

<http://technet.microsoft.com/en-us/library/ms189857.aspx>

<http://msdn.microsoft.com/en-us/library/ms187373.aspx>

### Question No : 229 DRAG DROP - (Topic 2)

You administer a Microsoft SQL Server 2016 server.

You need to install the Power View components on a stand-alone server.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



**Answer:**



**Question No : 230 - (Topic 2)**

You are a database administrator for a Microsoft SQL Server 2016 instance.

You need to ensure that data can be migrated from a production server to two reporting servers with minimal data to ensure that data on the reporting server is always accessible which solution should you use?

- A. Database snapshot
- B. Log Shipping
- C. Change Data Capture
- D. Availability Groups

**Answer: D**

**Question No : 231 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: A**

**Question No : 232 DRAG DROP - (Topic 2)**

You are migrating an OLTP database from Windows Azure SQL Database to on-premise. You are planning the installation of a Microsoft SQL Server 2016 server failover cluster. The server has the following partitions:

Disk Subsystem	Storage Location	RAID Level	Capacity
C:	Local	1	100GB
D:	Local SSD	1	128GB
Partition(1)	SAN	10	500GB
Partition(2)	SAN	5	500GB

You install the operating system on the C: drive.

The database solution will use row versioning, triggers, and cursors. The tempdb database cannot be placed on the same disk subsystem as the OLTP database.

The OLTP database needs to be on the fastest disk subsystem possible. The database is currently 200GB in size. It will not substantially increase in size in the next 3 years.

You need to plan the usage of the disk subsystems.

To which hard disk should each database belong? (To answer, drag the appropriate database or databases to their corresponding hard disk or disks in the answer area. Answer choices may be used once, more than once, or not at all. Answer targets may be used once or not at all. Additionally, you may need to drag the split bar between panes or scroll to view content.)

Database	Hard Disk
C: drive	SQL Server binaries
D: drive	OLTP database
Partition(1)	tempdb database
Partition(2)	database backups

**Answer:**



**Question No : 233 - (Topic 2)**

You administer a Windows 2008 server hosting an instance of Microsoft SQL Server 2016 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 CustomerOrder DISABLE
- B. ALTER INDEX IX\_OrderDateON CustomerOrder ENABLE
- C. ALTER INDEX IX\_OrderDateON CustomerOrder REORGANIZE
- D. ALTER INDEX IX\_OrderDateON CustomerOrder REBUILD

**Answer: C**

**Question No : 234 - (Topic 2)**

Which of the following is required in order for a differential backup to be useful for recovery purposes?

- A. A full backup taken previous to the differential backup.
- B. Hard drive space that is 2 times the size of the database you want to restore.
- C. Less than 1000 database transactions an hour.
- D. A full backup taken after the differential backup.

**Answer: A**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms175526%28v=sql.110%29.aspx>

**Question No : 235 - (Topic 2)**

Which of the following SQL Server 2016 database is NOT created by default in a new installation?

- A. model
- B. msdb
- C. tempdb
- D. sql
- E. master

**Answer: D**

**Question No : 236 - (Topic 2)**

You install a Microsoft SQL Server 2016 instance.

The instance will store data extracted from two databases running on Windows Azure SQL Database.

You hire a data steward to perform interactive data cleansing and ad hoc querying and updating of the data.

You need to ensure that the data steward is given the correct client tools to perform these tasks.

Which set of tools should you install?

- A. SQL Server Management Studio and Distributed Replay Client
- B. Data Quality Client and SQL Server Data Tools
- C. Data Quality Client and Distributed Replay Client
- D. SQL Server Management Studio and Master Data Services

**Answer: B**

**Question No : 237 - (Topic 2)**

You administer a Microsoft SQL Server environment. You purchase a new server and plan to migrate your database from SQL Server 2008 to SQL Server 2016.

You want to evaluate to prepare for possible conflicts and issues that may arise during or after the migration.

Which SQL Server tool should you use?

- A. Distributed Replay
- B. Migration Assistant
- C. Data Tools
- D. Upgrade Advisor

**Answer: D**

**Question No : 238 - (Topic 2)**

You develop a Microsoft SQL Server 2016 database. The database is used by two web applications that access a table named Products. You want to create an object that will prevent the applications from accessing the table directly while still providing access to the required data.

You need to ensure that the following requirements are met:

- ☞ Future modifications to the table definition will not affect the applications' ability to access data.
- ☞ The new object can accommodate data retrieval and data modification.

You need to achieve this goal by using the minimum amount of changes to the applications.

What should you create for each application?

- A. Synonyms
- B. Common table expressions
- C. Views
- D. Temporary tables

**Answer: C**

Reference: <http://msdn.microsoft.com/en-us/library/ms190174.aspx>

#### **Question No : 239 - (Topic 2)**

Which of the following file systems is supported for an SQL Server 2016 installation?

- A. EXT4
- B. NTFS
- C. FAT16
- D. EXT3

**Answer: B**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms143506%28v=sql.110%29.aspx#storagetypes>

**Question No : 240 - (Topic 2)**

You administer a Microsoft SQL Server 2016 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

**Answer: D**

**Question No : 241 - (Topic 2)**

You are creating an application that will connect to the AgentPortal database by using a SQL login named AgentPortalUser. Stored procedures in the database will use sp\_send\_dbmail to send email messages.

You create a user account in the msdb database for the AgentPortalUser login. You use the Database Mail Configuration Wizard to create a Database Mail profile. Security has not been configured for the Database Mail profile.

You need to ensure that AgentPortalUser can send email messages.

What should you do?

- A.** In the Database Mail Configuration Wizard, configure the Database Mail profile as a private profile for the AgentPortalUser account.
- B.** Disable the guest user in the msdb database.

- C. Use the sysmail\_help\_profileaccount\_sp stored procedure to add accounts to the Database Mail profile.
- D. In the Database Mail Configuration Wizard, create an email account for each recipient's email address in the Database Mail profile.

**Answer: A**

Reference: <http://msdn.microsoft.com/en-us/library/ms189635.aspx>

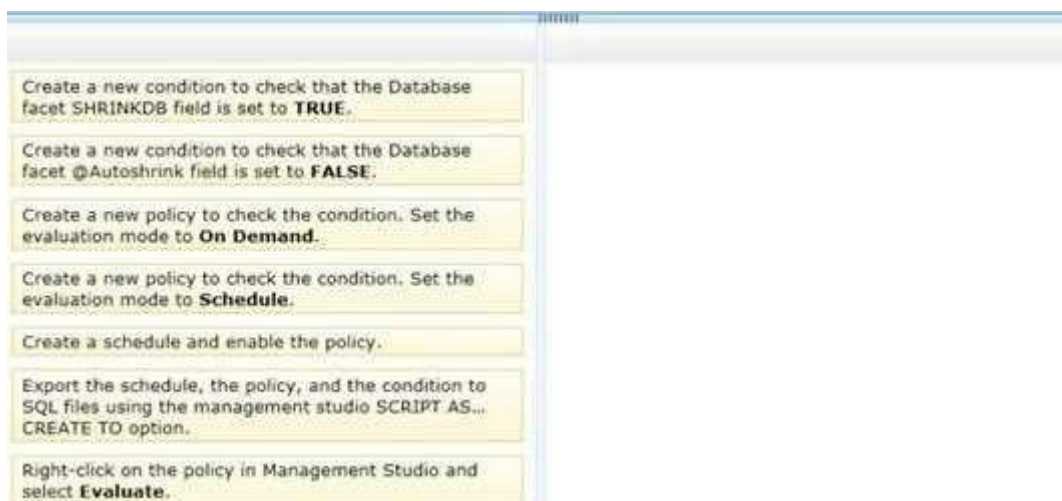
### Question No : 242 DRAG DROP - (Topic 2)

You administer several Microsoft SQL Server 2016 servers.

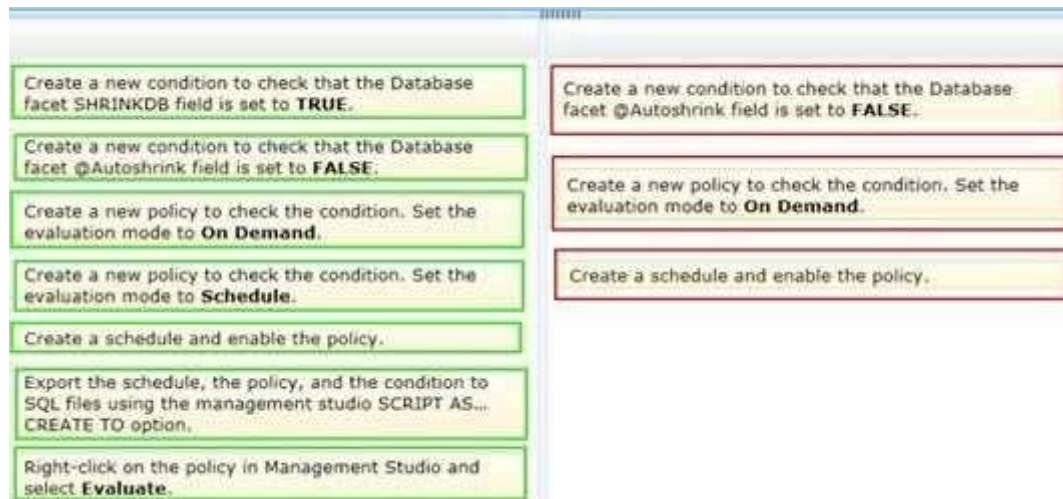
You want to run scheduled checks to confirm that the databases on the servers are not configured to AutoShrink.

You need to create a policy to check the condition.

What should you do? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)



**Answer:**



### Explanation:

Box 1:

Create a new condition to check that the Database facet @Autoshrink field is set to **FALSE**.

Box 2:

Create a new policy to check the condition. Set the evaluation mode to **On Demand**.

Box 3:

Create a schedule and enable the policy.

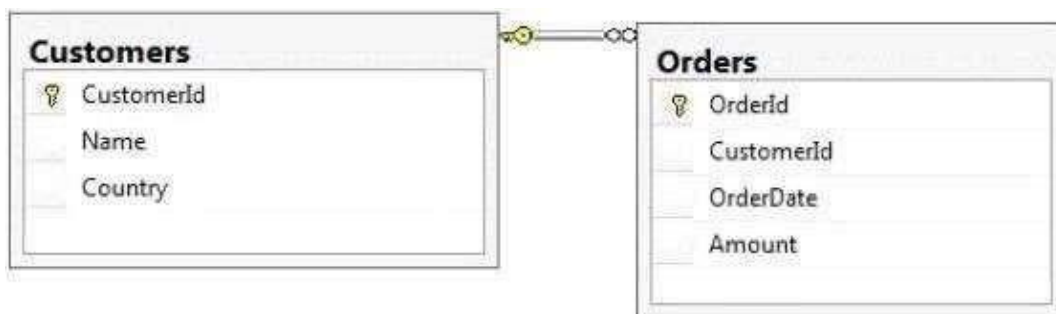
Note:

- \* @autoshrink is used to enable/disable the autoshrink feature.
- \* The Evaluation Mode defines the combination of 1) when the policy will be evaluated and 2) what the system will do in case of policy violation. The following evaluation modes are supported:

Evaluation Mode	When to Check	Action upon Violation
On Demand	On demand only	Users can choose to configure the system to comply to the policy
On Schedule	Periodically according to the specified schedule	log
On Change – Log only	When there is a relevant (DDL) change to the DBMS	log
On Change – Prevent	When there is a relevant (DDL) change to the DBMS	Roll back the transaction

### Question No : 243 - (Topic 2)

You administer a Microsoft SQL Server 2016 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>
  <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 OrderId, 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, OrderId, OrderDate, Amount FROM Orders INNER JOIN Customers  
ON Orders.CustomerId = Customers.CustomerId WHERE Customers.CustomerId =  
FOR XML AUTO
- F.** SELECT Name, Country, OrderId, 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')

**Answer: G**

**Question No : 244 DRAG DROP - (Topic 2)**

You administer a Microsoft SQL Server 2016 database.  
The database is backed up according to the following schedule:

- ☞ Daily full backup at 23:00 hours.
- ☞ Differential backups on the hour, except at 23:00 hours.
- ☞ Log backups every 10 minutes from the hour, except on the hour.

The database uses the Full recovery model.

A developer accidentally drops a number of tables and stored procedures from the database between 22:40 hours and 23:10 hours. You perform a database restore at 23:30 hours to recover the dropped table.

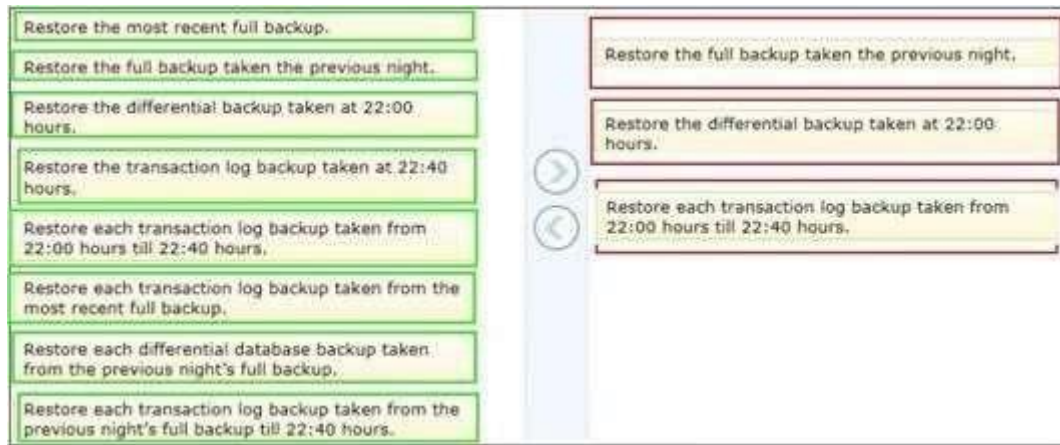
You need to restore the database by using the minimum amount of administrative effort.

You also need to ensure minimal data loss.

Which three actions should you perform in sequence? (To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.)

Restore the most recent full backup.	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;"> <input type="radio"/> </div> <div style="margin-right: 10px;"> <input type="radio"/> </div> </div>	
Restore the full backup taken the previous night.		
Restore the differential backup taken at 22:00 hours.		
Restore the transaction log backup taken at 22:40 hours.		
Restore each transaction log backup taken from 22:00 hours till 22:40 hours.		
Restore each transaction log backup taken from the most recent full backup.		
Restore each differential database backup taken from the previous night's full backup.		
Restore each transaction log backup taken from the previous night's full backup till 22:40 hours.		

**Answer:**



### Question No : 245 - (Topic 2)

Which of the following is a high availability feature with SQL Server 2016?

- A. Clustering
- B. AlwaysOn
- C. Log Shipping
- D. Active-Active

**Answer: B**

**Explanation:** References: <https://msdn.microsoft.com/en-us/library/ms190202%28v=sql.110%29.aspx> **Question No : 246 - (Topic 2)**

Which of the following permissions must a user have in order to query all of the built-in Dynamic Management views?

- A. VIEW ALL
- B. SELECT ALL VIEWS
- C. VIEW SERVER INFO
- D. VIEW SERVER STATE

**Answer: D**

**Explanation:** References: <https://msdn.microsoft.com/en-us/library/ms188754%28v=sql.110%29.aspx>

**Question No : 247 - (Topic 2)**

Which of the following is NOT a pre-defined server role in SQL Server 2016?

- A. securityadmin
- B. serveradmin
- C. sysdba
- D. dbcreator

**Answer: C**

**Explanation:** References:

<https://msdn.microsoft.com/en-us/library/ms188659%28v=sql.110%29.aspx>

**Question No : 248 - (Topic 2)**

On which of the following operating systems can you deploy the 64-bit version of SQL Server 2012 Enterprise edition? (Choose all that apply.)

- A. Windows 7 Ultimate (x64) edition
- B. Windows Server 2008 R2 SP1 (x64) Standard edition
- C. Windows Server 2008 SP2 (x64) Enterprise edition
- D. Windows Server 2003 R2 (x64) Enterprise edition

**Answer: B,C**