

Exam Questions 70-764

Administering a SQL Database Infrastructure (beta)

<https://www.2passeasy.com/dumps/70-764/>



NEW QUESTION 1

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You are a database administrator for a company that has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases, and each customer uses a dedicated instance. The environments that you manage are shown in the following table.

Customer	Cloud Type	Description
AdventureWorks Cycles	Private	The environment includes a database named Adventureworks that contains a single schema named ADVSchema . You must implement auditing for all objects in the ADVSchema schema. You must also implement auditing to record access to data that is considered sensitive by the company.
Tailspin Toys	Private	Tailspin Toys has a custom application that accesses a hosted database named TSpinDB . The application will monitor TSpinDB and capture information over time about which database objects are accessed and how frequently they are accessed.
Contoso, Ltd.	Private	The environment has a database named ConDB that was recently upgraded to Microsoft SQL Server 2016. Contoso reports that ConDB is slow to return results when the server is busy. You must modify the startup parameters to ConDB to optimize performance.
Wingtip Toys	Private	Wingtip Toys has a database named WingDB . All tables in the database have indexes. Users report system response time is slow during peak activity periods. You observe that the performance issues are related to locking. Wingtip Toys receives data updates from suppliers each week. You must implement a process for importing the data into WingDB . You must use minimal logging and minimized data loss during import process.
Wide World Importers	Public	The environment includes a database named WDWDB . Neither auditing nor statistics are configured for WDWDB . You must log any deletion of views and all database record update operations.

You need to monitor WingDB and gather information for troubleshooting issues. What should you use?

- A. sp_updatestats
- B. sp_lock
- C. sys.dm_os_waiting_tasks
- D. sys.dm_tran_active_snapshot_database_transactions
- E. Activity Monitor

Answer: B

Explanation: The sp_lock system stored procedure is packaged with SQL Server and will give you insight into the locks that are happening on your system. This procedure returns much of its information from the syslock info in the master database, which is a system table that contains information on all granted, converting, and waiting lock requests.

Note: sp_lock will be removed in a future version of Microsoft SQL Server. Avoid using this feature in new development work, and plan to modify applications that currently use this feature. To obtain information about locks in the SQL Server Database Engine, use the sys.dm_tran_locks dynamic management view. sys.dm_tran_locks returns information about currently active lock manager resources in SQL Server 2008 and later. Each row represents a currently active request to the lock manager for a lock that has been granted or is waiting to be granted.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-stored-procedures/sp-lock-transact-sql>

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

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?

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

Answer: F

Explanation: The goal of a page restore is to restore one or more damaged pages without restoring the whole database. Typically, pages that are candidates for restore have been marked as "suspect" because of an error that is encountered when accessing the page.

Note: 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. Etc.

References: <https://docs.microsoft.com/en-us/sql/relational-databases/backup-restore/restore-pages-sql-server>

NEW QUESTION 3

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?

- STATS
- COMPRESSION

C. CHECKSUM
D. IN IT

Answer: A

NEW QUESTION 4

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
- C. Configure the Subscriber to use the SQL Server Agent service account.
- D. Configure the SQL Server Agent service to run under a Windows domain account
- E. Configure the Subscriber to use the SQL Server Agent service account
- F. Grant FULL CONTROL access for the domain account to the Repldata share on ProdSrv1.
- G. Configure the Subscriber to use a Windows domain account
- H. Grant READ access for the domain account to the Repldata share on ProdSrv1.

Answer: D

NEW QUESTION 5

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

A company has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts a customer database named DB1.

Customers connect to hosted database instances by using line-of-business applications. Developers connect by using SQL Server Management Studio (SSMS).

You need to grant the developers permission to alter views for DB1 while following the principle of least privilege.

Which permission should you grant?

- A. DDLAdmin
- B. db_datawriter
- C. dbcreator
- D. dbo
- E. View Database State
- F. View Server State
- G. View Definition
- H. sysadmin

Answer: A

Explanation: To execute ALTER VIEW, at a minimum, ALTER permission on OBJECT is required.

Members of the db_ddladmin fixed database role can run any Data Definition Language (DDL) command in a database.

References: [https://technet.microsoft.com/en-us/library/ms190667\(v=sql.90\).aspx](https://technet.microsoft.com/en-us/library/ms190667(v=sql.90).aspx)

NEW QUESTION 6

You have a database that stores information for a shipping company. You create a table named Customers by running the following Transact-SQL statement.

(Line numbers are included for reference only.)

```
01 CREATE TABLE dbo.Customers (  
02     customerId int,  
03     customerName varchar(200),  
04     salesPerson varchar(20)  
05 )  
06 CREATE FUNCTION fn_securitypredicateSalesPerson (@salesPerson sysname)  
07  
08 AS  
09 RETURN SELECT 1 AS [fn_securityPredicateOrder_result]  
10 FROM dbo.Customers  
11 WHERE @salesPerson = user_name()
```

You need to ensure that salespeople can view data only for the customers that are assigned to them. Which Transact-SQL segment should you insert at line 07?

- A. RETURNS varchar(20)WITH Schemabinding
- B. RETURNS dbo.CustomersORDER BY @salesPerson
- C. RETURNS tableORDER BY @salesPerson
- D. RETURNS tableWITH Schemabinding

Answer: D

Explanation: The return value can either be a scalar (single) value or a table.

SELECT 1 just selects a 1 for every row, of course. What it's used for in this case is testing whether any rows exist that match the criteria: if a row exists that matches the WHERE clause, then it returns 1, otherwise it returns nothing.

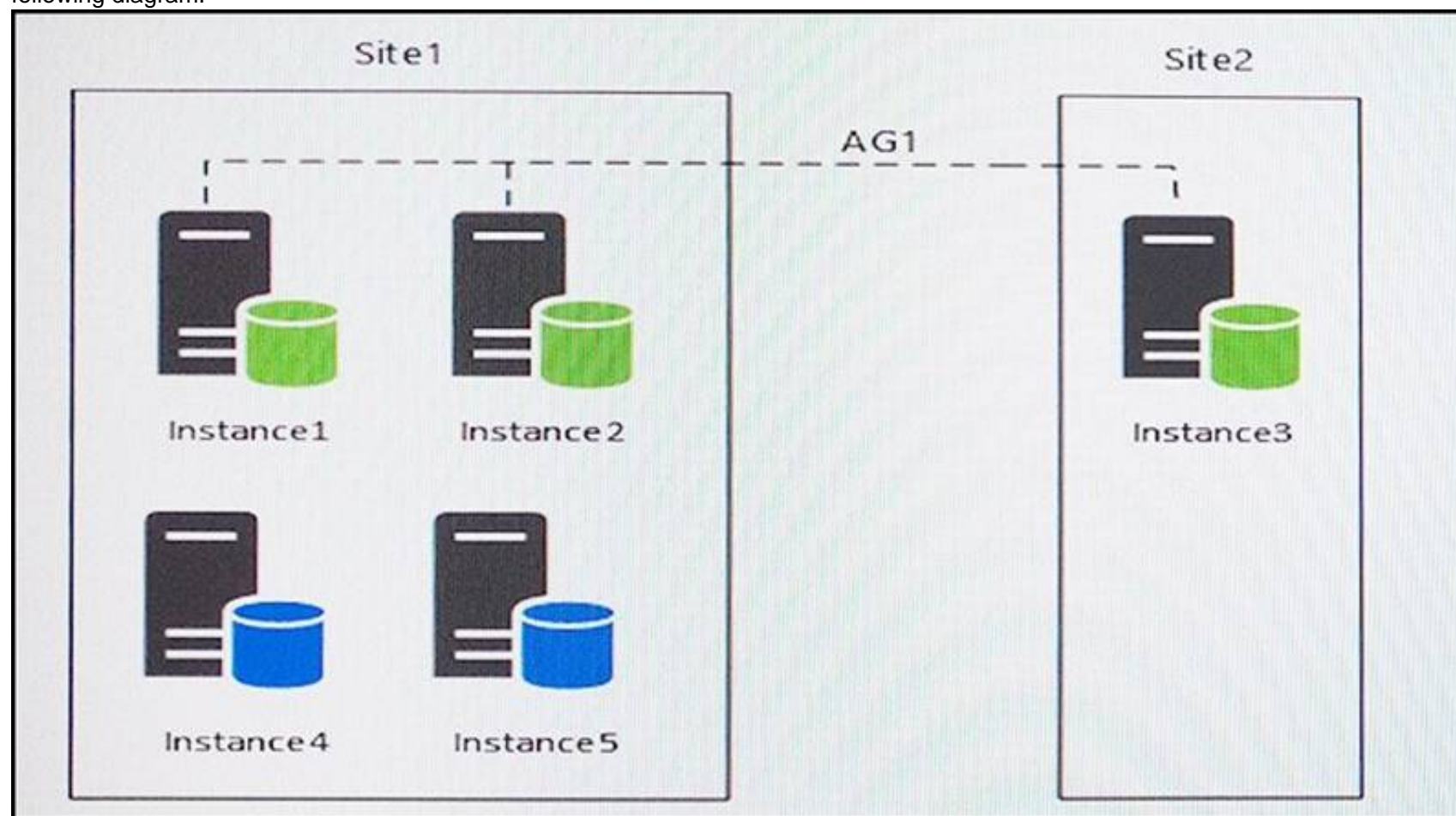
Specify the WITH SCHEMABINDING clause when you are creating the function. This ensures that the objects referenced in the function definition cannot be modified unless the function is also modified.

References: <https://docs.microsoft.com/en-us/sql/t-sql/statements/create-function-transact-sql>

NEW QUESTION 7

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You have five servers that run Microsoft Windows 2012 R2. Each server hosts a Microsoft SQL Server instance. The topology for the environment is shown in the following diagram.



You have an Always On Availability group named AG1. The details for AG1 are shown in the following table.

Instance	Node type
Instance1	Primary
Instance2	Synchronous readable secondary
Instance3	Asynchronous readable secondary

Instance1 experiences heavy read-write traffic. The instance hosts a database named OperationsMain that is four terabytes (TB) in size. The database has multiple data files and filegroups. One of the filegroups is read_only and is half of the total database size.

Instance4 and Instance5 are not part of AG1. Instance4 is engaged in heavy read-write I/O.

Instance5 hosts a database named StagedExternal. A nightly BULK INSERT process loads data into an empty table that has a rowstore clustered index and two nonclustered rowstore indexes.

You must minimize the growth of the StagedExternal database log file during the BULK INSERT operations and perform point-in-time recovery after the BULK INSERT transaction. Changes made must not interrupt the log backup chain.

You plan to add a new instance named Instance6 to a datacenter that is geographically distant from Site1 and Site2. You must minimize latency between the nodes in AG1.

All databases use the full recovery model. All backups are written to the network location \\SQLBackup\\. A separate process copies backups to an offsite location.

You should minimize both the time required to restore the databases and the space required to store backups. The recovery point objective (RPO) for each instance is shown in the following table.

Instance	Recovery point objective
Instance 1	5 minutes
Instance 2	5 minutes
Instance 3	5 minutes
Instance 4	60 minutes
Instance 5	24 hours

Full backups of OperationsMain take longer than six hours to complete. All SQL Server backups use the keyword COMPRESSION.

You plan to deploy the following solutions to the environment. The solutions will access a database named DB1 that is part of AG1.

Reporting system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader role. The user has EXECUTE permissions on the database. Queries make no changes to the data. The queries must be load balanced over variable read-only replicas.

Operations system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader and db_datawriter roles. The user has EXECUTE permissions on the database. Queries from the operations system will perform both DDL and DML operations.

The wait statistics monitoring requirements for the instances are described in the following table.

Instance	Description
Instance1	Aggregate wait statistics since the last server restart.
Instance4	Identify the most prominent wait types for all the commands originating from a session, between session connections, or between application pool resets.
Instance5	Identify all the wait types for queries currently running on the server.

You need to propose a new process for the StagedExternal database.

Which five actions should you recommended be performed in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Drop all nonclustered indexes on the target table.

Create a transaction log backup.
Change the recovery model of **StagedExternal** to **SIMPLE**.

Run the nightly import process.

Change the recovery model of **StagedExternal** to **SIMPLE**.

Change the recovery model of **StagedExternal** to **FULL**. Create a transaction log backup.

Drop all clustered and nonclustered indexes on the target table.

Recreate any dropped indexes on the target table.

Create a transaction log backup.
Change the recovery model of **StagedExternal** to **BULK_LOGGED**.

Answer Area



Answer:

Explanation: From scenario: Instance5 hosts a database named StagedExternal. A nightly BULK INSERT process loads data into an empty table that has a rowstore clustered index and two nonclustered rowstore indexes.

You must minimize the growth of the StagedExternal database log file during the BULK INSERT operations and perform point-in-time recovery after the BULK INSERT transaction. Changes made must not interrupt the log backup chain.

All databases use the full recovery model.

References: [https://technet.microsoft.com/en-us/library/ms190421\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms190421(v=sql.105).aspx)

NEW QUESTION 8

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

Explanation: You enable and configure Database Mail using the Database Mail Configuration Wizard. Profiles are either public or private. A private profile is

accessible only to specific users or roles.

References: <https://docs.microsoft.com/en-us/sql/relational-databases/database-mail/configure-database-mail>

NEW QUESTION 9

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

Explanation: Backup compression is supported on SQL Server 2016 editions: Enterprise, Standard, and Developer. References: <https://docs.microsoft.com/en-us/sql/sql-server/editions-and-components-of-sql-server-2016>

NEW QUESTION 10

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You manage a Microsoft SQL Server environment. You implement Transparent Data Encryption (TDE). A user will assist in managing TDE.

You need to ensure that the user can view the TDE metadata while following the principle of least privilege. Which permission should you grant?

- A. DDLAdmin
- B. db_datawriter
- C. dbcreator
- D. dbo
- E. View Database State
- F. View Server State
- G. View Definition
- H. sysadmin

Answer: G

Explanation: Viewing the metadata involved with TDE requires the VIEW DEFINITION permission on the certificate. References: <https://docs.microsoft.com/en-us/sql/relational-databases/security/encryption/transparent-data-encryption-tde>

NEW QUESTION 10

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases.

One customer reports that their database is not responding as quickly as the service level agreements dictate. You observe that the database is fragmented.

You need to optimize query performance.

Solution: You run the DBCC CHECKDB command. Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation: DBCC CHECKDB only checks the logical and physical integrity of all the objects in the specified database. It does not update any indexes, and does not improve query performance.

References: <https://docs.microsoft.com/en-us/sql/t-sql/database-console-commands/dbcc-checkdb-transact-sql>

NEW QUESTION 12

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

Explanation: The maximum resource value assigned to the third pool is 100%; the sum of the minimum resource values assigned to the other pools is 50%.

NEW QUESTION 13

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company has a server that runs Microsoft SQL Server 2016 Web edition. The server has a default instance that hosts a database named DB1.

You need to ensure that you can perform auditing at the database level for DB1.

Solution: You migrate DB1 to a named instance on a server that runs Microsoft SQL Server 2016 Standard edition.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation: All editions of SQL Server support server level audits. All editions support database level audits beginning with SQL Server 2016 SP1. Prior to that, database level auditing was limited to Enterprise, Developer, and Evaluation editions.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/auditing/sql-server-audit-database-engine>

NEW QUESTION 14

You have a database named DB1 that stores more than 700 gigabyte (GB) of data and serves millions of requests per hour.

Queries on DB1 are taking longer than normal to complete. You run the following Transact-SQL statement:

```
SELECT * FROM sys.database_query_store_options
```

You determine that the Query Store is in Read-Only mode.

You need to maximize the time that the Query Store is in Read-Write mode. Which Transact-SQL statement should you run?

- A. ALTER DATABASE DB1 SET QUERY_STORE (QUERY_CAPTURE_MODE = ALL)
- B. ALTER DATABASE DB1 SET QUERY_STORE (MAX_STORAGE_SIZE_MB = 50)
- C. ALTER DATABASE DB1 SET QUERY_STORE (CLEANUP_POLICY = (STALE_QUERY_THRESHOLD_DAYS = 14));
- D. ALTER DATABASE DB1 SET QUERY_STORE (QUERY_CAPTURE_MODE = NONE)

Answer: C

Explanation: Stale Query Threshold (Days): Time-based cleanup policy that controls the retention period of persisted runtime statistics and inactive queries.

By default, Query Store is configured to keep the data for 30 days which may be unnecessarily long for your scenario.

Avoid keeping historical data that you do not plan to use. This will reduce changes to read-only status. The size of Query Store data as well as the time to detect and mitigate the issue will be more predictable. Use Management Studio or the following script to configure time-based cleanup policy:

```
ALTER DATABASE [QueryStoreDB]
```

```
SET QUERY_STORE (CLEANUP_POLICY = (STALE_QUERY_THRESHOLD_DAYS = 14));
```

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/best-practice-with-the-query-store>

NEW QUESTION 16

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?

- 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',
- 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: ABC

Explanation: SQL Server provides a dedicated administrator connection (DAC). The DAC lets an administrator access a running server to execute diagnostic functions or Transact-SQL statements, or to troubleshoot problems on the server, even when the server is locked or running in an abnormal state and not responding to a SQL Server Database Engine connection. By default, the DAC is only available from a client on the server. To enable client applications on remote computers to use the DAC, use the remote admin connections option of sp_configure.

By default, the DAC only listens on the loop-back IP address (127.0.0.1), port 1434. The following example enables the DAC from a remote computer.

```
sp_configure 'remote admin connections', 1; GO
```

```
RECONFIGURE; GO
```

References:

<https://docs.microsoft.com/en-us/sql/database-engine/configure-windows/remote-admin-connections-server-con>

NEW QUESTION 20

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A company has a server that runs Microsoft SQL Server 2016 Web edition. The server has a default instance that hosts a database named DB1.

You need to ensure that you can perform auditing at the database level for DB1.

Solution: You migrate DB1 to a named instance on a server that runs Microsoft SQL Server 2016 Enterprise edition.

Does the solution meet the goal?

- A. Yes

B. No

Answer: A

Explanation: All editions of SQL Server support server level audits. All editions support database level audits beginning with SQL Server 2016 SP1. Prior to that, database level auditing was limited to Enterprise, Developer, and Evaluation editions.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/auditing/sql-server-audit-database-engine>

NEW QUESTION 24

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 SQLServer\MSSQL11.MSSQLSERVER\Log\Errorlog
- B. %programfiles%\Microsoft SQL Server\110\setupBootstrap\Log\Summary.txt
- C. %programfiles%\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\DATA\mastlog.idf
- D. %programfiles%\Microsoft SQLServer\110\Shared>ErrorDmpr[XXXX] .mdmp

Answer: A

NEW QUESTION 29

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: C

Explanation: For most applications, read committed isolation using row versioning is recommended over snapshot isolation for the following reasons:

It consumes less tempdb space than snapshot isolation. Etc.

References: <https://msdn.microsoft.com/en-us/library/ms188277.aspx>

NEW QUESTION 32

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 to execute SQL Server Agent jobs.

To which role should you add UserA?

- A. Securityadmin
- B. RSExecRole
- C. SQLAgentUserRole
- D. DatabaseMailUserRole

Answer: C

NEW QUESTION 36

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 user
- B. Grant VIEW DEFINITION to all users.
- C. Grant EXECUTE permission on p_AddInventory to all user
- D. Add all users to the db_datawriter role.
- E. Add all users to the db_owner role.
- F. Grant EXECUTE permission on p_AddInventory to all user
- G. Add all users to the db_datareader role.

Answer: D

NEW QUESTION 39

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

NEW QUESTION 42

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases.

One customer reports that their database is not responding as quickly as the service level agreements dictate. You observe that the database is fragmented.

You need to optimize query performance. Solution: You rebuild all indexes.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation: You can remedy index fragmentation by either reorganizing an index or by rebuilding an index. References: [https://msdn.microsoft.com/en-us/library/ms189858\(v=sql.105\).aspx](https://msdn.microsoft.com/en-us/library/ms189858(v=sql.105).aspx)

NEW QUESTION 44

You are the database administrator of a Microsoft SQL Server instance. Developers are writing stored procedures to send emails using sp_send_dbmail. Database Mail is enabled.

You need to configure each account's profile security and meet the following requirements:

Account SMTP1_Account must only be usable by logins that have been given explicit permissions to use the SMTP1_profile.

Account SMTP2_Account must only be usable by logins who are a member of the [DatabaseMailUserRole] role in msdb.

In the table below, identify the profile type that must be used for each account. NOTE: Make only one selection in each column.

Answer Area

Profile type	SMTP1_Account	SMTP2_Account
Private Profile	<input type="radio"/>	<input type="radio"/>
Public Profile	<input type="radio"/>	<input type="radio"/>
Default Profile	<input type="radio"/>	<input type="radio"/>

Answer:

Explanation: SMTP1_Account1: Private Profile

When no profile_name is specified, sp_send_dbmail uses the default private profile for the current user. I user does not have a default private profile, sp_send_dbmail uses the default public profile for the msdb database.

SMTP1_Account2: Default Profile

Execute permissions for sp_send_dbmail default to all members of the DatabaseMailUser database role in the msdb database.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-stored-procedures/sp-send-dbmail-transact-sql>

NEW QUESTION 46

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to configure a Microsoft SQL Server instance to ensure that a user named Mail1 can send mail by using Database Mail.

Solution: You add the DatabaseMailUserRole to Mail1 in the master database. Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation: Database Mail is guarded by the database role DatabaseMailUserRole in the msdb database, not the master database, in order to prevent anyone from sending arbitrary emails. Database users or roles must be created in the msdb database and must also be a member of DatabaseMailUserRole in order to send emails with the exception of sysadmin who has all privileges.

Note: Database Mail was first introduced as a new feature in SQL Server 2005 and replaces the SQL Mail feature found in previous versions.

References:

http://www.idevelopment.info/data/SQLServer/DBA_tips/Database_Administration/DBA_20.shtml

NEW QUESTION 50

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You are the database administrator for a company that hosts Microsoft SQL Server. You manage both on-premises and Microsoft Azure SQL Database environments.

You have a user database named HRDB that contains sensitive human resources data. The HRDB backup files must be encrypted.

You need to grant the correct permission to the service account that backs up the HRDB database. Which permission should you grant?

- A. DDLAdmin
- B. db_datawriter
- C. dbcreator
- D. dbo
- E. View Database State
- F. View Server State
- G. View Definition
- H. sysadmin

Answer: G

Explanation: Restoring the encrypted backup: SQL Server restore does not require any encryption parameters to be specified during restores. It does require that the certificate or the asymmetric key used to encrypt the backup file be available on the instance that you are restoring to. The user account performing the restore must have VIEW DEFINITION permissions on the certificate or key.

References: <https://docs.microsoft.com/en-us/sql/relational-databases/backup-restore/backup-encryption>

NEW QUESTION 52

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

NEW QUESTION 55

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

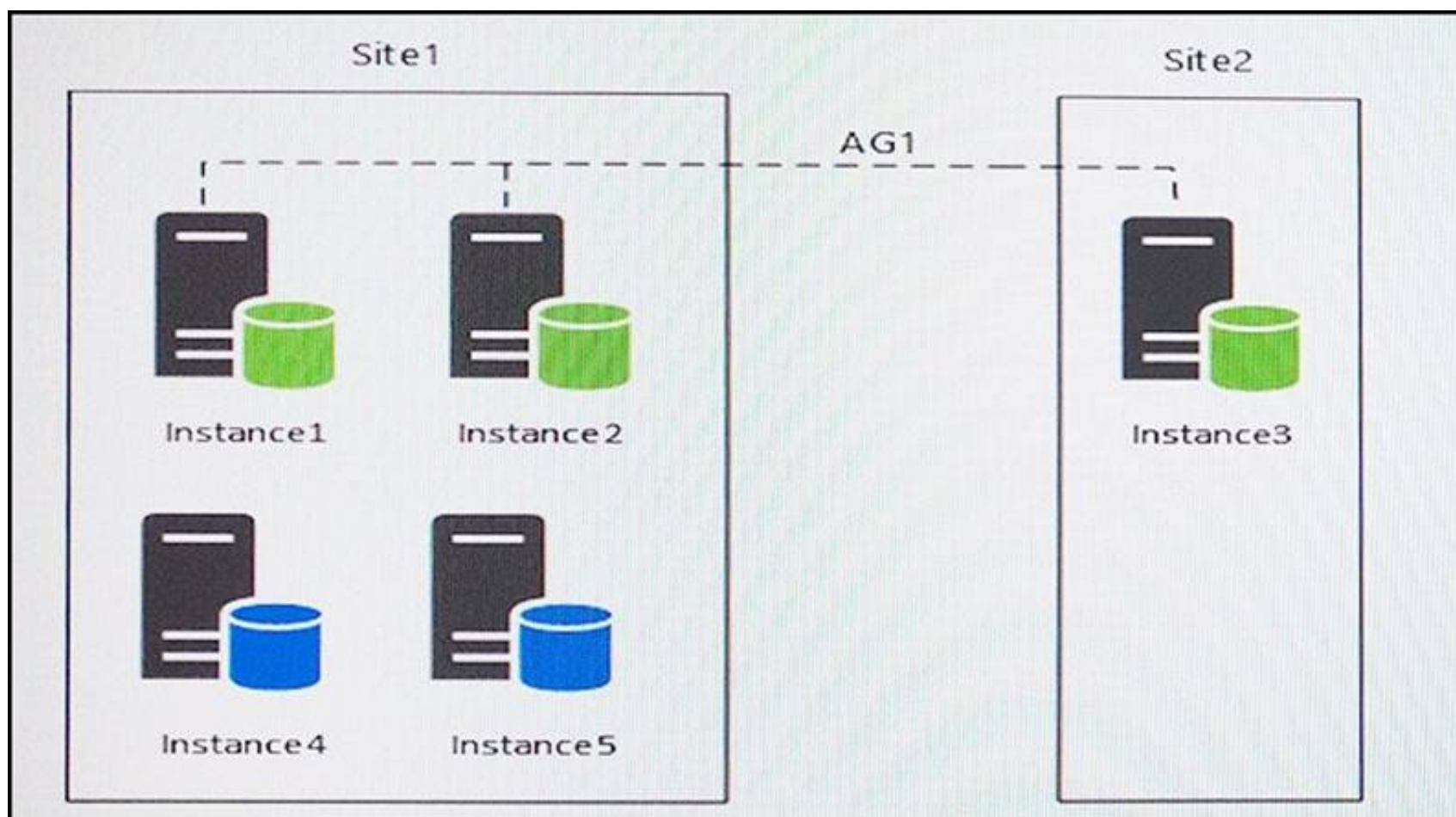
Explanation: You can configure TempDB on a local disk when you, for example, installing your SQL Server cluster. References:

<https://www.mssqltips.com/sqlservertip/2817/sql-server-2012-cluster-with-tempdb-on-local-disk/>

NEW QUESTION 58

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You have five servers that run Microsoft Windows 2012 R2. Each server hosts a Microsoft SQL Server instance. The topology for the environment is shown in the following diagram.



You have an Always On Availability group named AG1. The details for AG1 are shown in the following table.

Instance	Node type
Instance1	Primary
Instance2	Synchronous readable secondary
Instance3	Asynchronous readable secondary

Instance1 experiences heavy read-write traffic. The instance hosts a database named OperationsMain that is four terabytes (TB) in size. The database has multiple data files and filegroups. One of the filegroups is read_only and is half of the total database size.

Instance4 and Instance5 are not part of AG1. Instance4 is engaged in heavy read-write I/O.

Instance5 hosts a database named StagedExternal. A nightly BULK INSERT process loads data into an empty table that has a rowstore clustered index and two nonclustered rowstore indexes.

You must minimize the growth of the StagedExternal database log file during the BULK INSERT operations and perform point-in-time recovery after the BULK INSERT transaction. Changes made must not interrupt the log backup chain.

You plan to add a new instance named Instance6 to a datacenter that is geographically distant from Site1 and Site2. You must minimize latency between the nodes in AG1.

All databases use the full recovery model. All backups are written to the network location \\SQLBackup\. A separate process copies backups to an offsite location.

You should minimize both the time required to restore the databases and the space required to store backups. The recovery point objective (RPO) for each instance is shown in the following table.

Instance	Recovery point objective
Instance 1	5 minutes
Instance 2	5 minutes
Instance 3	5 minutes
Instance 4	60 minutes
Instance 5	24 hours

Full backups of OperationsMain take longer than six hours to complete. All SQL Server backups use the keyword COMPRESSION.

You plan to deploy the following solutions to the environment. The solutions will access a database named DB1 that is part of AG1.

Reporting system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader role. The user has EXECUTE permissions on the database. Queries make no changes to the data. The queries must be load balanced over variable read-only replicas.

Operations system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader and db_datawriter roles. The user has EXECUTE permissions on the database. Queries from the operations system will perform both DDL and DML operations.

The wait statistics monitoring requirements for the instances are described in the following table.

Instance	Description
Instance1	Aggregate wait statistics since the last server restart.
Instance4	Identify the most prominent wait types for all the commands originating from a session, between session connections, or between application pool resets.
Instance5	Identify all the wait types for queries currently running on the server.

You need to configure a new replica of AG1 on Instance6.

How should you complete the Transact-SQL statement? To answer, drag the appropriate Transact-SQL statements to the correct locations. Each Transact-SQL segment 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.

Transact-SQL segments

DATABASE

REPLICA

SYNCHRONOUS_COMMIT

ASYNCHRONOUS_COMMIT

PRIMARY

MANUAL

AUTOMATIC

SECONDARY_ONLY

● ● ● ●

Answer Area

```
ALTER AVAILABILITY GROUP AG_1 MODIFY Transact-SQL segment ON 'INSTANCE6'

WITH (AVAILABILITY_MODE = Transact-SQL segment );

ALTER AVAILABILITY GROUP AG_1 MODIFY Transact-SQL segment ON 'INSTANCE6'

WITH (FAILOVER_MODE = Transact-SQL segment );
```

Answer:

Explanation: Scenario: You plan to add a new instance named Instance6 to a datacenter that is geographically distant from Site1 and Site2. You must minimize latency between the nodes in AG1.

Box 1: REPLICA

MODIFY REPLICA ON modifies any of the replicas of the availability group. Box 2: SYNCHRONOUS_COMMIT

You must minimize latency between the nodes in AG1

AVAILABILITY_MODE = { SYNCHRONOUS_COMMIT | ASYNCHRONOUS_COMMIT }

Specifies whether the primary replica has to wait for the secondary availability group to acknowledge the hardening (writing) of the log records to disk before the primary replica can commit the transaction on a given primary database.

FAILOVER AUTOMATIC (box 4) requires SYNCHRONOUS_COMMIT Box 3: REPLICA

MODIFY REPLICA ON modifies any of the replicas of the availability group. Box 4: AUTOMATIC

You must minimize latency between the nodes in AG1 FAILOVER_MODE = { AUTOMATIC | MANUAL }

Specifies the failover mode of the availability replica that you are defining.

FAILOVER_MODE is required in the ADD REPLICA ON clause and optional in the MODIFY REPLICA ON clause.

AUTOMATIC enables automatic failover. AUTOMATIC is supported only if you also specify

AVAILABILITY_MODE = SYNCHRONOUS_COMMIT.

References: <https://docs.microsoft.com/en-us/sql/t-sql/statements/alter-availability-group-transact-sql>

NEW QUESTION 60

You have a database. The existing backups for the database and their corresponding files are listed in the following table.

Backup type	Backup date/time	File name
Full	05/02/2016 21:00	Full_20160502_2100.bak
Transaction log	05/03/2016 6:00	Log_20160503_0600.trn
Transaction log	05/03/2016 9:00	Log_20160503_0900.trn
Differential	05/03/2016 12:00	Diff_20160503_1200.bak
Transaction log	05/03/2016 15:00	Log_20160503_1500.trn
Differential	05/03/2016 17:00	Diff_20160503_1700.bak
Transaction log	05/03/2016 19:00	Log_20160503_1900.trn

You purchase a new server. You must restore the database to the new server. You need to restore the data to the most recent time possible. Which three files should you restore in sequence? To answer, move the appropriate files from the list of files to the answer area and arrange them in the correct order.

Files

Log_20160503_0600.trn

Log_20160503_1500.trn

Full_20160502_2100.bak

Log_20160503_1900.trn

Log_20160503_0900.trn

Diff_20160503_1200.bak

Diff_20160503_1700.bak

Answer Area



Answer:

Explanation: Step 1: Full.

Start with the full backup.

Step 2: Diff_20160503_1700.bak

Followed by the most recent differential backup. Step 3: Log_20160503_1900.bak

And finally the most recent log backup (the only log backup done after the most recent differential backup).

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/backup-restore/differential-backups-sql-server>

NEW QUESTION 63

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

NEW QUESTION 66

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

A company has a server that runs Microsoft SQL Server 2016 Web edition. The server has a default instance that hosts a database named DB1.

You need to ensure that you can perform auditing at the database level for DB1.

Solution: You migrate DB1 to the default instance on a server that runs Microsoft SQL Server 2016 Standard edition.
 Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

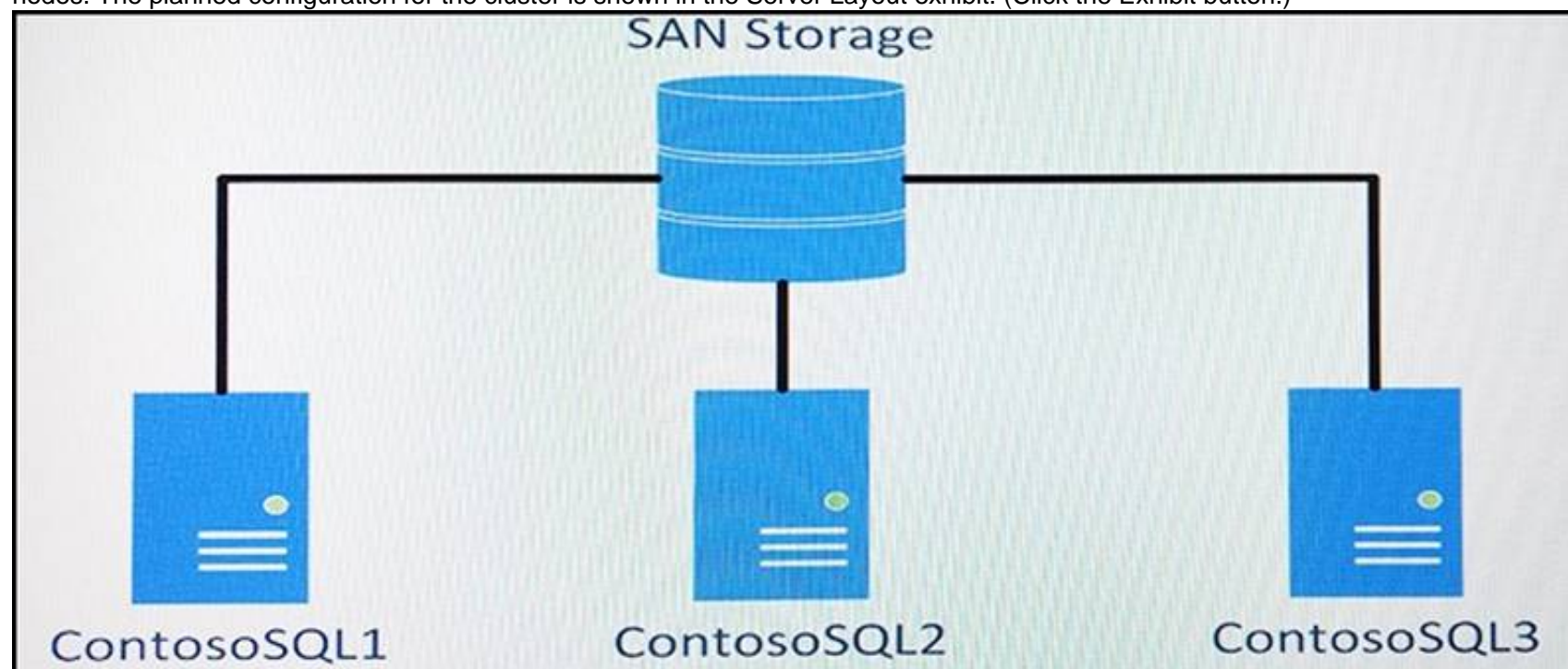
Explanation: All editions of SQL Server support server level audits. All editions support database level audits beginning with SQL Server 2016 SP1. Prior to that, database level auditing was limited to Enterprise, Developer, and Evaluation editions.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/auditing/sql-server-audit-database-engine>

NEW QUESTION 68

You are planning the deployment of two new Always On Failover Cluster Instances (FCIs) of Microsoft SQL Server to a single Windows Server Cluster with three nodes. The planned configuration for the cluster is shown in the Server Layout exhibit. (Click the Exhibit button.)



The SAN team has configured storage for the cluster and sent the configuration to you in the email shown in the SAN Team Email exhibit. (Click the Exhibit button.)

Conversation

Subject

DBA Team,

SAN Storage for new SQL Cluster

SAN Storage for new SQL Cluster

The following LUNs have been presented to the three servers of the new SQL Cluster:

Two 1 TB drives

Two 500 GB drives

Two 75 GB drives

...

Contoso SAN Admins

Each node of the cluster has identical local storage available as shown in the Local Storage exhibit. (Click the Exhibit button.)



All local storage is on SSD.

You need to plan specific configurations for the new cluster.

For each of the following statement, select Yes if the statement is true. Otherwise, select No.

Answer Area

Statements	Yes	No
The Tempdb database for each cluster instance can be placed on the D: drive for the instance.	<input type="radio"/>	<input type="radio"/>
One virtual network name for each SQL Server instance must be configured in the cluster.	<input type="radio"/>	<input type="radio"/>
The shared storage has been formatted and configured on ContosoSQL1.	<input type="radio"/>	<input type="radio"/>

Answer:

Explanation: Box 1: Yes

tempdb on local storage. FCIs now support placement of tempdb on local non-shared storage, such as a local solid-state-drive, potentially offloading a significant amount of I/O from a shared SAN.

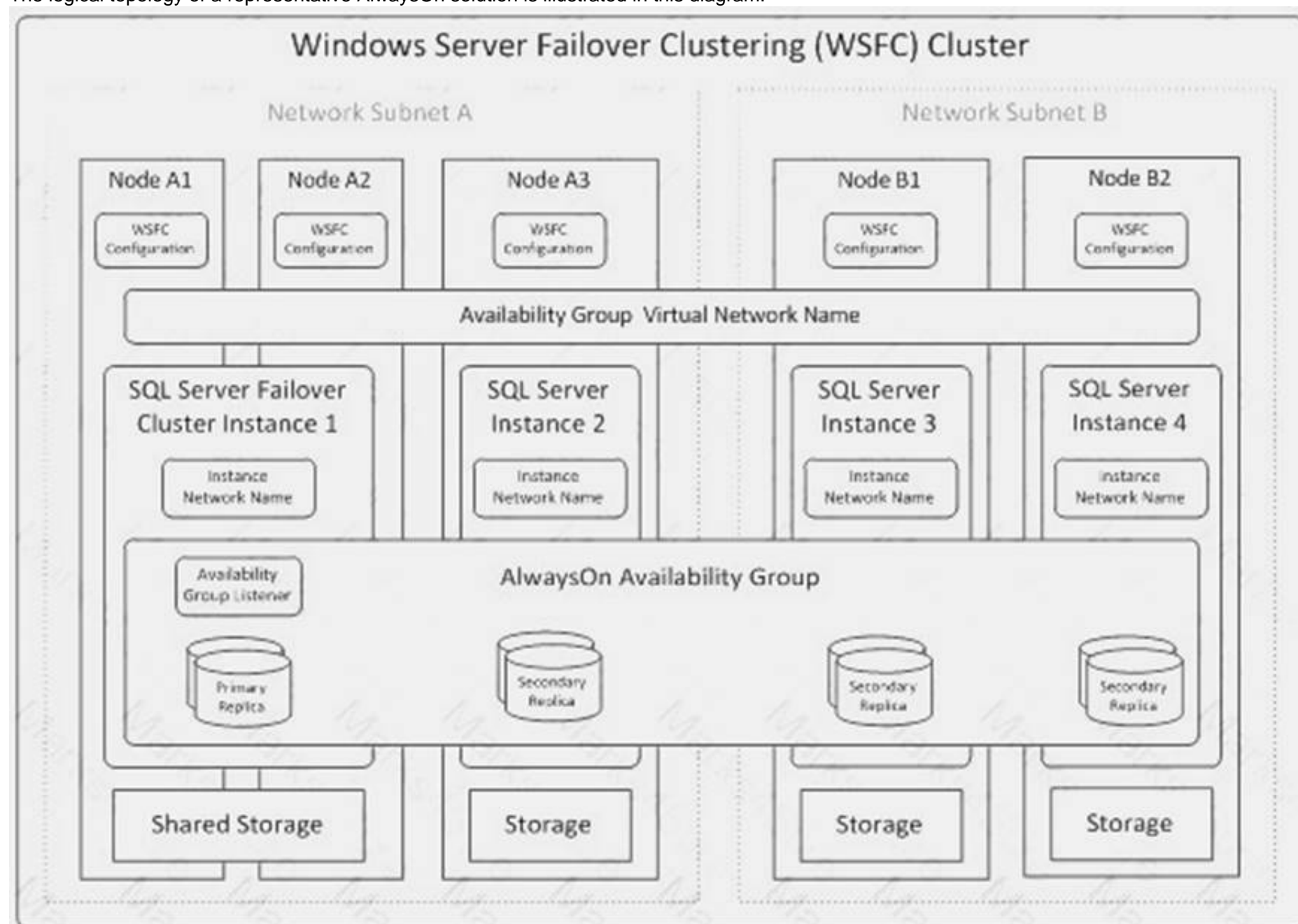
Prior to SQL Server 2012, FCIs required tempdb to be located on a symmetrical shared storage volume that failed over with other system databases.

Box 2: No

The VNN is set on the group level, not on the instance level.

Database client applications can connect directly to a SQL Server instance network name, or they may connect to a virtual network name (VNN) that is bound to an availability group listener. The VNN abstracts the WSFC cluster and availability group topology, logically redirecting connection requests to the appropriate SQL Server instance and database replica.

The logical topology of a representative AlwaysOn solution is illustrated in this diagram:



Box 3: No

You don't configure the SAN from a SQL Server, instead you can use a Microsoft Server server.

References:

<http://download.microsoft.com/download/d/2/0/d20e1c5f-72ea-4505-9f26-fef9550efd44/microsoft%20sql%20se>

NEW QUESTION 69

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

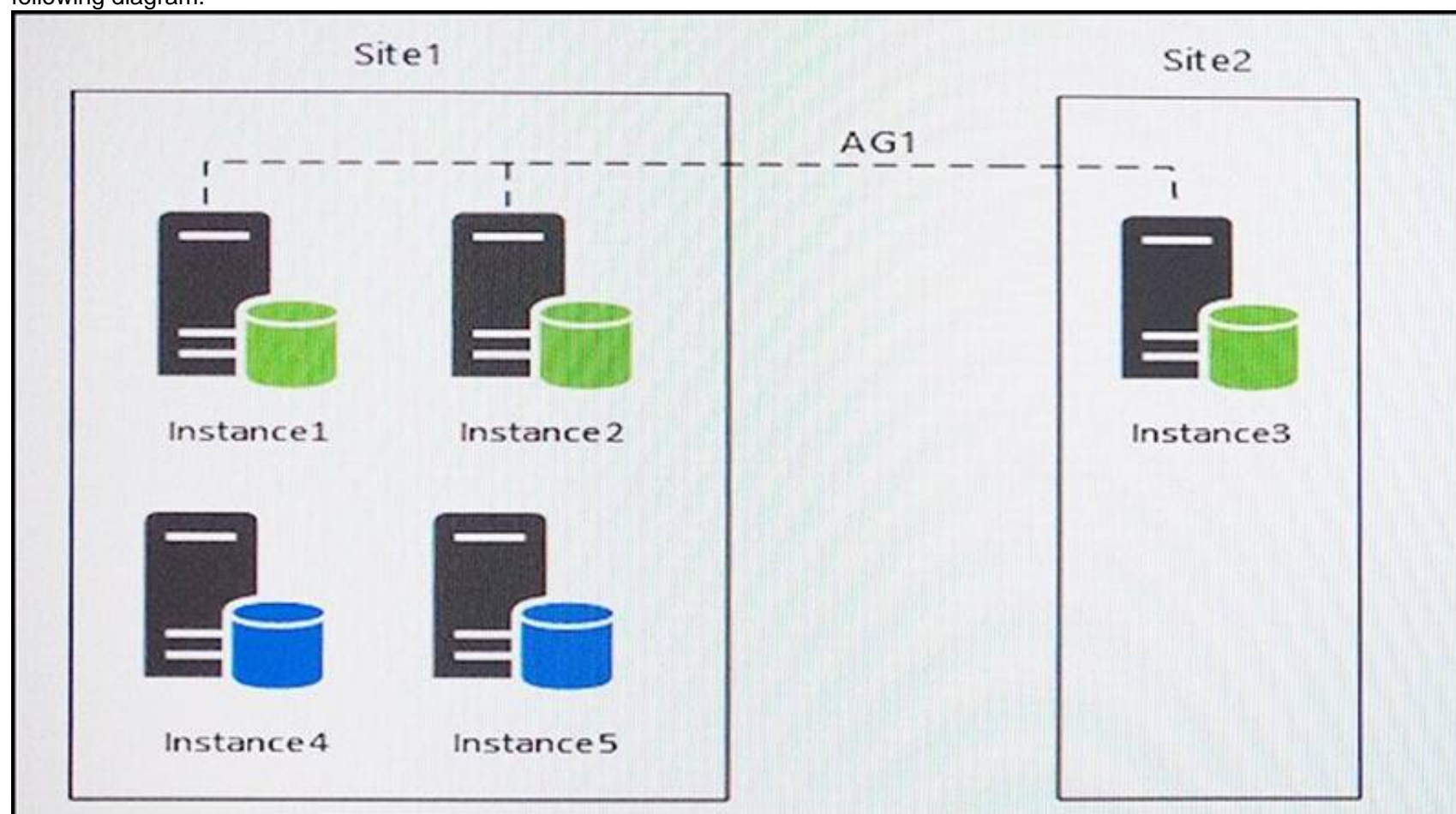
Explanation: References:

<https://docs.microsoft.com/en-us/sql/relational-databases/replication/transactional/transactional-replication>

NEW QUESTION 71

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You have five servers that run Microsoft Windows 2012 R2. Each server hosts a Microsoft SQL Server instance. The topology for the environment is shown in the following diagram.



You have an Always On Availability group named AG1. The details for AG1 are shown in the following table.

Instance	Node type
Instance1	Primary
Instance2	Synchronous readable secondary
Instance3	Asynchronous readable secondary

Instance1 experiences heavy read-write traffic. The instance hosts a database named OperationsMain that is four terabytes (TB) in size. The database has multiple data files and filegroups. One of the filegroups is read_only and is half of the total database size.

Instance4 and Instance5 are not part of AG1. Instance4 is engaged in heavy read-write I/O.

Instance5 hosts a database named StagedExternal. A nightly BULK INSERT process loads data into an empty table that has a rowstore clustered index and two nonclustered rowstore indexes.

You must minimize the growth of the StagedExternal database log file during the BULK INSERT operations and perform point-in-time recovery after the BULK INSERT transaction. Changes made must not interrupt the log backup chain.

You plan to add a new instance named Instance6 to a datacenter that is geographically distant from Site1 and Site2. You must minimize latency between the nodes in AG1.

All databases use the full recovery model. All backups are written to the network location \\SQLBackup\\. A separate process copies backups to an offsite location.

You should minimize both the time required to restore

the databases and the space required to store backups. The recovery point objective (RPO) for each instance is shown in the following table.

Instance	Recovery point objective
Instance 1	5 minutes
Instance 2	5 minutes
Instance 3	5 minutes
Instance 4	60 minutes
Instance 5	24 hours

Full backups of OperationsMain take longer than six hours to complete. All SQL Server backups use the keyword COMPRESSION.

You plan to deploy the following solutions to the environment. The solutions will access a database named DB1 that is part of AG1.

Reporting system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader role. The user has EXECUTE permissions on the database. Queries make no changes to the data. The queries must be load balanced over variable read-only replicas.

Operations system: This solution accesses data inDB1with a login that is mapped to a database user that is a member of the db_datareader and db_datawriter roles. The user has EXECUTE permissions on the database. Queries from the operations system will perform both DDL and DML operations.

The wait statistics monitoring requirements for the instances are described in the following table.

Instance	Description
Instance1	Aggregate wait statistics since the last server restart.
Instance4	Identify the most prominent wait types for all the commands originating from a session, between session connections, or between application pool resets.
Instance5	Identify all the wait types for queries currently running on the server.

You need to reduce the amount of time it takes to backup OperationsMain. What should you do?

- A. Modify the backup script to use the keyword SKIP in the FILE_SNAPSHOT statement.
- B. Modify the backup script to use the keyword SKIP in the WITH statement
- C. Modify the backup script to use the keyword NO_COMPRESSION in the WITH statement.
- D. Modify the full database backups script to stripe the backup across multiple backup files.

Answer: D

Explanation: One of the filegroup is read_only should be as it only need to be backup up once. Partial backups are useful whenever you want to exclude read-only filegroups. A partial backup resembles a full database backup, but a partial backup does not contain all the filegroups. Instead, for a read-write database, a partial backup contains the data in the primary filegroup, every read-write filegroup, and, optionally, one or more read-only files. A partial backup of a read-only database contains only the primary filegroup.

From scenario: Instance1 experiences heavy read-write traffic. The instance hosts a database named OperationsMainthat is four terabytes (TB) in size. The database has multiple data files and filegroups. One of the filegroups is read_only and is half of the total database size.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/backup-restore/partial-backups-sql-server>

NEW QUESTION 75

You have a database named DB1 that is configured to use the full recovery model. You have a full daily backup job that runs at 02:00. The job backs up data from DB1 to the file B:\DB1.bak.

You need to restore the DB1 database to the point in time of May 25, 2016 at 02:23 and ensure that the database is functional and starts to accept connections. Which Transact-SQL statement should you run?

A.

```
BACKUP LOG [DB1] TO DISK = N'B:\DB1Log.bak' WITH RECOVERY
RESTORE DATABASE [DB1] FROM DISK = N'B:\DB1.bak' WITH NORECOVERY
RESTORE LOG [DB1] FROM DISK = N'B:\DB1Log.bak' WITH STOPAT = N'2016-05-25T02:23:00'
```

B.

```
BACKUP LOG [DB1] TO DISK = N'B:\DB1Log.bak' WITH NORECOVERY
RESTORE DATABASE [DB1] FROM DISK = N'B:\DB1.bak' WITH NORECOVERY
RESTORE LOG [DB1] FROM DISK = N'B:\DB1Log.bak' WITH STOPAT = N'2016-05-25T02:23:00'
```

C.

```
BACKUP LOG [DB1] TO DISK = N'B:\DB1Log.bak' WITH NORECOVERY
RESTORE DATABASE [DB1] FROM DISK = N'B:\DB1.bak' WITH NORECOVERY
RESTORE LOG [DB1] FROM DISK = N'B:\DB1Log.bak' WITH STOPAT = N'2016-05-25T02:23:00', NORECOVERY
```

D.

```
RESTORE DATABASE [DB1] FROM DISK = N'B:\DB1.bak' WITH STOPAT = N'2016-05-25T02:23:00', RECOVERY
```

- A. Option A
- B. Option B

C. Option C
D. Option D

Answer: B

NEW QUESTION 80

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to configure a Microsoft SQL Server instance to ensure that a user named Mail1 can send mail by using Database Mail.

Solution: You add the DatabaseMailUserRole to Mail1 in the tempdb database. Does the solution meet the goal?

A. Yes
B. No

Answer: B

Explanation: Database Mail is guarded by the database role DatabaseMailUserRole in the msdb database, not the tempdb database, in order to prevent anyone from sending arbitrary emails. Database users or roles must be created in the msdb database and must also be a member of DatabaseMailUserRole in order to send emails with the exception of sysadmin who has all privileges.

Note: Database Mail was first introduced as a new feature in SQLServer 2005 and replaces the SQL Mail feature found in previous versions.

References:

http://www.idevelopment.info/data/SQLServer/DBA_tips/Database_Administration/DBA_20.shtml

NEW QUESTION 83

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You are a database administrator for a company that has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases, and each customer uses a dedicated instance. The environments that you manage are shown in the following table.

Customer	Cloud Type	Description
AdventureWorks Cycles	Private	The environment includes a database named Adventureworks that contains a single schema named ADVSchema. You must implement auditing for all objects in the ADVSchema schema. You must also implement auditing to record access to data that is considered sensitive by the company.
Tailspin Toys	Private	Tailspin Toys has a custom application that accesses a hosted database named TSpinDB . The application will monitor TSpinDB and capture information over time about which database objects are accessed and how frequently they are accessed.
Contoso, Ltd.	Private	The environment has a database named ConDB that was recently upgraded to Microsoft SQL Server 2016. Contoso reports that ConDB is slow to return results when the server is busy. You must modify the startup parameters to ConDB to optimize performance.
Wingtip Toys	Private	Wingtip Toys has a database named WingDB . All tables in the database have indexes. Users report system response time is slow during peak activity periods. You observe that the performance issues are related to locking. Wingtip Toys receives data updates from suppliers each week. You must implement a process for importing the data into WingDB . You must use minimal logging and minimized data loss during import process.
Wide World Importers	Public	The environment includes a database named WDWDB . Neither auditing nor statistics are configured for WDWDB . You must log any deletion of views and all database record update operations.

You need to configure auditing for WDWDB.

In the table below, identify the event type that you must audit for each activity.

Answer Area

Event type	View deletions	Update operations
Data changes	<input type="radio"/>	<input type="radio"/>
Schema changes	<input type="radio"/>	<input type="radio"/>
SQL batch	<input type="radio"/>	<input type="radio"/>
Data access	<input type="radio"/>	<input type="radio"/>

Answer:

Explanation:

Answer Area

Event type	View deletions	Update operations
Data changes	<input type="radio"/>	<input checked="" type="radio"/>
Schema changes	<input checked="" type="radio"/>	<input type="radio"/>
SQL batch	<input type="radio"/>	<input type="radio"/>
Data access	<input type="radio"/>	<input type="radio"/>

NEW QUESTION 87

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You are a database administrator for a company that has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases, and each customer uses a dedicated instance. The environments that you manage are shown in the following table.

Customer	Cloud Type	Description
AdventureWorks Cycles	Private	The environment includes a database named Adventureworks that contains a single schema named ADVSchema . You must implement auditing for all objects in the ADVSchema schema. You must also implement auditing to record access to data that is considered sensitive by the company.
Tailspin Toys	Private	Tailspin Toys has a custom application that accesses a hosted database named TSpinDB . The application will monitor TSpinDB and capture information over time about which database objects are accessed and how frequently they are accessed.
Contoso, Ltd.	Private	The environment has a database named ConDB that was recently upgraded to Microsoft SQL Server 2016. Contoso reports that ConDB is slow to return results when the server is busy. You must modify the startup parameters to ConDB to optimize performance.
Wingtip Toys	Private	Wingtip Toys has a database named WingDB . All tables in the database have indexes. Users report system response time is slow during peak activity periods. You observe that the performance issues are related to locking. Wingtip Toys receives data updates from suppliers each week. You must implement a process for importing the data into WingDB . You must use minimal logging and minimized data loss during import process.
Wide World Importers	Public	The environment includes a database named WDWDB . Neither auditing nor statistics are configured for WDWDB . You must log any deletion of views and all database record update operations.

You need to configure auditing for the Adventure Works environment.

How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

USE master

GO

	▼ AuditADUAccess
CREATE DATABASE AUDIT	
ALTER DATABASE AUDIT	
CREATE SERVER AUDIT	
ALTER SERVER AUDIT	

TO FILE (FILEPATH = 'C:\ADVAudit\')
 WHERE object_name = 'SensitiveData'

GO

	▼ AuditADUAccess WITH (STATE = ON)
CREATE DATABASE AUDIT	
ALTER DATABASE AUDIT	
CREATE SERVER AUDIT	
ALTER SERVER AUDIT	

GO

Use Adventureworks

	▼ SPECIFICATION [FilterForSensitiveData]
CREATE DATABASE AUDIT	
ALTER DATABASE AUDIT	
CREATE SERVER AUDIT	
ALTER SERVER AUDIT	

	▼ [AuditADUAccess]
FOR SERVER AUDIT	
FOR DATABASE AUDIT	
USE [AuditDataAcces]	
SELECT ID	

ADD (SELECT ON SCHEMA::[ADVSchema] BY [public])
 WITH (STATE = ON)
 GO

Answer:

Explanation: Box 1: CREATE SERVER AUDIT

Create the server audit.

You must implement auditing to record access to data that is considered sensitive by the company. Create database audit

Box 2: ALTER SERVER AUDIT

Enable the server audit.

Box 3: CREATE DATABASE AUDIT

Create the database audit specification. Box 4: FOR SERVER AUDIT

You must implement auditing for all objects in the ADVSchema.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/auditing/create-a-server-audit-and-database-au>

NEW QUESTION 89

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 AsynchronousCommit 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
- H. Two servers configured in different data centers SQL Server Availability Group configured in AsynchronousCommit Availability Mode

Answer: E

Explanation: Snapshot replication distributes data exactly as it appears at a specific moment in time and does not monitor for updates to the data. When synchronization occurs, the entire snapshot is generated and sent to Subscribers.

Using snapshot replication by itself is most appropriate when one or more of the following is true:

Data changes infrequently.

It is acceptable to have copies of data that are out of date with respect to the Publisher for a period of time.

Replicating small volumes of data.

A large volume of changes occurs over a short period of time.

References: <https://docs.microsoft.com/en-us/sql/relational-databases/replication/snapshot-replication>

NEW QUESTION 93

You manage a Microsoft SQL Server instance. You have a user named User1.

You need to grant the minimum permissions necessary to allow User1 to review audit logs.

For each action, which option should you use? To answer, select the appropriate options in the answer area.

Answer Area

Actions	Options
User1 server role assignment	<div><div></div><div>diskadmin</div><div>serveradmin</div><div>securityadmin</div><div>setupadmin</div></div>
Transact-SQL syntax	<div><div></div><div>sys.server_file_audits</div><div>sys.server_audit_specifications</div><div>sys.server_file_permissions</div><div>sys.server_principals</div></div>

Answer:

Explanation: Box 1: securityadmin

To access log files for instances of SQL Server that are online, this requires membership in the securityadmin fixed server role.

Box 2: sys.server_audit_specifications

sys.server_audit_specifications contains information about the server audit specifications in a SQL Server audit on a server instance.

NEW QUESTION 97

You deploy a Microsoft SQL Server instance to support a global sales application. The instance includes the following tables: TableA and TableB.

TableA is a partitioned table that uses an incrementing integer number for partitioning. The table has millions of rows in each partition. Most changes to the data in TableA affect recently added data. The UPDATE STATISTICS for TableA takes longer to complete than the allotted maintenance window.

Thousands of operations are performed against TableB each minute. You observe a large number of Auto Update Statistics events for TableB.

You need to address the performance issues with each table.

In the table below, identify the action that will resolve the issues for each table. NOTE: Make only one selection in each column.

Answer Area

Action

TableA

TableB

Run the following Transact-SQL statement:

`SET AUTO_UPDATE_STATISTICS_ASYNC ON`

☐
☐

Run the following Transact-SQL statement:

`SET AUTO_UPDATE_STATISTICS OFF`

☐
☐

Run the following Transact-SQL statement and then recreate all indexes and statistics using the INCREMENTAL keyword:

`SET AUTO_CREATE_STATISTICS on (INCREMENTAL = ON)`

☐
☐

Run the sp_updatestats procedure instead of the following Transact-SQL statement:

`UPDATE STATISTICS`

☐
☐

Answer:

Explanation: Table A: Auto_update statistics off

Table A does not change much. There is no need to update the statistics on this table. Table B: SET AUTO_UPDATE_STATISTICS_ASYNC ON

You can set the database to update statistics asynchronously: ALTER DATABASE YourDBName

SET AUTO_UPDATE_STATISTICS_ASYNC ON

If you enable this option then the Query Optimizer will run the query first and update the outdated statistics afterwards. When you set this option to OFF, the Query Optimizer will update the outdated statistics before compiling the query. This option can be useful in OLTP environments

References:

<https://www.mssqltips.com/sqlservertip/2766/sql-server-auto-update-and-auto-create-statistics-options/>

NEW QUESTION 101

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

Answer: D

NEW QUESTION 104

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

Explanation: Trapping SQL Server Errors with Extended Events

One very useful usage of Extended Events is the ability to trap SQL Server error without the need to have a server trace running (which, btw, is deprecated), with the additional feature of being able to query the data as soon as it comes in. This means that we a solution to monitor and trap errors as soon as they happen can be easily created, in order to help developers to fix problems as soon as they are detected. This is really, really, really helpful especially in very big applications, where the code base is quite old and there is no-one really knowing everything of the solution.

To start a Extended Events sessions in order to trap SQL Server errors with severity greater than 10, just run the following script:

```
CREATE EVENT SESSION [error_trap] ON SERVER
```

```
ADD EVENT sqlserver.error_reported Etc.
```

References:

http://sqlblog.com/blogs/davide_mauri/archive/2013/03/17/trapping-sql-server-errors-with-extended-events.aspx

NEW QUESTION 105

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

NEW QUESTION 106

You are configuring log shipping for a Microsoft SQL Server database named salesOrders. You run the following Transact-SQL script:

```
DECLARE @LS_BackupJobId AS uniqueidentifier
DECLARE @LS_PrimaryId AS uniqueidentifier
DECLARE @SP_Add_RetCode AS int
EXEC @SP_Add_RetCode = master.dbo.sp_add_log_shipping_primary_database
    @database = N'salesOrders'
    ,@backup_directory = N'C:\Backup'
    ,@backup_share = N'\\localhost\Backup'
    ,@backup_job_name = N'LSBackup_salesOrders'
    ,@backup_retention_period = 4320
    ,@backup_compression = 1
    ,@backup_threshold = 60
    ,@threshold_alert_enabled = 1
    ,@history_retention_period = 5760
    ,@backup_job_id = @LS_BackupJobId OUTPUT
    ,@primary_id = @LAS_PrimaryId OUTPUT
    ,@overwrite = 1
IF (@@ERROR = 0 AND @SP_Add_RetCode = 0)
    BEGIN
        DECLARE @LS_BackUpScheduleUID AS uniqueidentifier
        DECLARE @LA_BackUpScheduleID AS int
        EXEC msdb.dbo.sp_add_schedule
            @schedule_name = N'LSBackupSchedule_ADATUM-SQL11'
            ,@enabled = 1
            ,@freq_type = 4
            ,@freq_interval = 1
            ,@freq_subday_type = 4
            ,@freq_subday_interval = 15
            ,@freq_recurrence_factor = 0
            ,@active_start_date = 20160720
            ,@active_end_date = 99991231
            ,@active_start_time = 0
            ,@active_end_time = 235900
            ,@schedule_uid = @LS_BackUpScheduleUID OUTPUT
            ,@schedule_id = @LS_BackupScheduleID OUTPUT
        EXEC msdb.dbo.sp_attach_schedule
            @job_id = @LS_BackupJobId
            ,@schedule_id = @LS_BackupScheduleID
        EXEC msdb.dbo.sp_update_job
            @job_id = @LS_BackupJobId
            ,@enabled = 1
    END
EXEC master.dbo.sp_add_log_shipping_alert_job
```

You need to determine the changes that the script has on the environment.

How does the script affect the environment? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

A dedicated file share [answer choice] used to store the backups.

 is
 is not

A SQL Server monitor instance [answer choice] on a server named ADATUM-SQL11.

 runs
 does not run

Backup files will be deleted after [answer choice].

 24 hours
 48 hours
 72 hours

The backup job will run every [answer choice].

 15 minutes
 60 minutes
 24 hours

Answer:

Explanation: Box 1: is

The dedicated backup file share is \\localhost\Backup Box 2: does not run

The only thing with a name related to ADATM-SQL11 is the schedule name. Box 3: 72 hours

4320 minutes equals 72 hours.

Note: @backup_retention_period=] backup_retention_period

Is the length of time, in minutes, to retain the log backup file in the backup directory on the primary server. backup_retention_period is int, with no default, and cannot be NULL.

Box 4: 15 minutes.

[@freq_subday_type =] freq_subday_type

Specifies the units for freq_subday_interval. freq_subday_type is int, with a default of 0, and can be one of these values.

Here it is 4, which means minutes.

[@freq_subday_interval =] freq_subday_interval

The number of freq_subday_type periods to occur between each execution of a job. freq_subday_interval is int, with a default of 0.

Note: Interval should be longer than 10 seconds. freq_subday_interval is ignored in those cases where freq_subday_type is equal to 1.

Here it is 15. References:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-stored-procedures/sp-add-schedule-transact-sql> <https://docs.microsoft.com/en-us/sql/relational-databases/system-stored-procedures/sp-add-log-shipping-primary>

NEW QUESTION 108

You plan to integrate an on-premises Microsoft SQL Server environment with Microsoft Azure. You need to create the authentication object so that you can connect to Azure.

Which Windows PowerShell command or commands should you run?

A. Invoke-Sqlcmd "CREATE EXTERNAL DATA SOURCE MyAzureStorage WITH (LOCATION = 'wasbs://Azure@myaccount.blob.core.windows.net/', CREDENTIAL = Pa\$\$w0rd)"

B. New-SqlAzureKeyVaultColumnMasterKeySettings-KeyUri https://myvault.vault.contoso.net:443/keys/C

C. Invoke-Sqlcmd "CREATE CREDENTIAL AzureCred WITH IDENTITY = 'AzureKey', SECRET = 'Pa\$\$w0rd'"

D. Invoke-Sqlcmd "CREATE LOGIN AzureCred WITH CREDENTIAL = 'AzureKey', PASSWORD = 'Pa\$\$w0rd'"

Answer: C

Explanation: Invoke-Sqlcmd runs a script containing statements supported by the SQL Server SQLCMD utility.

The following example creates a SQL Server credential for the Database Engine to use when accessing the Azure Key Vault using the SQL Server Connector for Microsoft Azure Key Vault.

CREATE CREDENTIAL Azure_EKM_TDE_cred WITH IDENTITY = 'ContosoKeyVault',

SECRET = 'EF5C8E094D2A4A769998D93440D8115DSECRET_DBEngine'

FOR CRYPTOGRAPHIC PROVIDER AzureKeyVault_EKM_Prov ;

References: <https://docs.microsoft.com/en-us/sql/t-sql/statements/create-credential-transact-sql>

NEW QUESTION 111

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 AsynchronousCommit 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 AsynchronousCommit 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

Explanation: SQL Server supports the following heterogeneous scenarios for transactional and snapshot replication:

Publishing data from SQL Server to non- SQL Server Subscribers.

Publishing data to and from Oracle has some restrictions.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/replication/non-sql/heterogeneous-database-replication>

NEW QUESTION 113

Note: This question is part of a series of questions that use the same scenario. For your convenience, the scenario is repeated in each question. Each question presents a different goal and answer choices, but the text of the scenario is exactly the same in each question in this series.

You are a database administrator for a company that has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instances. The environment hosts several customer databases, and each customer uses a dedicated instance. The environments that you manage are shown in the following table.

Customer	Cloud Type	Description
AdventureWorks Cycles	Private	The environment includes a database named Adventureworks that contains a single schema named ADVSchema. You must implement auditing for all objects in the ADVSchema schema. You must also implement auditing to record access to data that is considered sensitive by the company.
Tailspin Toys	Private	Tailspin Toys has a custom application that accesses a hosted database named TSpinDB . The application will monitor TSpinDB and capture information over time about which database objects are accessed and how frequently they are accessed.
Contoso, Ltd.	Private	The environment has a database named ConDB that was recently upgraded to Microsoft SQL Server 2016. Contoso reports that ConDB is slow to return results when the server is busy. You must modify the startup parameters to ConDB to optimize performance.
Wingtip Toys	Private	<p>Wingtip Toys has a database named WingDB. All tables in the database have indexes. Users report system response time is slow during peak activity periods. You observe that the performance issues are related to locking.</p> <p>Wingtip Toys receives data updates from suppliers each week. You must implement a process for importing the data into WingDB. You must use minimal logging and minimized data loss during import process.</p>
Wide World Importers	Public	The environment includes a database named WDWDB . Neither auditing nor statistics are configured for WDWDB . You must log any deletion of views and all database record update operations.

You need to implement a process for importing data into WingDB.

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.

Actions

Perform a full backup of the database, and enable the bulk-logged recovery model.

Back up the tail of the transaction log.

Drop any clustered indexes from the tables being imported into.

Perform a full backup of the database and enable the simple recovery model.

Import the data.

Rebuild any indexes on the tables being imported into.

Drop any nonclustered indexes from the tables being imported into.

Answer Area



Answer:

Explanation: Step 1: Perform a full backup of the database and enable the bulk-logged recovery model. Not: Simple recovery model.

With the Simple recovery model we cannot minimize data loss. Step 2: Import the data

Step 3: Backup the tail of the transaction log.

For databases that use full and bulk-logged recovery, database backups are necessary but not sufficient. Transaction log backups are also required.

Note: Three recovery models exist: simple, full, and bulk-logged. Typically, a database uses the full recovery model or simple recovery model. A database can be switched to another recovery model at any time.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/backup-restore/recovery-models-sql-server>

NEW QUESTION 116

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

Explanation: When you have a multiple-step job, then log all steps against a single file. Check the 'Append output to existing file' checkbox for all steps in the job that execute after the initial step. This results in a log file with all of the job steps from the last job execution. Each time the first step executes (each time the job is kicked-off) the file will be overwritten, so we have a record of the last set of output.

References: <https://www.mssqltips.com/sqlservertip/1411/verbose-sql-server-agent-logging/>

NEW QUESTION 121

You administer a Microsoft SQL Server database named Contoso. You create a stored procedure named Sales.ReviewInvoice by running the following Transact-SQL statement:


```
CREATE PROCEDURE Sales.ReviewInvoice (@SaleID int)
AS
    DECLARE @tsql nvarchar(4000) = 'SELECT SaleID, CustomerID, TotalAmount FROM Sales.SalesIn-
voice WHERE SaleID = '
    SET @tsql = @tsql + CAST(@saleID AS varchar(20))
    EXEC sp_executesql @ISQL
```

You need to create a Windows-authenticated login named ContosoSearch and ensure that ContosoSearch can run the Sales.ReviewInvoices stored procedure. Which three Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.

Transact-SQL segments

```
Use Contoso
GO
CREATE USER Contoso\SalesGroup FOR
LOGIN
Contoso\SalesGroup
```

```
ALTER ROLE db_ddladmin ADD MEMBER
Contoso\SalesGroup
GRANT VIEW SEFINITION ON Sales.-
SalesInvoice TO
Contoso\SalesGroup
```

```
use master
CREATE LOGIN Contoso\SalesGroup FROM
WINDOWS
GO
```

```
GRANT EXECUTE ON Sales.ReviewInvoice TO
Contoso\SalesGroup
GRANT SELECT ON Sales.SalesInvoice TO
Contoso\SalesGroup
```

```
use master
CREATE LOGIN Contoso\ContosoSearch WITH
PASSWORD=N'Pa$$w0rd'
GO
```

```
GRANT EXECUTE ON Sales.ReviewInvoice TO
Contoso\SalesGroup
GRANT VIEW DEFINITION ON Sales.SalesIn-
voice TO
Contoso\SalesGroup
```

```
GRANT EXECUTE, SELECT ON Sales.Review-
Invoice TO
Contoso\SalesGroup
```

Answer Area



Answer:

Explanation:

Transact-SQL segments

```
Use Contoso
GO
CREATE USER Contoso\SalesGroup FOR
LOGIN
Contoso\SalesGroup
```

```
ALTER ROLE db_ddladmin ADD MEMBER
Contoso\SalesGroup
GRANT VIEW DEFINITION ON Sales.-
SalesInvoice TO
Contoso\SalesGroup
```

```
use master
CREATE LOGIN Contoso\SalesGroup FROM
WINDOWS
GO
```

```
GRANT EXECUTE ON Sales.ReviewInvoice TO
Contoso\SalesGroup
GRANT SELECT ON Sales.SalesInvoice TO
Contoso\SalesGroup
```

```
use master
CREATE LOGIN Contoso\ContosoSearch WITH
PASSWORD=N'Pa$$w0rd'
GO
```

```
GRANT EXECUTE ON Sales.ReviewInvoice TO
Contoso\SalesGroup
GRANT VIEW DEFINITION ON Sales.SalesIn-
voice TO
Contoso\SalesGroup
```

```
GRANT EXECUTE, SELECT ON Sales.Review-
Invoice TO
Contoso\SalesGroup
```

Answer Area

```
use master
CREATE LOGIN Contoso\ContosoSearch WITH
PASSWORD=N'Pa$$w0rd'
GO
```

```
Use Contoso
GO
CREATE USER Contoso\SalesGroup FOR
LOGIN
Contoso\SalesGroup
```

```
GRANT EXECUTE, SELECT ON Sales.Review-
Invoice TO
Contoso\SalesGroup
```

NEW QUESTION 122

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question. You are the database administrator for a company that hosts Microsoft SQL Server. You manage both on-premises and Microsoft Azure SQL Database environments.

One instance hosts a user database named HRDB. The database contains sensitive human resources data. You need to grant an auditor permission to view the SQL Server audit logs while following the principle of least privilege.

Which permission should you grant?

- A. DDLAdmin
- B. db_datawriter
- C. dbcreator
- D. dbo
- E. View Database State
- F. View Server State
- G. View Definition
- H. sysadmin

Answer: F

Explanation: Unless otherwise specified, viewing catalog views requires a principal to have one of the following:

Membership in the sysadmin fixed server role.

The CONTROL SERVER permission.

The VIEW SERVER STATE permission.

The ALTER ANY AUDIT permission.

The VIEW AUDIT STATE permission (gives only the principal access to the sys.server_audits catalog view).
References: [https://technet.microsoft.com/en-us/library/cc280386\(v=sql.110\).aspx](https://technet.microsoft.com/en-us/library/cc280386(v=sql.110).aspx)

NEW QUESTION 126

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 Secondar
- B. 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 onl
- D. Set the backup priority of Server02/HA to 20. Set the backup priority of Server03/HA to 10.
- E. Set the backup preference of HaContoso to Secondary onl
- F. Set the backup priority of Server02/HA to 10. Set the backup priority of Server03/HA to 20.
- G. set the exclude replica of Server01/HA to tru
- H. Set the backup priority of Server02/HA to 10. Set the backup priority of Server03/HA to 20.

Answer: B

Explanation: Secondary only: Specifies that backups should never be performed on the primary replica. If the primary replica is the only replica online, the backup should not occur.

Backup Priority (Lowest=1, Highest=100)

Specifies your priority for performing backups on this replica relative to the other replicas in the same availability group. The value is an integer in the range of 0..100. 1 indicates the lowest priority, and 100 indicates the highest priority. If Backup Priority = 1, the availability replica would be chosen for performing backups only if no higher priority availability replicas are currently available.

References:

<https://docs.microsoft.com/en-us/sql/database-engine/availability-groups/windows/configure-backup-on-availab>

NEW QUESTION 127

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You are examining information about users, sessions, and processes in an on-premises Microsoft SQL Server Database Engine instance.

You need to return information about processes that are not idle, that belong to a specific user, or that belong to a specific session.

What should you use?

- A. Activity Monitor
- B. sp_who3
- C. SQL Server Management Studio (SSMS) Object Explorer
- D. SQL Server Data Collector
- E. SQL Server Data Tools (SSDT)
- F. SQL Server Configuration Manager

Answer: B

Explanation: Use sp_who3 to first view the current system load and to identify a session of interest. You should execute the query several times to identify which session id is most consuming the system resources.

Parameters

sp_who3 null - who is active;

sp_who3 1 or 'memory' - who is consuming the memory;

sp_who3 2 or 'cpu' - who has cached plans that consumed the most cumulative CPU (top 10); sp_who3 3 or 'count' - who is connected and how many sessions it has;

sp_who3 4 or 'idle' - who is idle that has open transactions;

sp_who3 5 or 'tempdb' - who is running tasks that use tempdb (top 5); and, sp_who3 6 or 'block' - who is blocking.

NEW QUESTION 132

You are configuring a new Microsoft SQL Server Always On Availability Group. You plan to configure a shared network location at \\DATA-C11\\SQL.

You need to create an availability group listener named AGL1 on port 1433.

In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Answer options	Answer Area
Add and configure the replica and create an availability group listener named AGL1 on port 1433.	<div> <div>⏪</div> <div>⏩</div> <div>⏴</div> <div>⏵</div> </div>
Launch the Failover Cluster Manager and configure AO-AG1 and AO-AG2 as servers in the cluster. Name the cluster WINCL1.	
Create the Always On Availability Group and select the user databases for the availability group.	
Enable SQL Server 2016 Always On Availability Group feature.	
Select the Full data synchronization method and specify the network path: \\DATA-C11\SQL.	

Answer:

Explanation: Step 1: Launch the Failover Cluster Manager and..

To support the Always On availability groups feature, ensure that every computer that is to participate in one or more availability groups meets requirements including:

* Ensure that each computer is a node in a WSFC (Windows Server Failover Clustering). Step 2: Add and configure the replica and...

All the server instances that host availability replicas for an availability group must use the same SQL Server collation.

Step 3: Enable the SQL Server 2016 Always On Availability Group feature.

Enable the Always On availability groups feature on each server instance that will host an availability replica for any availability group. On a given computer, you can enable as many server instances for Always On availability groups as your SQL Server installation supports.

Step 4: Create the Always On Availability Group and..

Using Transact-SQL to create or configure an availability group listener Step 5: Select the Full data synchronization method and...

References: [https://technet.microsoft.com/en-us/library/jj899851\(v=sc.12\).aspx](https://technet.microsoft.com/en-us/library/jj899851(v=sc.12).aspx)

<https://docs.microsoft.com/en-us/sql/database-engine/availability-groups/windows/create-or-configure-an-availa>

NEW QUESTION 133

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You are examining information about users, sessions, and processes in an on-premises Microsoft SQL Server 2016 Standard Edition server.

You need to identify waits for resources and return only the following information:

a list of all databases on the SQL Server instance, along with information about the database files, their paths, and names

a list of the queries recently executed that use most of memory, disk, and network resources

What should you use?

- A. Activity Monitor
- B. Sp_who3
- C. SQL Server Management Studio (SSMS) Object Explorer
- D. SQL Server Data Collector
- E. SQL Server Data Tools (SSDT)
- F. SQL Server Configuration Manager

Answer: E

Explanation: SQL Server Data Tools (SSDT) is a Microsoft Visual Studio environment for creating business intelligence solutions. SSDT features the Report Designer authoring environment, where you can open, modify, preview, save, and deploy Reporting Services paginated report definitions, shared data sources, shared datasets, and report parts.

References: [https://msdn.microsoft.com/en-us/library/hh272686\(v=vs.103\).aspx](https://msdn.microsoft.com/en-us/library/hh272686(v=vs.103).aspx)

NEW QUESTION 136

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it As a result these questions will not appear in the review screen.

Your company has several Microsoft SQL Server instances, Each instance hosts many databases. You observe I/O corruption on some of the instances

You need to perform the following actions:

- Identify databases where the PAGE VERIFY option is not set

- Configure full page protection for the identified databases. Solution: You run the following Transact-SQL statement:

```
SELECT NAME, page_verify_option_desc
FROM master.sys.databases
WHERE page_verify_option_desc = 'NONE'
GO
```

For each database that you identify, you run the following Transact-SQL statement:

```
ALTER DATABASE <database_name>
SET PAGE_VERIFY TORN_PAGE_DETECTION
```

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

NEW QUESTION 137

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

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 need to ensure that the databases are 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 backu
- C. Then, restore each log backup taken before the time of failure from the most recent differential backup.
- D. Restore the latest full backup.
- E. Restore the latest full backup, and restore the latest differential backu
- F. Then, restore the latest log backup.
- G. Perform a page restore.
- H. Restore the latest full backu
- I. Then, restore each differential backup taken before the time of failure from the most recent full backup.

- J. Perform a point-in-time restore.
- K. Restore the latest full backu
- L. Then, restore the latest differential backup.

Answer: H

Explanation: At restore time, before you restore a differential backup, you must restore its base. Then, restore only the most recent differential backup to bring the database forward to the time when that differential backup was created. Typically, you would restore the most recent full backup followed by the most recent differential backup that is based on that full backup.

References: [https://technet.microsoft.com/en-us/library/ms345448\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms345448(v=sql.105).aspx)

NEW QUESTION 139

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You observe that several indexes are fragmented. You need to rebuild the indexes.

What should you use?

- A. Activity Monitor
- B. Sp_who3 stored procedure
- C. Object Explorer in the SQL Server Management Studio (SSMS)
- D. SQL Server Data Collector
- E. SQL Server Data Tools (SSDT)
- F. SQL Server Configuration Manager

Answer: C

Explanation: How to: Rebuild an Index (SQL Server Management Studio) To rebuild an index

In Object Explorer, connect to an instance of the SQL Server Database Engine and then expand that instance.

Expand Databases, expand the database that contains the table with the specified index, and then expand Tables.

Expand the table in which the index belongs and then expand Indexes.

Right-click the index to rebuild and then click Rebuild.

To start the rebuild operation, click OK.

References: [https://technet.microsoft.com/en-us/library/ms187874\(v=sql.105\).aspx](https://technet.microsoft.com/en-us/library/ms187874(v=sql.105).aspx)

NEW QUESTION 144

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

NEW QUESTION 147

A company has an on-premises Microsoft SQL Server environment and Microsoft Azure SQL Database instanced. The environments host several customer databases.

You host a local database and a Stretch database that has a table named Members for one specific customer. You need to provide the customer with information about the space used in the databases.

In the table below, identify the query that provides the required information for each database. NOTE: Make only one selection in each column.

Answer Area		
Query	Local database	Stretch database
EXEC sp_spaceused @updateusage = N'TRUE'	<input type="radio"/>	<input type="radio"/>
EXEC sp_spaceused N'Company.Members'	<input type="radio"/>	<input type="radio"/>
EXEC sp_spaceused N'Company.Members', @mode = 'REMOTE_ONLY'	<input type="radio"/>	<input type="radio"/>

Answer:

Explanation:

Answer Area

Query	Local database	Stretch database
EXEC sp_spaceused @updateusage = N'TRUE'	<input type="radio"/>	<input type="radio"/>
EXEC sp_spaceused N'Company.Members'	<input checked="" type="radio"/>	<input type="radio"/>
EXEC sp_spaceused N'Company.Members', @mode = 'REMOTE_ONLY'	<input type="radio"/>	<input checked="" type="radio"/>

NEW QUESTION 152

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it As a result these questions will not appear in the review screen. You have a database named DB1 that is 640 GB and is updated frequently. You enabled log shipping for DB1 and configure backup and restore to occur every 30 minutes. You discover that the disks on the data server are almost full. You need to reduce the amount of disk space used by the log shipping process. Solution: You configure log shipping to backup and restore by using shared folder. Does this meet the goal?

- A. Yes
- B. No

Answer: B

NEW QUESTION 157

You are the database administrator for a Microsoft SQL Server instance. You develop an Extended Events package to look for events related to application performance. You need to change the event session to include SQL Server errors that are greater than error severity 15. Which five Transact-SQL segments should you use to develop the solution? To answer, move the appropriate Transact-SQL segments from the list of Transact-SQL segments to the answer area and arrange them in the correct order.

Transact-SQL segments

Answer Area

WHERE ((sqlserver.data-base_id>(4)) AND (severity>(15)))

(ACTION(sqlserver.client_app_name, sqlserver.data-base_id,sqlserver.session_id)

ALTER EVENT SESSION Contoso1 ON SERVER

)

GO

ADD EVENT sqlserver.error_reported

ADD TARGET sqlserver.error_reported

<

>

↑

↓

Answer:

Explanation: Step 1: ALTER EVENT SESSION Contoso1 ON SERVER

Step 2: ADD EVENT ... Step 3: (ACTION ... Step 4: WHERE...

Step 5:) GO

Example: To start an Extended Events sessions in order to trap SQL Server errors with severity greater than 10, just run the following script:

CREATE EVENT SESSION [error_trap] ON SERVER

ADD EVENT sqlserver.error_reported (

ACTION

(package0.collect_system_time,package0.last_error,sqlserver.client_app_name,sqlserver.client_hostname,sqlser

sqlserver.plan_handle,sqlserver.query_hash,sqlserver.session_id,sqlserver.sql_text,sqlserver.tsqf_frame,sqlserve

WHERE ([severity]>10)

)

ADD TARGET package0.event_file (

SET filename=N'D:\Program Files\Microsoft SQL Server\MSSQL11.MSSQLSERVER\MSSQL\XE\error_trap.xel'

) WITH (

STARTUP_STATE=OFF

) GO

References:

http://sqlblog.com/blogs/davide_mauri/archive/2013/03/17/trapping-sql-server-errors-with-extended-events.aspx

NEW QUESTION 158

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has several Microsoft SQL Server instances. Each instance hosts many databases. You observe I/O corruption on some of the instances.

You need to perform the following actions:

- Identify databases where the PAGE_VERIFY option is not set.
- Configure full page protection for the identified databases. Solution: You run the following Transact-SQL statement:

```
SELECT NAME, page_verify_option_desc
FROM master.sys.databases
WHERE page_verify_option_desc != 'TORN_PAGE_DETECTION'
GO
```

For each database that you identify, you run the following Transact-SQL statement:

```
ALTER DATABASE <database_name>
SET PAGE_VERIFY TORN_PAGE_DETECTION
```

Does the solution meet the goal?

- A. Yes
- B. NO

Answer: B

NEW QUESTION 161

Note: This question is part of a series of questions that use the same or similar answer choices. An answer choice may be correct for more than one question in the series. Each question is independent of the other questions in this series. Information and details provided in a question apply only to that question.

You collect performance metrics on multiple Microsoft SQL Server instances and store the data in a single repository.

You need to examine disk usage, query statistics, and server activity without building custom counters.

What should you use?

- A. Activity Monitor
- B. Sp_who3 stored procedure
- C. Object Explorer in the Microsoft SQL Server Management Studio (SSMS)
- D. SQL Server Data Collector
- E. SQL Server Data Tools (SSDT)
- F. SQL Server Configuration Manager

Answer: D

Explanation: The data collector is a core component of the data collection platform for SQL Server 2017 and the tools that are provided by SQL Server. The data collector provides one central point for data collection across your database servers and applications. This collection point can obtain data from a variety of sources and is not limited to performance data

NEW QUESTION 162

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 AsynchronousCommit Availability Mode One server configured as

an Active Secondary

D. Two servers configured in different data centers SQL Server Availability Group configured in AsynchronousCommit 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

Explanation: A Windows Server Failover Cluster (WSFC) is a group of independent servers that work together to increase the availability of applications and services. SQL Server takes advantage of WSFC services and capabilities to support Always On availability groups and SQL Server Failover Cluster Instances. References:

<https://docs.microsoft.com/en-us/sql/sql-server/failover-clusters/windows/windows-server-failover-clustering-ws>

NEW QUESTION 167

You manage a Microsoft SQL Server environment. You have a database named salesOrders that includes a table named Table1.

Table1 becomes corrupt. You repair the table.

You need to verify that all the data in Table1 complies with the schema.

How should you complete the Transact-SQL code statement? To answer, select the appropriate Transact-SQL code segments in the dialog box in the answer area.

Answer Area

USE salesOrders

DBCC

CHECKDB
CHECKCATALOG
CHECKCONSTRAINTS

 ('Table1'

ALL_CONSTRAINTS
ALL_ERRORMSGs
NO_INFOMSGs

)

Answer:

Explanation: Box 1: CHECKCONSTRAINTS

DBCC CHECKCONSTRAINTS checks the integrity of a specified constraint or all constraints on a specified table in the current database.

Box 2: ALL_CONSTRAINTS

ALL_CONSTRAINTS checks all enabled and disabled constraints on the table if the table name is specified or if all tables are checked; otherwise, checks only the enabled constraint.

Note: Syntax: DBCC CHECKCONSTRAINTS [

(

table_name | table_id | constraint_name | constraint_id

)

]

[WITH

[{ ALL_CONSTRAINTS | ALL_ERRORMSGs }] [,] [NO_INFOMSGs]

]

References:

<https://docs.microsoft.com/en-us/sql/t-sql/database-console-commands/dbcc-checkconstraints-transact-sql>

NEW QUESTION 171

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it As a result these questions will not appear in the review screen.

You have a database named DB1 that is 640 GB and is updated frequently.

You enabled log shipping for DB1 and configure backup and restore to occur every 30 minutes. You discover that the disks on the data server are almost full.

You need to reduce the amount of disk space used by the log shipping process. Solution: You enable compression for the transaction log backups:

Does this meet the goal?

A. Yes

B. No

Answer: A

NEW QUESTION 173

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: You might 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.

Note: 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.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/replication/agents/replication-agent-profiles>

NEW QUESTION 177

Overview

Application Overview

Contoso, Ltd., is the developer of an enterprise resource planning (ERP) application.

Contoso is designing a new version of the ERP application. The previous version of the ERP application used SQL Server 2008 R2.

The new version will use SQL Server 2014.

The ERP application relies on an import process to load supplier data. The import process updates thousands of rows simultaneously, requires exclusive access to the database, and runs daily.

You receive several support calls reporting unexpected behavior in the ERP application. After analyzing the calls, you conclude that users made changes directly to the tables in the database.

Tables

The current database schema contains a table named OrderDetails.

The OrderDetails table contains information about the items sold for each purchase order. OrderDetails stores the product ID, quantities, and discounts applied to each product in a purchase order.

The product price is stored in a table named Products. The Products table was defined by using the SQL_Latin1_General_CP1_CI_AS collation.

A column named ProductName was created by using the varchar data type. The database contains a table named Orders.

Orders contains all of the purchase orders from the last 12 months. Purchase orders that are older than 12 months are stored in a table named OrdersOld.

The previous version of the ERP application relied on table-level security. Stored Procedures

The current version of the database contains stored procedures that change two tables. The following shows the relevant portions of the two stored procedures:

```
CREATE PROC Sales.Proc1
AS
BEGIN TRAN
UPDATE Sales.Table1 ...
UPDATE Sales.Table2 ...
COMMIT TRAN
GO
```

```
CREATE PROC Sales.Proc2
AS
BEGIN TRAN
UPDATE Sales.Table2 ...
UPDATE Sales.Table1 ...
COMMIT TRAN
GO
```

Customer Problems Installation Issues

The current version of the ERP application requires that several SQL Server logins be set up to function correctly. Most customers set up the ERP application in multiple locations and must create logins multiple times.

Index Fragmentation Issues

Customers discover that clustered indexes often are fragmented. To resolve this issue, the customers defragment the indexes more frequently. All of the tables affected by fragmentation have the following columns that are used as the clustered index key:

Column	Data type
id	uniquedentifier
lastModified	datetime
modifiedBy	Varchar(200)

Backup Issues

Customers who have large amounts of historical purchase order data report that backup time is unacceptable. Search Issues

Users report that when they search product names, the search results exclude product names that contain accents, unless the search string includes the accent.

Missing Data Issues

Customers report that when they make a price change in the Products table, they cannot retrieve the price that the item was sold for in previous orders.

Query Performance Issues

Customers report that query performance degrades very quickly. Additionally, the customers report that users cannot run queries when SQL Server runs maintenance tasks. Import Issues During the monthly import process, database administrators receive many supports call from users who report that they cannot access the supplier data. The database administrators want to reduce the amount of time required to import the data.

Design Requirements

File Storage Requirements

The ERP database stores scanned documents that are larger than 2 MB. These files must only be accessed through the ERP application. File access must have the best possible read and write performance.

Data Recovery Requirements

If the import process fails, the database must be returned to its prior state immediately. Security Requirements

You must provide users with the ability to execute functions within the ERP application, without having direct access to the underlying tables.

Concurrency Requirements

You must reduce the likelihood of deadlocks occurring when Sales.Prod and Sales.Proc2 execute. You need to recommend a solution that resolves the missing data issue.

The solution must minimize the amount of development effort. What should you recommend?

- A. Denormalize the Products table.
- B. Denormalize the OrderDetails table.
- C. Normalize the OrderDetails table.
- D. Normalize the Products table.

Answer: D

Explanation: - Scenario:

- Missing Data Issues

Customers report that when they make a price change in the Products table, they cannot retrieve the price that the item was sold for in previous orders.

- The current database schema contains a table named OrderDetails. The OrderDetails table contains information about the items sold for each purchase order. OrderDetails stores the product ID, quantities, and discounts applied to each product in a purchase order.

The product price is stored in a table named Products.

NEW QUESTION 182

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

NEW QUESTION 187

You use SQL Server 2014 Enterprise Edition.

Your database contains a partitioned table named AuditData. AuditData is partitioned by year. Partition 1 contains data from the year 2010 and prior.

Management has decided to archive all AUDITDATA records from 2010 and prior.

Management wants the records to be removed from the database entirely and provided to the backup team as a zipped text file. The data must no longer reside in the database.

There is very little tolerance for performance degradation in your environment. You need to remove all 2010 and prior data from the AuditData table by using the least amount of system resources possible. Develop the solution by selecting and arranging the required SQL actions in the correct order.

You may not need all of the actions.

SQL Actions	Answer Area
Drop Table	
Select Into	
Switch Partition	
Move Partition	
Merge Range	
BCP	
Split Range	
Create Table	
Delete Partition	
Drop Partition	

Answer:

Explanation: Note:

- Create a new partitioned table with the partition function you want, and then insert the data from the old table into the new table by using an INSERT INTO...SELECT FROM statement.

- SPLIT RANGE (boundary_value)

Adds one partition to the partition function. boundary_value determines the range of the new partition, and must differ from the existing boundary ranges of the partition function. Based on boundary_value, the Database Engine splits one of the existing ranges into two.

Of these two, the one where the new boundary_value resides is considered the new partition.

- BCP can be used to produce the zipped text file.

- Example: splitting a partition of a partitioned table or index into two partitions

The following example creates a partition function to partition a table or index into four partitions. ALTER PARTITION FUNCTION splits one of the partitions into two to create a total of five partitions. CREATE PARTITION FUNCTION myRangePF1 (int)

AS RANGE LEFT FOR VALUES (1, 100, 1000); GO

-Split the partition between boundary_values 100 and 1000

-to create two partitions between boundary_values 100 and 500

--and between boundary_values 500 and 1000. ALTER PARTITION FUNCTION myRangePF1 () SPLIT RANGE (500);

NEW QUESTION 188

Overview

General Overview

ADatum Corporation has offices in Miami and Montreal.

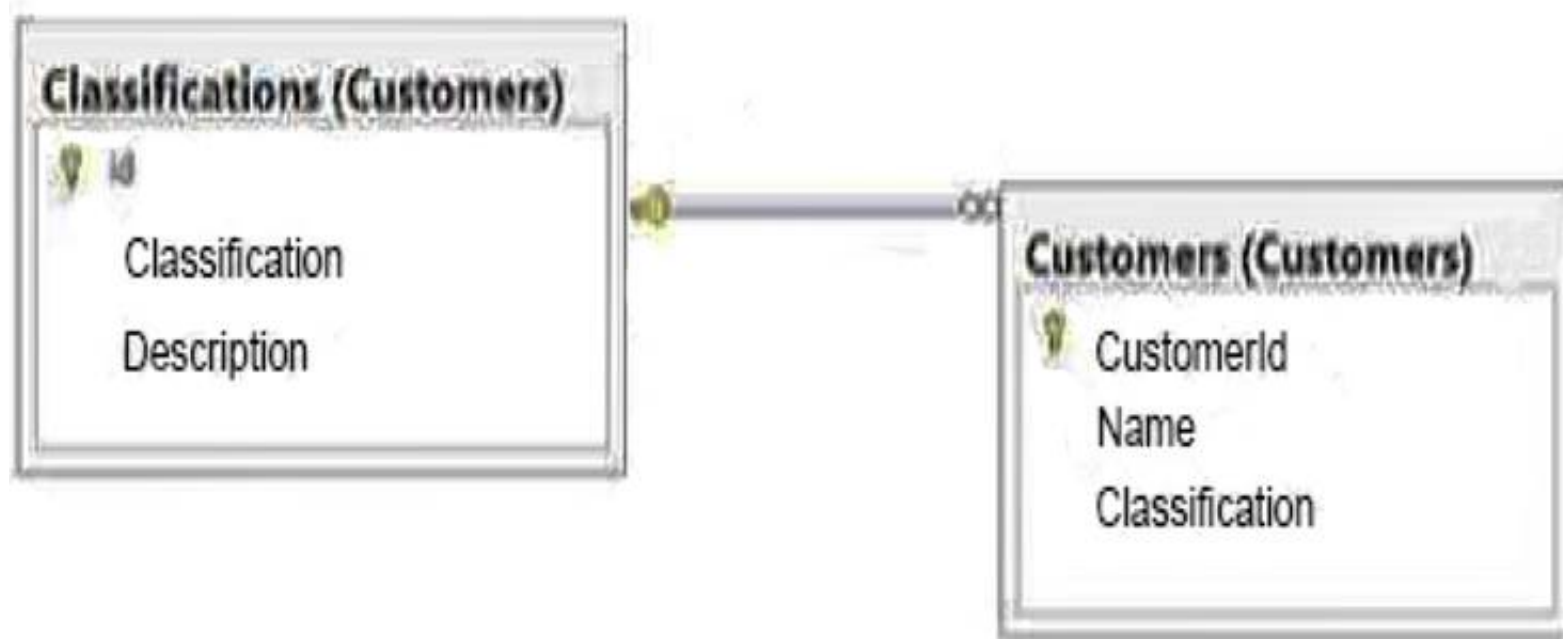
The network contains a single Active Directory forest named adatum.com. The offices connect to each other by using a WAN link that has 5-ms latency. A. Datum standardizes its database platform by using SQL Server 2014 Enterprise edition.

Databases

Each office contains databases named Sales, Inventory, Customers, Products, Personnel, and Dev. Servers and databases are managed by a team of database administrators. Currently, all of the database

administrators have the same level of permissions on all of the servers and all of the databases.

The Customers database contains two tables named Customers and Classifications. The following graphic shows the relevant portions of the tables:



The following table shows the current data in the Classifications table:

ID	Classification	Description
1	Platinum	Yearly sales over 1,000,000
2	Gold	Yearly sales over 500,000
3	Silver	Yearly sales over 100,000

The Inventory database is updated frequently. The database is often used for reporting.

A full backup of the database currently takes three hours to complete. Stored Procedures

A stored procedure named USP_1 generates millions of rows of data for multiple reports. USP_1 combines data from five different tables from the Sales and Customers databases in a table named Table1.

After Table1 is created, the reporting process reads data from Table1 sequentially several times. After the process is complete, Table1 is deleted.

A stored procedure named USP_2 is used to generate a product list. The product list contains the names of products grouped by category.

USP_2 takes several minutes to run due to locks on the tables the procedure accesses. The locks are caused by USP_1 and USP_3.

A stored procedure named USP_3 is used to update prices. USP_3 is composed of several UPDATE statements called in sequence from within a transaction.

Currently, if one of the UPDATE statements fails, the stored procedure fails. A stored procedure named USP_4 calls stored procedures in the Sales, Customers, and Inventory databases.

The nested stored procedures read tables from the Sales, Customers, and Inventory databases. USP_4 uses an EXECUTE AS clause.

All nested stored procedures handle errors by using structured exception handling. A stored procedure named USP_5 calls several stored procedures in the same database. Security checks are performed each time USP_5 calls a stored procedure.

You suspect that the security checks are slowing down the performance of USP_5. All stored procedures accessed by user applications call nested stored procedures.

The nested stored procedures are never called directly. Design Requirements

Data Recovery

You must be able to recover data from the Inventory database if a storage failure occurs. You have a Recovery Time Objective (RTO) of 5 minutes.

You must be able to recover data from the Dev database if data is lost accidentally. You have a Recovery Point Objective (RPO) of one day.

Classification Changes

You plan to change the way customers are classified. The new classifications will have four levels based on the number of orders. Classifications may be removed or added in the future. Management requests that historical data be maintained for the previous classifications. Security A group of junior database administrators must be able to manage security for the Sales database. The junior database administrators will not have any other administrative rights. A. Datum wants to track which users run each stored procedure.

Storage

ADatum has limited storage. Whenever possible, all storage space should be minimized for all databases and all backups.

Error Handling

There is currently no error handling code in any stored procedure.

You plan to log errors in called stored procedures and nested stored procedures. Nested stored procedures are never called directly.

You need to recommend a solution to minimize the amount of time it takes to execute USP_5. What should you include in the recommendation?

- A. Enable cross-database chaining.
- B. Use a server role to group all logins.
- C. Use the EXECUTE AS clause in USP_5.
- D. Copy USP.5 to each database.

Answer: A

Explanation: Scenario:

A stored procedure named USP_5 changes data in multiple databases. Security checks are performed each time USP_5 accesses a database.

- Cross-database ownership chaining occurs when a procedure in one database depends on objects in another database. A cross-database ownership chain works in the same way as ownership chaining within a single database, except that an unbroken ownership chain requires that all the object owners are mapped to the same login account. If the source object in the source database and the target objects in the target databases are owned by the same login account, SQL Server does not check permissions on the target objects.

NEW QUESTION 193

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 MEMBBR [Corpnet\User1];

Answer: C

NEW QUESTION 195

You are designing a monitoring application for a new SQL Server 2014 instance.

You need to recommend a solution to generate a report that displays the 10 most frequent wait types that occur for the instance.

What should you include in the recommendation? More than one answer choice may achieve the goal. Select the BEST answer.

- A. The SQL Server error log
- B. The sys.dm_os_wait_stats dynamic management view
- C. The DBCC SQLPERF(WAITSTATS) command
- D. SQL Server Profiler

Answer: B

Explanation: sys.dm_os_wait_stats

Returns information about all the waits encountered by threads that executed. You can use this aggregated view to diagnose performance issues with SQL Server and also with specific queries and batches.

Columns include: waiting_tasks_count

Number of waits on this wait type.

This counter is incremented at the start of each wait.

NEW QUESTION 199

You plan to create a database.

The database will be used by a Microsoft .NET application for a special event that will last for two days. During the event, data must be highly available. After the event, the database will be deleted. You need to

recommend a solution to implement the database while minimizing costs. The solution must not affect any existing applications.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

- A. Max Degree of Parallelism
- B. Resource Governor
- C. Windows System Resource Manager (WSRM)
- D. Processor affinity

Answer: D

NEW QUESTION 200

Overview

Application Overview

Contoso, Ltd., is the developer of an enterprise resource planning (ERP) application.

Contoso is designing a new version of the ERP application. The previous version of the ERP application used SQL Server 2008 R2.

The new version will use SQL Server 2014.

The ERP application relies on an import process to load supplier data. The import process updates thousands of rows simultaneously, requires exclusive access to the database, and runs daily.

You receive several support calls reporting unexpected behavior in the ERP application. After analyzing the calls, you conclude that users made changes directly to the tables in the database.

Tables

The current database schema contains a table named OrderDetails.

The OrderDetails table contains information about the items sold for each purchase order. OrderDetails stores the product ID, quantities, and discounts applied to each product in a purchase order.

The product price is stored in a table named Products. The Products table was defined by using the SQL_Latin1_General_CP1_CI_AS collation.

A column named ProductName was created by using the varchar data type. The database contains a table named Orders.

Orders contains all of the purchase orders from the last 12 months. Purchase orders that are older than 12 months are stored in a table named OrdersOld.

The previous version of the ERP application relied on table-level security. Stored Procedures

The current version of the database contains stored procedures that change two tables. The following shows the relevant portions of the two stored procedures:

```
CREATE PROC Sales.Proc1
AS
BEGIN TRAN
UPDATE Sales.Table1 ...
UPDATE Sales.Table2 ...
COMMIT TRAN
GO
```

```
CREATE PROC Sales.Proc2
AS
BEGIN TRAN
UPDATE Sales.Table2 ...
UPDATE Sales.Table1 ...
COMMIT TRAN
GO
```

Customer Problems Installation Issues

The current version of the ERP application requires that several SQL Server logins be set up to function correctly. Most customers set up the ERP application in multiple locations and must create logins multiple times.

Index Fragmentation Issues

Customers discover that clustered indexes often are fragmented. To resolve this issue, the customers defragment the indexes more frequently. All of the tables affected by fragmentation have the following columns that are used as the clustered index key:

Column	Data type
id	uniquedentifier
lastModified	datetime
modifiedBy	Varchar(200)

Backup Issues

Customers who have large amounts of historical purchase order data report that backup time is unacceptable. Search Issues

Users report that when they search product names, the search results exclude product names that contain accents, unless the search string includes the accent.

Missing Data Issues

Customers report that when they make a price change in the Products table, they cannot retrieve the price that the item was sold for in previous orders.

Query Performance Issues

Customers report that query performance degrades very quickly. Additionally, the customers report that users cannot run queries when SQL Server runs maintenance tasks. Import Issues During the monthly import process, database administrators receive many supports call from users who report that they cannot access the supplier data. The database administrators want to reduce the amount of time required to import the data.

Design Requirements

File Storage Requirements

The ERP database stores scanned documents that are larger than 2 MB. These files must only be accessed through the ERP application. File access must have the best possible read and write performance.

Data Recovery Requirements

If the import process fails, the database must be returned to its prior state immediately. Security Requirements

You must provide users with the ability to execute functions within the ERP application, without having direct access to the underlying tables.

Concurrency Requirements

You must reduce the likelihood of deadlocks occurring when Sales.Prod and Sales.Proc2 execute.

You need to recommend a solution that addresses the concurrency requirement. What should you recommend?

- A. Call the stored procedures in a Distributed Transaction Coordinator (DTC) transaction.
- B. Modify the stored procedures to update tables in the same order for all of the stored procedures.
- C. Make calls to Sales.Proc1 and Sales.Proc2 synchronously.
- D. Break each stored procedure into two separate procedures, one that changes Sales.Table1 and one that changes Sales.Table2.

Answer: B

Explanation: - Concurrency Requirements

You must reduce the likelihood of deadlocks occurring when Sales.Proc1 and Sales.Proc2 execute.

NEW QUESTION 204

Overview

Application Overview

Contoso, Ltd., is the developer of an enterprise resource planning (ERP) application.

Contoso is designing a new version of the ERP application. The previous version of the ERP application used SQL Server 2008 R2.

The new version will use SQL Server 2014.

The ERP application relies on an import process to load supplier data. The import process updates thousands of rows simultaneously, requires exclusive access to the database, and runs daily.

You receive several support calls reporting unexpected behavior in the ERP application. After analyzing the calls, you conclude that users made changes directly to the tables in the database.

Tables

The current database schema contains a table named OrderDetails.

The OrderDetails table contains information about the items sold for each purchase order. OrderDetails stores the product ID, quantities, and discounts applied to each product in a purchase order.

The product price is stored in a table named Products. The Products table was defined by using the SQL_Latin1_General_CP1_CI_AS collation.

A column named ProductName was created by using the varchar data type. The database contains a table named Orders.

Orders contains all of the purchase orders from the last 12 months. Purchase orders that are older than 12 months are stored in a table named OrdersOld.

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COMMIT TRAN
GO
```

```
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BEGIN TRAN
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UPDATE Sales.Table1 ...
COMMIT TRAN
GO
```

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Data Recovery Requirements

If the import process fails, the database must be returned to its prior state immediately. Security Requirements

You must provide users with the ability to execute functions within the ERP application, without having direct access to the underlying tables.

Concurrency Requirements

You must reduce the likelihood of deadlocks occurring when Sales.Prod and Sales.Proc2 execute. What should you recommend for the updates to Sales.TransactionHistory?

- A. a REPEATABLE READ isolation level
- B. implicit transactions
- C. query hints
- D. a SNAPSHOT isolation level

Answer: A

NEW QUESTION 209

You are designing a database named DB1.

Changes will be deployed to DB1 every Wednesday night.

You need to recommend a strategy to deploy the changes to DB1. The strategy must meet the following requirements:

The strategy must not disrupt backup operations.

DB1 must be unavailable to users while the changes are deployed.

You must be able to undo quickly the entire operation.

What should you recommend? More than one answer choice may achieve the goal. Select the BEST answer.

A. Perform a copy-only database backup before the changes are deployed.If the deployment fails, restore the database to another server and recover the original.Objects from the restored database.

B. Create a database snapshot.If the deployment fails, recover the objects from the database snapshot.

C. Create a database snapshot.If the deployment fails, revert the database to the database snapshot.

D. Perform a full database backup before the changes are deployed.If the deployment fails, restore the database to another server and recover the original objects from the restored database.

Answer: C

NEW QUESTION 210

You have a SQL Azure database named Database1.

You need to design the schema for a table named table1. Table1 will have less than one million rows.

Table1 will contain the following information for each row:

Column	Description
ID	An incremental numeric value used to identify the row
Name	A string in English
Code	An alphanumeric code that has five characters
ModifiedDate	The date of the last modification

The solution must minimize the amount of space used to store each row.

Which data types should you recommend for each column? To answer, drag the appropriate data type to the correct column in the answer area.

Data Types	Answer Area
int	ID Data type
bigint	Name Data type
varchar	Code Data type
nvarchar	ModifiedDate Data type
char	
smalldatetime	
date	

Answer:

Explanation: References:

<http://msdn.microsoft.com/en-US/library/ms187752.aspx>

NEW QUESTION 212

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