

CertifyMe

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CertifyMe - 70-432

Exam A

QUESTION 1

You are the administrator of a SQL Server 2008 instance which hosts several applications in your company.

A job named DeliveryList is created by you. This job requires a file to be written to a file server. Because the job cannot access the file server, it fails to run. You intend to configure the SQL Server Agent service so only the SQL Server Agent service has read and write access to the file server.

Which account type should you use?

- A. You should use local Service account
- B. You should use network Service account
- C. You should use domain account
- D. You should use local System account

Answer: C

Section: (none)

Explanation/Reference:

In order to access file shares, the account that runs the job should have access rights to the remote object. In this case, the user that runs the job is "sa". As it is "sa", the real user that runs the job is SQL Server Agent user.

So, use one domain account for the SQL Server Agent and grant the correct rights to this user on the file server.

QUESTION 2

You are the administrator of a SQL Server 2008 instance with a database named DB1. On DB1, quite a few logged operations are performed.

Now according to the requirement of the company CIO, you must validate that the database can be restored to a specific point in time.

Which action should you perform to achieve this goal?

- A. You should verify that the simple recovery model is used by the database
- B. You should verify that the full recovery model is used by the database.
- C. You should verify that the checksum page verify option is used by the database
- D. You should verify that the bulk-logged recovery model is used by the database

Answer: B

Section: (none)

Explanation/Reference:

Full recovery model

Provides the normal database maintenance model for databases where durability of transactions is necessary.

Log backups are required. This model fully logs all transactions and retains the transaction log records until after they are backed up. **The full recovery model allows a database to be recovered to the point of failure**, assuming that the tail of the log can be backed up after the failure. The full recovery model also supports restoring individual data pages.

QUESTION 3

You are the administrator of a SQL Server 2008 instance.

There is a SQL Server 7.0 database. You upgrade the database to the SQL Server instance.

According to the company requirement, you have to make sure that suspect pages can be detected in the database.

Which action should you perform to achieve this goal?

- A. For the database, you should turn on the TRUSTWORTHY database option
- B. For the database, the PAGE_VERIFY database option should be set to CHECKSUM
- C. For the database, the database compatibility level option should be set to 10.
- D. For the model database, the PAGE_VERIFY database option should be set to TORN_PAGE_DETECTION.

Answer: B

Section: (none)

Explanation/Reference:

When CHECKSUM is specified, the Database Engine calculates a checksum over the contents of the whole page and stores the value in the page header when a page is written to disk. When the page is read from disk, the checksum is recomputed and compared to the checksum value stored in the page header.

If the values do not match, error message 824 (indicating a checksum failure) is reported to both the SQL Server error log and the Windows event log. A checksum failure indicates an I/O path problem. To determine the root cause requires investigation of the hardware, firmware drivers, BIOS, filter drivers (such as virus software), and other I/O path components.

QUESTION 4

You are the administrator of a SQL Server 2008 instance.

You configure the SQL Server instance to use the -T1222 and -T1204 trace flags during startup.

You have to make sure that your failure recovery plan performs backup of the use of the trace flags.

Which action should you perform to achieve this goal?

- A. You should backup the master database
- B. You should backup the default.trc file
- C. You should backup the SQL Server registry hive.
- D. You should backup the resource database

Answer: C

Section: (none)

Explanation/Reference:

SQL Server Configuration Manager writes startup parameters to the registry. They take effect upon the next startup of the Database Engine.

You can override the default startup options temporarily and start an instance of SQL Server by using the following additional startup options.

-T trace#

Indicates that an instance of SQL Server should be started with a specified trace flag (**trace#**) in effect. Trace flags are used to start the server with nonstandard behavior.

QUESTION 5

You are the administrator of a SQL Server 2008 instance.

According to the company requirement, the names of all user-defined stored procedures must contain the prefix `usp_` on all instances.

Besides this, you must make sure that stored procedures that do not contain this prefix cannot be created by you.

What should you do?

- A. A policy should be created. The policy targets the name of the stored procedure that is evaluated on demand.
- B. A policy should be created. The policy targets the name of the stored procedure that is evaluated on change.
- C. A condition should be created. The condition targets the name of the stored procedure that is evaluated on change.
- D. A condition should be created. The condition targets the name of stored procedure that is evaluated on demand.

Answer: B

Section: (none)

Explanation/Reference:

Policy-Based Management is a system for managing one or more instances of SQL Server 2008. When SQL Server policy administrators use Policy-Based Management, they use SQL Server Management Studio to create policies to manage entities on the server, such as the instance of SQL Server, databases, or other SQL Server objects.

Policy-Based Management has three components:

Policy management

Policy administrators create policies.

Explicit administration

Administrators select one or more managed targets and explicitly check that the targets comply with a specific policy, or explicitly make the targets comply with a policy.

Evaluation modes

There are four evaluation modes, three of which can be automated:

On demand. This mode evaluates the policy when directly specified by the user.

On change: prevent. This automated mode uses DDL triggers to prevent policy violations.

Important:

If the nested triggers server configuration option is disabled, **On change: prevent** will not work correctly. Policy-Based Management relies on DDL triggers to detect and roll back DDL operations that do not comply with policies that use this evaluation mode. Removing the Policy-Based Management DDL triggers or disabling nest triggers, will cause this evaluation mode to fail or perform unexpectedly.

On change: log only. This automated mode uses event notification to evaluate a policy when a relevant change is made.

On schedule. This automated mode uses a SQL Server Agent job to periodically evaluate a policy.

When automated policies are not enabled, Policy-Based Management will not affect system performance.

QUESTION 6

You are the administrator of a SQL Server 2008 instance with an Internet Information Services application. This application will use anonymous access to access the SSAS instance.

You have to make sure that the application can access the SSAS instance.

What should you do?

- A. The Security\RequireClientAuthentication server configuration should be set to False
- B. The Security\RequireClientAuthentication server configuration should be set to True.
- C. The NTLM Security Support Provider Interface (SSPI) provider should be added to the Security\SecurityPackageList server configuration.
- D. The Kerberos Security Support Provider Interface (SSPI) provider should be added to the Security\SecurityPackageList server configuration

Answer: A

Section: (none)

Explanation/Reference:

Microsoft SQL Server Analysis Services supports the security server properties listed in the following table.

To view or change these properties for an instance of Analysis Services, in SQL Server Management Studio, right-click the Analysis Services instance, and then click **Properties**.

Properties

RequireClientAuthentication

A Boolean property that indicates whether client authentication is required. The default value for this property is True, which indicates that client authentication is required.

In this case, the authentication should be anonymous, thus the property should be set to **False**

QUESTION 7

You are the administrator of a SQL Server 2008 instance.

The company CIO wants you to configure FILESTREAM data and the two requirements below must be met: you must enable FILESTREAM for file I/O streaming access; remote client computers must be able to have streaming access to FILESTREAM data.

You have to make sure that FILESTREAM data is enabled.

Which service should you configure?

- A. You should configure SQL Server VSS Writer
- B. You should configure Distributed File System
- C. You should configure SQL Server
- D. You should configure SQL Server Full Text

Answer: C

Section: (none)

Explanation/Reference:

Before you can start to use FILESTREAM, you must enable FILESTREAM on the instance of the SQL Server Database Engine.

This topic describes how to enable FILESTREAM by using SQL Server Configuration Manager.

To enable and change FILESTREAM settings

- On the **Start** menu, point to **All Programs**, point to **Microsoft SQL Server 2008**, point to **Configuration Tools**, and then click **SQL Server Configuration Manager**.
- In the list of services, right-click **SQL Server Services**, and then click **Open**.
- In the **SQL Server Configuration Manager** snap-in, locate the instance of SQL Server on which you want to enable FILESTREAM.
- Right-click the instance, and then click **Properties**.
- In the **SQL Server Properties** dialog box, click the **FILESTREAM** tab.
- Select the **Enable FILESTREAM for Transact-SQL access** check box.
- If you want to read and write FILESTREAM data from Windows, click **Enable FILESTREAM for file I/O streaming access**. Enter the name of the Windows share in the **Windows Share Name** box.
- If remote clients must access the FILESTREAM data that is stored on this share, select **Allow remote clients to have streaming access to FILESTREAM data**.
- Click **Apply**.
- In SQL Server Management Studio, click **New Query** to display the Query Editor.
- In Query Editor, enter the following Transact-SQL code:

```
EXEC sp_configure filestream_access_level, 2  
RECONFIGURE
```

QUESTION 8

You are the administrator in charge of two instances both of which run on the same computer. One is a SQL Server 2008 instance;
another is a SQL Server 2005 instance.

There is a database named DB1 in the SQL Server 2008 instance. DB1 uses the Fulltext indexes. Several records that include the word "root" are added to DB1. An empty resultset is returned when the Fulltext index is queried for the word "root."

You have to make sure the query can return records that contain the word "root".

What should you do?

- A. You should terminate and restart the MSFTESQL service
- B. You should rebuild the full-text index
- C. The word "root" should be added to the stop list
- D. The word "root" should be added to the thesaurus file

Answer: B

Section: (none)

Explanation/Reference: Updating a Full-Text Index

Like regular SQL Server indexes, full-text indexes can be automatically updated as data is modified in the associated tables. This is the default behavior. Alternatively, you can keep your full-text indexes up-to-date manually or at specified scheduled intervals. Populating a full-text index can be time-consuming and resource-intensive, therefore, index updating is usually performed as an asynchronous process that runs in the background and keeps the full-text index up to date after modifications in the base table. Updating a full-text index immediately after each change in the base table can be resource-intensive. Therefore, if you have a very high update/insert/delete rate, you might experience some degradation in query performance. If

this occurs, consider scheduling manual change tracking updates to keep up with the numerous changes from time to time, rather than competing with queries for resources.

To monitor the population status, use either the FULLTEXTCATALOGPROPERTY or OBJECTPROPERTYEX functions. To get the catalog population status, run the following statement:

```
SELECT FULLTEXTCATALOGPROPERTY('AdvWksDocFTCat', 'Populatestatus');
```

Typically, if a full population is in progress, the result returned is 1.

QUESTION 9

You are the administrator of a SQL Server 2008 instance.

You make sure that all SQL Server instances are consistently configured for naming conventions, security settings, force index creation and avoidance of data fragmentation.

Which action should you perform to achieve this goal?

- A. You should use the Database Engine Tuning Advisor.
- B. In Microsoft SQL Server Management Studio, you should create a maintenance plan
- C. You should use the SQL Server Configuration Manager
- D. In Microsoft SQL Server Management Studio, you should create a policy

Answer: D

Section: (none)

Explanation/Reference:

Policy-Based Management lets you monitor best practices for the SQL Server Database Engine.

SQL Server 2008 provides a set of policy files that you can import as best practice policies, and then evaluate the policies against a target set that includes instances, instance objects, databases, or database objects. In parallel, you can create your own set of policy to enforce configuration, security settings and more.

You can evaluate policies manually, set policies to evaluate a target set according to a schedule, or set policies to evaluate a target set according to an event.

QUESTION 10

You are the administrator of a SQL Server 2008 instance with a database named Dworks.

The Dworks database has a table named Orderthings. The Orderthings table is partitioned on the OrderId column.

The first partition contains integer values greater than 100,000, while the second partition contains integer values between 1 and 100,000.

You have to add a new partition. The new partition should contain integer values greater than 200,000.

What should you do?

- A. A new partition function should be created
- B. You should change the existing partition scheme
- C. You should use a Merge clause to change the existing partition function
- D. You should use a Split clause to change the existing partition function

Answer: D

Section: (none)

Explanation/Reference:

Alters a partition function by splitting or merging its boundary values. By executing ALTER PARTITION FUNCTION, one partition of any table or index that uses the partition function can be split into two partitions, or two partitions can be merged into one less partition.

```
ALTER PARTITION FUNCTION partition_function_name ()
{
    SPLIT RANGE ( boundary_value )
    | MERGE RANGE ( boundary_value )
} [ ; ]
```

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.

Important: A filegroup must exist online and be marked by the partition scheme that uses the partition function as NEXT USED to hold the new partition. Filegroups are allocated to partitions in a CREATE PARTITION SCHEME statement. If a CREATE PARTITION SCHEME statement allocates more filegroups than necessary (fewer partitions are created in the CREATE PARTITION FUNCTION statement than filegroups to hold them), then there are unassigned filegroups, and one of them is marked NEXT USED by the partition scheme. This filegroup will hold the new partition. If there are no filegroups marked NEXT USED by the partition scheme, you must use ALTER PARTITION SCHEME to either add a filegroup, or designate an existing one, to hold the new partition. A filegroup that already holds partitions can be designated to hold additional partitions. Because a partition function can participate in more than one partition scheme, all the partition schemes that use the partition function to which you are adding partitions must have a NEXT USED filegroup. Otherwise, ALTER PARTITION FUNCTION fails with an error that displays the partition scheme or schemes that lack a NEXT USED filegroup.

QUESTION 11

You are the administrator of a SQL Server 2008 instance with a database named Dworks.

You get a report from users saying that DB1 meets deadlock problems. As the technical support, you have to capture the deadlock information to the SQL Server error log.

What should you do?

- A. For the AdventureWorks database, enable Server Auditing
- B. First you should set the appropriate trace flags as a startup parameter, and then restart the SQL Server instance
- C. You should configure the data collector and make it capture the deadlock graphs
- D. You should configure a SQL Profiler trace, and make it capture the deadlock graphs

Answer: B

Section: (none)

Explanation/Reference:

To identify a deadlock, you must first obtain log information. If you suspect a deadlock, you must gather information about the (SPIDs) and the resources that are involved in the deadlock. To do this, add the -T1204 and the -T3605 startup parameters to SQL Server.

The startup parameters will take effect when SQL Server is stopped and then re-started.

The -T1204 startup parameter collects information about the process and the resources when the deadlock detection algorithm encounters a deadlock. **The -T3605 startup parameter writes this information to the SQL Server error logs.**

If you do use the -T1205 startup parameter, the following is a sample of the output that will be in the SQL Server error log:


```
2003-05-14 11:46:26.76 spid4 Starting deadlock search 1
2003-05-14 11:46:26.76 spid4 Target Resource Owner:
2003-05-14 11:46:26.76 spid4 ResType:LockOwner Stype:'OR' Mode: S SPID:55 ECID:0 Ec:(0x43CAB580) Value:0x42bdf340
2003-05-14 11:46:26.76 spid4 Node:1 ResType:LockOwner Stype:'OR' Mode: S SPID:55 ECID:0 Ec:(0x43CAB580)
Value:0x42bdf340
2003-05-14 11:46:26.76 spid4
2003-05-14 11:46:26.76 spid4 End deadlock search 1 ... a deadlock was not found.
2003-05-14 11:46:26.76 spid4 -----
2003-05-14 11:46:31.76 spid4 -----
2003-05-14 11:46:31.76 spid4 Starting deadlock search 2
```

SOURCE: <http://support.microsoft.com/kb/832524/en-us>

QUESTION 12

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. There is a database named Dworks in the instance.

The Dworks database has a table named Orderthings. According to the company requirement, you have to export all data from the Orderthings table to a file.

During the export, you must make sure that the data export process is saved for reuse and a Microsoft Office Open XML document format is used.

What should you do?

- A. You should run the bulk copy program utility along with an output file and no format file
- B. You should run the SQLCmd utility and save the output to a file
- C. You should run the SQL Import and Export Data Wizard and save the output to a file.
- D. You should run the bulk copy program utility along with a format file and an output file.

Answer: C

Section: (none)

Explanation/Reference:

The SQL Server Import and Export Wizard provides the simplest method of copying data between data sources and of constructing basic packages.

Save and run a package.

If the wizard is started from SQL Server Management Studio or the command prompt, the package can run immediately. You can optionally save the package to the SQL Server **msdb** database or to the file system. For more information about the **msdb** database, see Managing Packages.

When you save the package you can set the package protection level, and if the protection level uses a password, provide the password.

QUESTION 13

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. There is a database which is named Sellings in the instance.

The Sellings database contains a table named Productions. The table is used to stores information about all types of products.

The Productions table is often queried by users on the basis of the RadioSize column. The RadioSize column contains the NULL value for all products other than Radios. Currently no index exists on the RadionSize column.

According to the requirement of the company CIO, you have to optimize the query performance and reduce

the effect on the disk space to the least.

Which action should you perform to achieve this goal?

- A. On the Products table, you should create a view.
- B. On the RadioSize column, you should create a clustered index
- C. On the RadioSize column, you should create a filtered index
- D. On the RadioSize column, you should create a unique clustered index

Answer: C

Section: (none)

Explanation/Reference:

A filtered index is an optimized nonclustered index, especially suited to cover queries that select from a well-defined subset of data. It uses a filter predicate to index a portion of rows in the table. A well-designed filtered index can improve query performance, reduce index maintenance costs, and reduce index storage costs compared with full-table indexes.

Filtered indexes can provide the following advantages over full-table indexes:

- **Improved query performance and plan quality**
- **Reduced index maintenance costs**
- **Reduced index storage costs**

Creating a filtered index can reduce disk storage for nonclustered indexes when a full-table index is not necessary. You can replace a full-table nonclustered index with multiple filtered indexes without significantly increasing the storage requirements.

QUESTION 14

You work in a Organization which is named Wiikigo Corp. The Organization uses SQL Server 2008. You are the administrator of the Organization database.

Now you are in charge of a SQL Server 2008 instance.

Look at the following query:

```
SELECT s.*, i.*
FROM SensitiveTbl AS s
INNER JOIN InsensitiveTbl AS i
ON i.OrganizationName = s.OrganizationName
```

You use the above query to join two tables on a column named OrganizationName.

The following error is returned when you execute the query.

"Msg 468, Level 16, State 9, Line 17 Cannot resolve the collation conflict between 'SQL_Latin1_General_CP1_CS_AS' and 'SQL_Latin1_General_CP1_CI_AS' in the equal to operation."

The ON clause of the query has to be modified so that it can perform a case-sensitive joinsuccessfully.

What should you do?

- A. ON LOWER(i.OrganizationName) = LOWER(s.OrganizationName)
- B. ON UPPER(i.OrganizationName) = UPPER(s.OrganizationName)
- C. ON i.OrganizationName = s.OrganizationName COLLATE SQL_Latin1_General_CP1_CS_AS
- D. ON i.OrganizationName = s.OrganizationName COLLATE SQL_Latin1_General_CP1_CI_AS

Answer: C

Section: (none)

Explanation/Reference:

COLLATE is a clause that can be applied to a database definition or a column definition to define the collation, or to a character string expression to apply a collation cast.

Casting the collation of an expression. You can use the COLLATE clause to cast a character expression to a certain collation. Character literals and variables are assigned the default collation of the current database. Column references are assigned the definition collation of the column. For the collation of an expression, see Collation Precedence.

Here, one table is Case Sensitive and the other is Case Insensitive. You should use the most "restrictive" collation (SQL_Latin1_General_CP1_CS_AS) to make the comparison or you should have the same error message

QUESTION 15

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. There is a database named OrderIn in the instance. The OrderIn database contains a table which is named OrdeSend.

A column named SendSite which is of the Geography data type has been added to the OrdeSend. The OrdeSend table contains no indexes.

On the SendSite point, you have to create a spatial index.

What should you do first?

- A. You must make sure that the SendSite column does not allow NULL values.
- B. You should define a primary key for the OrdeSend table
- C. For the OrdeSend table, you should create a clustered index
- D. First, you should copy the OrdeSend data to a temporary table, then you should truncate the existing OrdeSend table.

Answer: B

Section: (none)

Explanation/Reference:

Restrictions on Spatial Indexes

A spatial index can be created only on a column of type **geometry** or **geography**.

Spatial indexes can be defined only on a table that has a primary key. The maximum number of primary key columns on the table is 15.

The maximum size of index key records is 895 bytes. Larger sizes raise an error.

Note:

Primary key metadata cannot be changed while a spatial index is defined on a table.

Spatial Indexes cannot be specified on indexed views.

You can create up to 249 spatial indexes on any of the spatial columns in a supported table. Creating more than one spatial index on the same spatial column can be useful, for example, to index different tessellation parameters in a single column.

You can create only one spatial index at a time. For more information, see CREATE SPATIAL INDEX (Transact-SQL) or How to: Create a Spatial Index (SQL Server Management Studio).

An index build cannot make use of available process parallelism.

QUESTION 16

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. The server has a very large database named DB1. An application which is constantly available uses DB1.

Now you get a report from users, in the report users complain that server has a poor performance. As the technical support, you have to improve the performance of the application by using the Database Engine Tuning Advisor.

Besides this, you must make sure that the action of analyzing the workload will not affect the performance of the production server.

What should you do?

- A. On the local server, enable the XP_MSVER stored procedure
- B. On the remote server, enable the XP_MSVER stored procedure.
- C. On the production server, use the dta.exe utility along with an XML input file.
- D. You should configure a test server that has a similar hardware configuration. Use the dta.exe utility on the test server along with an XML input file

Answer: D

Section: (none)

Explanation/Reference:

The **dta** utility provides a command prompt executable file that you can use to tune databases. It enables you to use Database Engine Tuning Advisor functionality in batch files and scripts.

The **dta** utility takes trace files, trace tables, and Transact-SQL scripts as workloads. It also takes XML input that conforms to the Database Engine Tuning Advisor XML schema, which is available at this Microsoft Web site.

Consider the following before you begin tuning a workload with the **dta** utility:

- When using a trace table as a workload, that table must exist on the same server that Database Engine Tuning Advisor is tuning. If you create the trace table on a different server, then move it to the server that Database Engine Tuning Advisor is tuning.
- Make sure that tracing has stopped before using a trace table as a workload for Database Engine Tuning Advisor. Database Engine Tuning Advisor does not support using a trace table to which trace events are still being written as a workload.
- If a tuning session continues running longer than you had anticipated it would run, you can press CTRL +C to stop the tuning session and generate recommendations based on the analysis **dta** has completed up to this point. You will be prompted to decide whether you want to generate recommendations or not. Press CTRL+C again to stop the tuning session without generating recommendations.

Here, we don't want to affect the production server. Thus, we will run the dat.exe utility on the test server.

QUESTION 17

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. Today you notice that applications that run on the server have poor performances. You doubt that this has something to do with table scans.

You have to capture the appropriate information by using an appropriate Windows System Monitor object.

Which performance object should you use?

- A. You should use SQLServer:Buffer Manager
- B. You should use SQLServer:Memory Manager
- C. You should use SQLServer:Databases
- D. You should use SQLServer:Access Methods

Answer: D

Section: (none)

Explanation/Reference:

SQL Server, Access Methods Object

The **Access Methods** object in SQL Server provides counters to monitor how the logical data within the database is accessed.

SQL Server Access Methods counters

Full Scans/sec

Number of unrestricted full scans per second. These can be either base-table or full-index scans.

QUESTION 18

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. The server hosts databases for several mission-critical applications.

Microsoft SQL Server Management Studio executes queries and it has some effect. Now you intend to limit the effect by using the Resource Governor.

You have to make sure that queries initiated through SQL Server Management Studio is less than 20 percent of CPU utilization, besides this, you must make sure that queries initiated by the mission-critical applications can consume 100 percent of CPU utilization when required.

Which action should you perform to achieve this goal?

- A. You should alter the default resource pool and set the MAX_CPU_PERCENT option to 80. Then assign this resource pool to the workload group used by SQL Server Management Studio.
- B. First, you should create a new resource pool and set the MAX_CPU_PERCENT option to 20. Then assign this resource pool to the workload group used by SQL Server Management Studio.
- C. You should alter the default resource pool and set the MAX_CPU_PERCENT option to 20. Then assign this resource pool to the workload group used by the mission-critical applications.
- D. First, you should create a new resource pool and set the MAX_CPU_PERCENT option to 80. Then assign this resource pool to the workload group used by the mission-critical applications.

Answer: B

Section: (none)

Explanation/Reference:

You can use Resource Governor in a variety of ways to monitor and manage the workloads on your SQL Server system. This topic provides an overview of how to configure Resource Governor and illustrates how Resource Governor can be used. The scenarios that are provided include Transact-SQL code examples for creating and changing workload groups and resource pools.

Configuring Resource Governor

After you install SQL Server 2008, Resource Governor is available for use but is not enabled. The internal

and default workload groups and their corresponding resource pools exist.

To create and use your own resource pools and workload groups, you must complete the following steps:

1. **Create a resource pool that has the limits you specify.**
2. Create a workload group that has the limits and policies that you specify, and identify the resource pool to which the workload group belongs.
3. Define and activate a classifier function that you want to use for incoming requests.

When the preceding steps are completed, you can see the active Resource Governor configuration and the state of all active requests that are classified.

QUESTION 19

You work in a company which is named Wiikigo Corp. The company uses SQL Server 2008. You are the administrator of the company database.

Now you are in charge of a SQL Server 2008 instance. You are going to use the data collector to gather performance data periodically on all instances.

You must store all collected data in the same database. This database is hosted on a single instance. Every five hours, you have to collect and load performance data in the management data warehouse.

Which data collection process should you implement?

- A. You should create a cached data collection
- B. You should create an on-demand non-cached data collection
- C. You should create a scheduled non-cached data collection.
- D. You should create two different SQL Agent jobs. The two jobs are scheduled at the same time. One job uploads the data collection and the other job creates a data collection.

Answer: C

Section: (none)

Explanation/Reference:

Data collection and upload

Specifies how data is collected and uploaded to the management data warehouse. Pick one of the following options.

Non-cached. Collection and data upload on the same schedule.

When selected, specify one of the following:

- On-demand. Data is collected and uploaded on demand.
- **Schedule.** *Data is collected and uploaded according to a schedule. Click Pick to select from a predefined list of schedules, or click New to create a new schedule.*

QUESTION 20

You are the administrator of a SQL Server 2008. According to the company requirement, you are designing a consolidated repository of performance data.

You must make sure that the four requirements below are met:

1. the data collector is used to gather performance information
2. a single database stores performance information for all instances
3. performance information that is older than 15 days is deleted
4. reduce the administrative effort to manage performance to the least.

Which action should you perform to achieve this goal?

- A. You should create a SQL Agent job process on each instance to store and delete performance data in a single database for all instances.
- B. You should configure a management data warehouse process on each instance, then use this process to store and delete performance data in a single database for all instances.
- C. You should configure an automated server-side trace process on each instance, then use this process to store and delete performance data in a single database for all instances.
- D. You should create and schedule a single Microsoft SQL Service Integration Services (SSIS) package process, then use this process to store and delete performance data in a single database for all instances.

Answer: B

Section: (none)

Explanation/Reference:

The data collector is a component installed on a SQL Server server, running all the time or on a user-defined schedule, and collecting different sets of data. The **data collector then stores the collected data in a relational database (solve point 2)** known as the management data warehouse.

The data collector is a core component of the data collection platform for SQL Server 2008 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. (solve point 4)**

This collection point can obtain data from a variety of sources and **is not limited solely to performance data (solve point 1)**, unlike SQL Trace.

The data collector enables you to adjust the scope of data collection to suit your test and production environments. The data collector also uses a data warehouse, a relational database that enables you to **manage the data you collect by setting different retention periods for your data (solve point 3)**.

The data collector supports dynamic tuning for data collection and is extensible through its API.

QUESTION 21

You are the administrator of a SQL Server 2008, with a report often executed during business time. There is a stored procedure that is used as the data source for the report.

You get a report from users saying that they receive the data returned by the report but the data is inconsistent.

As the technical support, you check and find that phantom reads cause this problem.

You have to make sure that consistent data is returned by the report while not affecting other users.

Which action should you perform to achieve this goal?

- A. You should configure the database for Read Committed Snapshot isolation.
- B. You should modify the stored procedure to use the Snapshot isolation level
- C. You should configure the database for Auto Update Statistics asynchronously
- D. You should modify the stored procedure to use the Repeatable Read isolation level

Answer: B

Section: (none)

Explanation/Reference:

Phantom Reads occur when one transaction accesses a range of data more than once and a second transaction inserts or deletes rows that fall within that range between the first transaction's read attempts. This can cause "phantom" rows to appear or disappear from the first transaction's perspective.

SNAPSHOT

Specifies that data read by any statement in a transaction will be the transactionally consistent version of the data that existed at the start of the transaction. The transaction can only recognize data modifications that were committed before the start of the transaction. Data modifications made by other transactions after the start of the current transaction are not visible to statements executing in the current transaction. **The effect is as if the statements in a transaction get a snapshot of the committed data as it existed at the start of the transaction.**

Except when a database is being recovered, SNAPSHOT transactions do not request locks when reading data. SNAPSHOT transactions reading data do not block other transactions from writing data. Transactions writing data do not block SNAPSHOT transactions from reading data.

During the roll-back phase of a database recovery, SNAPSHOT transactions will request a lock if an attempt is made to read data that is locked by another transaction that is being rolled back. The SNAPSHOT transaction is blocked until that transaction has been rolled back. The lock is released immediately after it has been granted.

The ALLOW_SNAPSHOT_ISOLATION database option must be set to ON before you can start a transaction that uses the SNAPSHOT isolation level. If a transaction using the SNAPSHOT isolation level accesses data in multiple databases, ALLOW_SNAPSHOT_ISOLATION must be set to ON in each database.

A transaction cannot be set to SNAPSHOT isolation level that started with another isolation level; doing so will cause the transaction to abort. If a transaction starts in the SNAPSHOT isolation level, you can change it to another isolation level and then back to SNAPSHOT. A transaction starts the first time it accesses data.

A transaction running under SNAPSHOT isolation level can view changes made by that transaction. For example, if the transaction performs an UPDATE on a table and then issues a SELECT statement against the same table, the modified data will be included in the result set.

QUESTION 22

You are the administrator of a SQL 2008 two cluster-ready nodes. You intend to perform an installation of a SQL Server 2008 mission-critical cluster. Constant availability is needed by the mission-critical cluster.

You have to configure the SQL Server cluster to failover and reduce the service disruption to the least.

Which failover option should you use?

- A. You should allow failback only during non-business hours
- B. You should immediately allow failback
- C. You should prevent automatic failback
- D. You should allow failback only during business hours

Answer: C

Section: (none)

Explanation/Reference:

Failover/Failback Strategies

An overall cluster failover/failback policy is recommended. Failovers can be controlled in terms of a threshold, meaning that after a certain point, a resource will not be failed over. There are two levels of thresholds: resource and cluster. Depending on how the resource is configured, it can affect the group failing over to another node.

In the event of a failover, the cluster group containing the SQL Server resources can be configured to fail back to the primary node when and if it becomes available again.

By default, this option is set to off because usually there is no problem with continuing on the secondary node. **This setting provides an opportunity to analyze and repair the problem on the failed node.**

It will also minimize the service disruption.

QUESTION 23

You are the administrator of a SQL Server 2008 instance with a database named Dworks. You are log shipping the Adventureworks database to a remote SQL Server 2008 instance.

The primary SQL Server instance required a restart during the weekend. But you notice that log shipping has stopped working after the weekend. You have to check log shipping of the Adventureworks database and find out the problem.

What should you do?

- A. You should use the EXTENDED_LOGICAL_CHECKS option to execute a DBCC CHECKDB statement on the AdventureWorks database by.
- B. You should identify whether the SQL Server Agent is started on the primary server.
- C. You should identify whether the AdventureWorks database uses the Simple recovery model.
- D. You should identify whether the SQL Server Volume Shadow Copy Service (VSS) Writer is started on the primary server

Answer: B

Section: (none)

Explanation/Reference:

The logshipping is base on a set of SQL Server Agent jobs.

One on the primary: Bckup transaction log

Two on the secondary: Copy the transaction backup and Restore the transaction log.

So, verify the SQL Server Agent Service state.

QUESTION 24

You are the administrator of a SQL Server 2008 instance with a database named Dworks. The Dworks database has the Products table. Now you have to replicate the Products table to the SQL Server instances at remote locations, so you create a Merge Replication topology and a Publication to do this.

The Publication has a 21-day retention period. There is a user who goes on a business trip, 30 days later he comes back and finds that data in his database is not the latest.

The Windows Event log states the following error message: "Replication: expired subscription dropped."

You must get the latest data in the user's database and make sure that future data changes are appropriately replicated.

Which action should you perform to achieve this goal?

- A. You should recreate the publication
- B. You should upload unsynchronized changes.
- C. You should reinitialize the publication and generate a new snapshot at once.
- D. You should upload unsynchronized changes, and then reinitialize the publication

Answer: C

Section: (none)

Explanation/Reference:

Merge replication uses the publication retention period (the **@retention** and **@retention_period_unit** parameters of **sp_addmergepublication** (Transact-SQL)). **When a subscription expires, it must be reinitialized, because metadata for the subscription is removed.** Subscriptions that are not reinitialized are dropped by the **Expired subscription clean up** job that runs on the Publisher. By default, this job runs daily; it removes all push subscriptions that have not synchronized for double the length of the publication retention period. For example:

- If a publication has a retention period of 14 days, a subscription can expire if it has not synchronized within 14 days.

If the Publisher is running SQL Server 2005 or a later version and the agent for the subscription is from SQL Server 2005 or a later version, a subscription only expires if there have been changes to the data in that subscription's partition. For example, suppose a Subscriber receives customer data only for customers in Germany. If the retention period is set to 14 days, the subscription expires on day 14 only if there have been changes to the German customer data in the last 14 days.

- From 14 days to 27 days after the last synchronization, the subscription can be reinitialized.
- At 28 days after the last synchronization, the subscription is dropped by the **Expired subscription clean up** job. If a push subscription expires, it is completely removed, but pull subscriptions are not. You must clean up pull subscriptions at the Subscriber. For more information, see *How to: Delete a Pull Subscription* (Replication Transact-SQL Programming).

QUESTION 25

You are the administrator of a SQL Server 2008 cluster in a high security environment. You intend to configure and use encrypted connections for the clustered virtual SQL Server.

You have to install a certificate. The certification will be used for encryption.

What should you do?

- A. In the cluster quorum drive, install the encryption certificate
- B. In the SQL Server shared disk, install the encryption certificate
- C. in the cluster group, install the encryption certificate.
- D. On each individual node, install the encryption certificate

Answer: D

Section: (none)

Explanation/Reference:**Encryption on a Cluster**

If you want to use encryption with a failover cluster, ***you must install the server certificate with the fully qualified DNS name of the failover clustered instance on all nodes in the failover cluster.*** For example, if you have a two-node cluster, with nodes named **test1.your company.com** and **test2.your company.com** and a failover clustered instance of SQL Server named **fcisql**, you must obtain a certificate for **fcisql.your company.com** and install the certificate on both nodes. To configure the failover cluster for encryption, you can then select the ForceEncryption check box on the Protocols for <server> property box of SQL Server Network Configuration.

QUESTION 26

You are the administrator SQL 2008 instance with a database named DB1. The company stores clients data in DB1.

Clients can access their profile data by using a Web application.

You must ensure the security of the customer data, you must ensure that even if the backup media is lost,

data files,
log files and subsequent backups and so on are quite safe.

Which action should you perform to achieve this goal?

- A. For both the CustomerDB database and the master database, enable Transparent Database Encryption.
- B. You should use the built-in encryption functions to encrypt the sensitive data at the cell level.
- C. You should make the CustomerDB database accessible only through stored procedures and functions.
- D. For the CustomerDB database, enable Transparent Database Encryption and back up the transaction log.

Answer: D

Section: (none)

Explanation/Reference:

You can take several precautions to help secure the database such as designing a secure system, encrypting confidential assets, and building a firewall around the database servers. However, in a scenario where the physical media (such as drives or backup tapes) are stolen, a malicious party can just restore or attach the database and browse the data. One solution is to encrypt the sensitive data in the database and protect the keys that are used to encrypt the data with a certificate. This prevents anyone without the keys from using the data, but this kind of protection must be planned in advance.

Transparent data encryption (TDE) performs real-time I/O encryption and decryption of the data and log files. The encryption uses a database encryption key (DEK), which is stored in the database boot record for availability during recovery. The DEK is a symmetric key secured by using a certificate stored in the master database of the server or an asymmetric key protected by an EKM module. TDE protects data "at rest", meaning the data and log files. It provides the ability to comply with many laws, regulations, and guidelines established in various industries. **This enables software developers to encrypt data by using AES and 3DES encryption algorithms without changing existing applications.**

QUESTION 27

You are the administrator of a SQL Server 2008 instance. There is an internal application which uses Analysis Services and Reporting Services.

According to the requirement of company security policy, the surface area for all the deployed components of SQL Server 2008 should be configured.

You have to implement the security policy and devise a method to evaluate the security policy against other database servers.

What should you do?

- A. You should create policies based on the appropriate facets. Apply the policies against a server group. The server group includes the database servers that need to be configured
- B. You should create a Transact-SQL script based on the sp_configure stored procedure. Use a configuration server to run the script against a server group that includes the database servers that need to be configured
- C. You should edit the RSReportServer.config configuration file. Distribute the file to all database servers that need to be configured
- D. You should analyze your database servers by using the SQL Server Best Practices Analyzer (BPA). Implement the recommendations of the BPA

Answer: A

Section: (none)

Explanation/Reference:

The Enterprise Policy Management (EPM) Framework leverages and extends the new Microsoft SQL Server 2008 Policy-Based Management feature across an entire SQL Server enterprise, including down-level instances of SQL Server such as SQL Server 2000 and SQL Server 2005.

In addition, the EPM Framework can be used to:

- Automate the evaluation of policies against a defined set of SQL Server instances, including SQL Server 2000 and SQL Server 2005.
- Centralize the policy evaluation history to a single source for enterprise policy reporting.
- Define best practices for implementing policy evaluation in extremely large enterprise environments.

In order to manage multiple servers, we have the ability in SQL Server 2008 to create server groups and apply the policies to this groups

QUESTION 28

You are the administrator of a SQL Server 2008 instance with a database named Service with a database user named ServiceGreatUser.

A SQL Server login named ServiceGreatLogin maps to ServiceGreatUser in the Service database. According to the requirement of the company CIO, the database user can only perform the two tasks below:

- the database user executes all stored procedures that currently exist in the Sales database
- executes all stored procedures that will be created in the Sales database.

What should you do to ensure this?

- A. ServiceGreatUser should be added to the appropriate fixed database roles.
- B. You should assign the appropriate object-level permissions to ServiceGreatUser
- C. You should assign the appropriate server-level permissions to ServiceGreatLogin
- D. You should assign the appropriate database-level permissions to ServiceGreatUser

Answer: D

Section: (none)

Explanation/Reference:

As the user ServiceGreatLogin is mapped to ServiceGreatUser in the database, all the correct rights and/or roles should be assigned to ServiceGreatUser

QUESTION 29

You are the administrator of a SQL Server 2008 instance.

There is a Windows group named Wiikigo\Service. According to the security policy, members of this group are allowed to set up new connections to the SQL Server instance. But this is can only be done during office time from 8:00-20:00. Other users may connect to the SQL Server instance any time.

You write the following Transact-SQL statements.

```
CREATE TABLE Security.RestrictedLogonHours
(
  Id int NOT NULL IDENTITY(1,1),
  GroupName sysname NOT NULL,
  RestrictedTimeStart time NOT NULL,
  RestrictedTimeStop time NOT NULL,
  CONSTRAINT RestrictedLogonHours_pk
  PRIMARY KEY CLUSTERED(Id)
);
```

```
INSERT INTO Security.RestrictedLogonHours (
  GroupName,
```

```
RestrictedTimeStart,  
RestrictedTimeStop  
)
```

```
VALUES (  
'WIIKIGO\Service',  
CAST('07:00' AS time),  
CAST('19:00' AS time)  
);
```

You need to implement the company security policy which is stored in the RestrictedLogonHours table.

What should you do?

- A. You should create a SQL Server Agent job. The job causes the SQL Server Windows service to pause during non-business hours.
- B. You should create a logon trigger. The trigger disallows the connection to the WIIKIGO\Service group during non-business hours
- C. You should create a SQL Server Agent job. The job periodically looks for and kills connections made by the WIIKIGO\Service group during non-business hours.
- D. You should create a policy. The policy uses a condition based on the Server Audit facet and disallows the connection to the WIIKIGO\Service group during non-business hours

Answer: B

Section: (none)

Explanation/Reference:

Logon triggers fire stored procedures in response to a LOGON event.

This event is raised when a user session is established with an instance of SQL Server. Logon triggers fire after the authentication phase of logging in finishes, but before the user session is actually established. Therefore, all messages originating inside the trigger that would typically reach the user, such as error messages and messages from the PRINT statement, are diverted to the SQL Server error log. Logon triggers do not fire if authentication fails.

You can use logon triggers to **audit and control server sessions**, such as by tracking login activity, restricting logins to SQL Server, or limiting the number of sessions for a specific login.

QUESTION 30

You are the administrator of a SQL Server 2008 instance. There is a database developer who is named UserJack.

UserJack views the definitions of all database objects in a database to read data from all user-defined tables, views, and table-valued functions. For UserJack, you have to assign the required permissions.

Besides this, you must make sure that other developers can also be given the same permissions, but this should be achieved by executing as little Transact-SQL statements as possible.

Which Transact-SQL statements should you execute?

- A. GRANT VIEW ANY DEFINITION TO UserJack;EXEC sp_addrolemember 'db_datareader', 'UserJack';
- B. CREATE ROLE Developers;GRANT CONTROL TO Developers;EXEC sp_addrolemember 'Developers', 'UserJack';
- C. CREATE ROLE Developers;GRANT VIEW DEFINITION TO Developers;GRANT SELECT TO Developers;EXEC sp_addrolemember 'Developers', 'UserJack';

D. CREATE ROLE Developers;EXEC sp_addrolemember 'sp_dbdatareader', 'Developers';EXEC sp_addrolemember 'sp_dbddladmin', 'Developers';EXEC sp_addrolemember 'Developers', 'UserJack';

Answer: C

Section: (none)

Explanation/Reference:

1. Create ROLE: Roles are database-level securables. After you create a role, configure the database-level permissions of the role by using GRANT, DENY, and REVOKE. To add members to a database role, use the **sp_addrolemember** stored procedure.
2. VIEW DEFINITION: The VIEW DEFINITION permission lets a user see the metadata of the securable on which the permission is granted. However, VIEW DEFINITION permission does not confer access to the securable itself. For example, a user that is granted only VIEW DEFINITION permission on a table can see metadata related to the table in the sys.objects catalog view. However, without additional permissions such as SELECT or CONTROL, the user cannot read data from the table.
3. GRANT SELECT: Grants permissions on a securable to a principal.

QUESTION 31

You are the administrator of a SQL Server 2008 instance with a database named DB1. You are checking and configuring the security of the instance.

According to the requirement of the security audit policy, only successful and failed logon attempts are recorded in log files and if records cannot be written to the log files, the SQL Server instance is shut down.

You must configure the SQL Server instance making it not violate the security audit policy.

Which Transact-SQL statements should you run?

- A. sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'default trace enabled', 1;
GO
RECONFIGURE
GO
- B. sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'common criteria compliance enabled', 1;
GO
RECONFIGURE
GO
- C. CREATE SERVER AUDIT Srv_Audit TO FILE (FILEPATH = '\\MAIN_SERVER\\Audit\\') WITH (ON_FAILURE = SHUTDOWN);
GO
CREATE SERVER AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit
ADD (SUCCESSFUL_LOGIN_GROUP),
ADD (FAILED_LOGIN_GROUP)
WITH (STATE=ON);
GO
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);
GO

```
D. CREATE SERVER AUDIT Srv_Audit TO FILE ( FILEPATH = '\\MAIN_SERVER\\Audit\\' ) WITH
(ON_FAILURE = SHUTDOWN);
GO
CREATE DATABASE AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit
ADD (SUCCESSFUL_LOGIN_GROUP),
ADD (FAILED_LOGIN_GROUP)
WITH (STATE=ON);
GO
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);
GO
```

Answer: C

Section: (none)

Explanation/Reference:

Auditing an instance of SQL Server or a SQL Server database involves tracking and logging events that occur on the system. You can use several methods of auditing for SQL Server, as described in Auditing (Database Engine). Beginning in SQL Server 2008 Enterprise, you can also set up automatic auditing by using SQL Server Audit.

There are several levels of auditing for SQL Server, depending on government or standards requirements for your installation. SQL Server Audit provides the tools and processes you must have to enable, store, and view audits on various server and database objects.

You can record server audit action groups per-instance, and either database audit action groups or database audit actions per database. The audit event will occur every time that the auditable action is encountered.

SQL Server Audit Components

An *audit* is the combination of several elements into a single package for a specific group of server actions or database actions. The components of SQL Server Audit combine to produce an output that is called an audit, just as a report definition combined with graphics and data elements produces a report.

SQL Server Audit uses *Extended Events* to help create an audit.

- **SQL Server Audit**

The *SQL Server Audit* object collects a single instance of server or database-level actions and groups of actions to monitor. The audit is at the SQL Server instance level. You can have multiple audits per SQL Server instance.

When you define an audit, you specify the location for the output of the results. This is the audit destination. The audit is created in a *disabled* state, and does not automatically audit any actions. After the audit is enabled, the audit destination receives data from the audit.

- **Server Audit Specification**

The *Server Audit Specification* object belongs to an audit. You can create one server audit specification per audit, because both are created at the SQL Server instance scope.

The server audit specification collects many server-level action groups raised by the Extended Events feature. You can include *audit action groups* in a server audit specification. Audit action groups are predefined groups of actions, which are the atomic events exposed by the Database Engine. These actions are sent to the audit, which records them in the target.

Here only the answer C create Server audit for logins.

QUESTION 32

You are the administrator of a SQL Server 2008 instance with a database named DB1.

DB1 has a table which is named Table01 and a stored procedure named Procedure01.

Procedure01 choose data from Table01 by using a sp_executesql Transact-SQL statement.

Your company security rules forbid users to access tables directly in any database.

Look at the exception below:

"Msg 229, Level 14, State 5, Line 1 The SELECT permission was denied on the object 'Table01', database 'DB1', schema 'dbo'."

The exception is raised when Procedure01 is executed by users. You have to make sure that a user

can successfully execute Procedure1 complying with the company rules.

Which action should you perform to achieve this goal?

- A. You should execute the GRANT SELECT ON dbo.Table01 TO User1 Transact-SQL statement.
- B. You should execute the GRANT EXECUTE ON dbo.Procedure1 TO User1 Transact-SQL statement.
- C. You should alter Procedure01 and add the WITH EXECUTE AS OWNER option to its header
- D. You should alter Procedure01 and add the EXECUTE AS USER = 'dbo' option immediately before the call to the sp_executesql stored procedure.

Answer: C

Section: (none)

Explanation/Reference:

EXECUTE AS OWNER specifies the statements inside the module executes in the context of the current owner of the module. If the module does not have a specified owner, the owner of the schema of the module is used.

Use EXECUTE AS OWNER in the following scenario:

You want to be able to change owner of the module without having to modify the module itself. That is, OWNER automatically maps to the current owner of the module at run time.

OWNER is the explicit owner of the module or, if there is not an explicit owner, the owner of the schema of the module at the time the module is executed. OWNER must be a singleton account and not a group or role. The ownership of the module cannot be changed to a group or role when the module specifies EXECUTE AS OWNER and has an explicit owner. The ownership of a schema cannot be changed to a role or group when it contains a module that specifies EXECUTE AS OWNER and the modules does not have an explicit owner.

Functions (except inline table-valued functions), **Stored Procedures**, and **DML Triggers**

```
{ EXEC | EXECUTE } AS { CALLER | SELF | OWNER | 'user_name' }
```

DDL Triggers with Database Scope

```
{ EXEC | EXECUTE } AS { CALLER | SELF | 'user_name' }
```

DDL Triggers with Server Scope and logon triggers

```
{ EXEC | EXECUTE } AS { CALLER | SELF | 'login_name' }
```

Queues

```
{ EXEC | EXECUTE } AS { SELF | OWNER | 'user_name' }
```

QUESTION 33

You are the administrator of a SQL Server 2008 instance with a database named DB1.

DB1 is available to a Windows group which is named WIIKIGO\Supervisors.

A Windows user named User1 is a member of the WIIKIGO\Supervisors group. WIIKIGO\Supervisors is a member of the db_owner role in the DB1 database.

You have to make sure that the SQL Server instance is (not?) available to User1.

In the DB1 database, which Transact-SQL statement(s) should you execute?

- A. DROP LOGIN "WIIKIGO\User1";
- B. EXEC dbo.sp_droprolemember 'db_owner', 'WIIKIGO\User1';
- C. EXEC dbo.sp_revokedbaccess 'WIIKIGO\User1';
EXEC dbo.sp_revokelogin 'WIIKIGO\User1';
- D. CREATE LOGIN "WIIKIGO\User1" FROM Windows;DENY CONNECT SQL TO "WIIKIGO\User1";

Answer: D

Section: (none)

Explanation/Reference:

If I understand well, The group WIIKIGO\Supervisors is dbo of DB1. WIIKIGO\User1 is part of the group and should only have deny on the database.. This user will inherit rights from the group. Or we don't want him to connect to the instance, so we have to create one login for this user and specify one DENY CONNECT to this user.

QUESTION 34

You are the administrator of a SQL Server 2008. There are queries that have an estimated execution cost less than 3.

You intend to configure the instance, make it use a single thread for these queries.

Which sp_configure configuration option should you set?

- A. You should set query governor cost limit
- B. You should set cost threshold for parallelism
- C. You should set priority boost
- D. You should set precompute rank

Answer: B

Section: (none)

Explanation/Reference:

Use the **cost threshold for parallelism** option to specify the threshold at which Microsoft SQL Server creates and runs parallel plans for queries. SQL Server creates and runs a parallel plan for a query only when the estimated cost to run a serial plan for the same query is higher than the value set in **cost threshold for parallelism**. The cost refers to an estimated elapsed time in seconds required to run the serial plan on a specific hardware configuration. Only set **cost threshold for parallelism** on symmetric multiprocessors.

Use the **query governor cost limit** option to specify an upper limit on the time period in which a query can run. Query cost refers to the estimated elapsed time, in seconds, required to complete a query on a specific hardware configuration.

QUESTION 35

You are the administrator of a SQL Server 2008.

According to the company requirement, you intend to perform an installation of an instance of SQL Server Reporting Services (SSRS) to the same machine.

Now your company CIO wants version histories of all deployed reports can be kept.

As a technical support, what should you do to ensure this?

- A. You should use the http.sys listener to install the SSRS instance.
- B. You should configure the SSRS database, make it use Native mode
- C. You should configure the SSRS database, make it use SharePoint integrated mode
- D. You should use the Internet Information Services default Web site to install the SSRS instance

Answer: C

Section: (none)

Explanation/Reference:

When created for SharePoint integrated mode, the report server database stores server properties, report execution snapshots, report history, subscription definitions, and schedules. It stores a secondary copy of

reports, report models, shared data sources, and resources to improve processing performance on the server. Primary storage for report documents is in the SharePoint content databases.

QUESTION 36

You are the administrator of a default SQL Server 2005 instance.

For a new application, you have to install a SQL Server 2008 instance on the server. Your company CIO assigns this task to you.

You have to make sure that the respective certified third-party applications have access to both database instances.

You have to achieve this goal without changing the existing application environments.

What should you do to achieve this goal by using as little database administrative effort as possible?

- A. You should install SQL Server 2008 as a named instance, and make the new application to use the new instance.
- B. You should install SQL Server 2008 as the default instance, and make the new application to use the default instance.
- C. You should upgrade the SQL Server 2005 application to use SQL Server 2008.
- D. You should upgrade the SQL Server 2005 instance to a SQL Server 2008 instance.

Answer: A

Section: (none)

Explanation/Reference:

SQL Server supports multiple instances of the Database Engine, Analysis Services, and Reporting Services on the same computer. You can also upgrade earlier versions of SQL Server, or install SQL Server on a computer where earlier SQL Server versions are already installed.

If a default instance already exists on the computer, SQL Server must be installed as a named instance.

The following table shows side-by-side support for SQL Server 2008:

| Existing instance of SQL Server 2008 | Side-by-side support |
|--------------------------------------|-------------------------------|
| SQL Server 2008 (32-bit) | SQL Server 2000 (32-bit) |
| | SQL Server 2000 (64-bit) x64 |
| | SQL Server 2005 (32-bit) |
| | SQL Server 2005 (64-bit) x64 |
| SQL Server 2008 (64-bit) IA64 | SQL Server 2005 (64-bit) IA64 |
| SQL Server 2008 (64-bit) x64 | SQL Server 2000 (32-bit) |
| | SQL Server 2000 (64-bit) x64 |
| | SQL Server 2005 (32-bit) |
| | SQL Server 2005 (64-bit) x64 |

In this case, there is already one default instance SQL Server 2005, thus, we have to install one named instance.

QUESTION 37

You are the administrator of SQL Server 2008 instance.

There is a single Database Mail profile. Reports are sent to all the company employees by using the Mail profile. During office hours, a large volume of reports are sent by the sp_send_dbmail stored procedure.

Now you notice that it takes a long time for the reports to be sent to the company manager. As the technical support, you have to speed up the delivery.

Which action should you perform to achieve this goal?

- A. Another SMTP account should be added to the existing Database Mail profile
- B. When you send the reports to the manager, you should use the @importance = high parameter.
- C. You should change the Account Retry Attempts option of the Database Mail system properties
- D. You should configure a new Database Mail profile. The new one will be used for sending the reports to the manager.

Answer: D

Section: (none)

Explanation/Reference:

A Database Mail profile is a collection of Database Mail accounts.

Profiles improve reliability in cases where an e-mail server becomes unreachable, by providing alternative Database Mail accounts.

At least one Database Mail account is required.

QUESTION 38

You are the administrator of a SQL Server 2008 instance with a database named DB1.

You put forward a database maintenance plan. The maintenance plan rebuilds indexes, checks database integrity, writes a report to a text file.

The company requires that when the maintenance plan executes abnormally, the operators can be notified by an e-mail message.

You've been assigned this task. So you have to make modifications on the SQL Server instance.

What should you do?

- A. For the SQL Server Agent, you should enable a fail-safe operator
- B. You should modify the database maintenance plan, making it send an e-mail to the appropriate operators
- C. You should modify the database maintenance plan, making it include a Notify Operator task that e-mails the appropriate operators.
- D. You should modify the SQL Server Agent job. The job executes the database maintenance plan to notify the appropriate operators.

Answer: D

Section: (none)

Explanation/Reference:

In this case, you should add send job status to the operator via the following procedure:

This topic describes how to set notification options so Microsoft SQL Server Agent can send notifications to operators about jobs.

To notify an operator of job status

1. In **Object Explorer**, connect to an instance of the SQL Server Database Engine, and then expand that instance.
2. Expand **SQL Server Agent**, expand **Jobs**, right-click the job you want to edit, and select **Properties**.
3. In the **Job Properties** dialog box, select the **Notifications** page.
4. If you want to notify an operator by e-mail, check **E-mail**, select an operator from the list, and then select one of the following:
 - **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.

- **When the job completes** to notify the operator regardless of completion status.
5. If you want to notify an operator by pager, check **Page**, select an operator from the list, and then select one of the following:
- **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.
 - **When the job completes** to notify the operator regardless of completion status.
6. If you want to notify an operator by net send, check **Net send**, select an operator from the list, and then select one of the following:
- **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.
 - **When the job completes** to notify the operator regardless of completion status.

QUESTION 39

You are the administrator of a SQL Server 2008 instance with a database named Finance.

The Finance database currently contains 100 GB of data. On an average, 1 GB of data is modified or inserted daily.

The recovery model of the Finance database is set to Simple.

Business requirements specify that data loss of more than two hours worth of transactions during business hours is unacceptable.

You need to select a backup strategy that uses the least amount of disk space by adhering to the business requirements.

What should you do?

- A. Perform a full database backup once daily.
- B. Perform a full database backup once daily.
Perform a differential backup every two hours during business hours.
- C. Perform a full database backup once daily.
Perform a transaction log backup every two hours during business hours.
- D. Perform a full database backup once every week.
Perform a differential backup once daily.
Perform a transaction log backup every two hours during business hours.

Answer: B

Section: (none)

Explanation/Reference:

QUESTION 40

You are the administrator of a SQL Server 2008 instance.

There is a Windows group named Wiikigo\Service. According to the security policy, members of this group are allowed to set up new connections to the SQL Server instance. But this is can only be done during office time from 8:00-20:00. Other users may connect to the SQL Server instance any time.

You write the following Transact-SQL statements.

```
CREATE TABLE Security.RestrictedLogonHours
(
```

```

Id int NOT NULL IDENTITY(1,1),
GroupName sysname NOT NULL,
RestrictedTimeStart time NOT NULL,
RestrictedTimeStop time NOT NULL,
CONSTRAINT RestrictedLogonHours_pk
PRIMARY KEY CLUSTERED(Id)
);

```

```

INSERT INTO Security.RestrictedLogonHours (
GroupName,
RestrictedTimeStart,
RestrictedTimeStop
)

```

```

VALUES (
'WIKIGO\Service',
CAST('07:00' AS time),
CAST('19:00' AS time)
);

```

You need to implement the company security policy which is stored in the RestrictedLogonHours table.

What should you do?

- A. You should create a SQL Server Agent job. The job causes the SQL Server Windows service to pause during non-business hours.
- B. You should create a logon trigger. The trigger disallows the connection to the WIKIGO\Service group during non-business hours
- C. You should create a SQL Server Agent job. The job periodically looks for and kills connections made by the WIKIGO\Service group during non-business hours.
- D. You should create a policy. The policy uses a condition based on the Server Audit facet and disallows the connection to the WIKIGO\Service group during non-business hours

Answer: B

Section: (none)

Explanation/Reference:

Logon triggers fire stored procedures in response to a LOGON event.

This event is raised when a user session is established with an instance of SQL Server. Logon triggers fire after the authentication phase of logging in finishes, but before the user session is actually established. Therefore, all messages originating inside the trigger that would typically reach the user, such as error messages and messages from the PRINT statement, are diverted to the SQL Server error log. Logon triggers do not fire if authentication fails.

You can use logon triggers to **audit and control server sessions**, such as by tracking login activity, restricting logins to SQL Server, or limiting the number of sessions for a specific login.

QUESTION 41

You are the administrator of a SQL Server 2008 instance.

You configure the SQL Server instance to use the -T1222 and -T1204 trace flags during startup.

You have to make sure that your failure recovery plan performs backup of the use of the trace flags.

Which action should you perform to achieve this goal?

- A. You should backup the master database
- B. You should backup the default.trc file

- C. You should backup the SQL Server registry hive.
- D. You should backup the resource database

Answer: C

Section: (none)

Explanation/Reference:

SQL Server Configuration Manager writes startup parameters to the registry. They take effect upon the next startup of the Database Engine.

You can override the default startup options temporarily and start an instance of SQL Server by using the following additional startup options.

-T trace#

Indicates that an instance of SQL Server should be started with a specified trace flag (**trace#**) in effect. Trace flags are used to start the server with nonstandard behavior.

Exam B

QUESTION 1

You are the administrator of a SQL Server 2008 instance.

There is a database named DB1 in the instance. The backup strategy for DB1 has the following requirements:
every day at 9:00 full database backup to a file named cash.bak is performed; at 9:15 a transaction log backup to a file named cash_HHMM.trn is performed every 15 minutes.

DB1 is being used in single-user mode.

Today a user reports that a query deleted some data by accident, the query was executed at 9: 25. Since the deleted data is quite important, the data has to be restored to its original state. You must achieve this goal.

Which action should you perform to achieve this goal?

- A. RESTORE DATABASE Cash
FROM DISK = 't:\backups\cash.bak'
WITH NORECOVERY;

RESTORE LOG Cash
FROM 't:\backups\cash_0930.trn'
WITH RECOVERY,
STOPAT = 'Mar 17, 2008 9:25AM';
- B. RESTORE DATABASE Cash
FROM DISK = 't:\backups\cash.bak';

RESTORE LOG Cash
FROM 't:\backups\cash_0915.trn'
WITH NORECOVERY;

RESTORE LOG Cash
FROM 't:\backups\cash_0930.trn'
WITH RECOVERY,
STOPAT = 'Mar 17, 2008 9:25AM';
- C. RESTORE DATABASE Cash
FROM DISK = 't:\backups\cash.bak';

RESTORE LOG Cash
FROM 't:\backups\cash_0915.trn'
WITH NORECOVERY;

RESTORE LOG Cash
FROM 't:\backups\cash_0930.trn'
WITH RECOVERY;
- D. RESTORE DATABASE Cash
FROM DISK = 't:\backups\cash.bak'
WITH NORECOVERY;

RESTORE LOG Cash
FROM 't:\backups\cash_0915.trn'
WITH NORECOVERY;

RESTORE LOG Cash
FROM 't:\backups\cash_0930.trn'
WITH RECOVERY,
STOPAT = 'Mar 17, 2008 9:25AM';

Answer: D

Section: (none)

Explanation/Reference:

To restore this database to 9:25 AM, you have to :

1. Restore the full backup with the NORECOVERY option.
2. Restore the log backup of 9:15 AM with the NORECOVERY option.
3. Restore the log backup of 9:30 AM with the RECOVERY and STOPAT = 'Mar 17, 2008 9:25AM' option.

QUESTION 2

You are the administrator of a SQL Server 2008 instance with a database named DB1 in the instance. At present about 90 GB of data is stored in DB1.

You made some rough calculations that every day about 1 GB of data is modified or inserted. You set the recovery model of DB1 to Simple.

According to the company requirements, during business hours, data loss of more than 120 minutes worth of transactions is unacceptable.

You have to choose a backup strategy which must comply with the following two requirements:

- Using as little disk space as possible
- Complying with the company requirements.

Which action should you perform to achieve this goal?

- A. A full database backup should be performed once daily. During business hour, a transaction log backup should be performed every two hours.
- B. A full database backup should be performed once daily
- C. A full database backup should be performed once daily. During business hours, a differential backup should be performed every two hours
- D. Perform a full database backup should be performed once every week. A differential backup should be performed once daily. During business hours a transaction log backup should be performed every two hours.

Answer: C

Section: (none)

Explanation/Reference:

From the question, we could have the following information:

4. As the database recovery model is set to SIMPLE, you cannot create log backups.
5. Data loss is 120 min, thus two hours
6. Full backup every two hours will lead us to missuse of disk space.
7. Differential database backup will keep track of all the changes in the database since the latest full backup. So the latest differential backup will have a maximal size of 1GB.

Thus, the backup strategy will be: one full backup daily and one differential backup every two hours.

QUESTION 3

You are the administrator of a SQL Server 2008 instance with a database named DB1.

The latest differential backup is performed at 15:30, the full back up was performed at 13:30, and database snapshots were created at 16:30 and at 17:30.

The backups and the database snapshots are stored on a different disk from the database files. At 17:05, the hard disk containing the database files fails at 17:02 hours.

You must restore DB1 while reduce data loss to the least.

Which action should you perform to achieve this goal?

- A. You should restore the full backup
- B. You should restore the database snapshot from 16:30 hours.
- C. You should restore the database snapshot from 17:30 hours
- D. You should restore both the full backup and the differential backup.

Answer: D

Section: (none)

Explanation/Reference:

You can't revert from the database snapshot because a snapshot is a view of the db and stores only the pages that were changed since the snapshot was taken.

Thus, the only way to get back the database is to restore the database full backup of 13:30 and the differential backup of 15:30.

There will be a gap of 1 hour 32 minutes.

QUESTION 4

You are the administrator of a SQL Server 2008 instance.

There is a database named DB1 in the instance. There are data file and the transaction log file on the E: drive.

You find that there is only 6% spare space. Both files have to be moved to the V: drive.

Which procedure should you use?

- A. You should run the following Transact-SQL statement:

```
ALTER DATABASE DB1 SET RESTRICTED_USER WITH ROLLBACK_IMMEDIATE;
```

Move the data file and transaction log file to the new location.

Run the following Transact-SQL statements.

```
ALTER DATABASE DB1 MODIFY FILE(NAME = DB1_Data, FILENAME = 'v:\SQLServer\DB1_Data.mdf');  
ALTER DATABASE DB1 SET MULTI_USER;
```

- B. You should terminate the SQL Server Service.

Then move the data file and transaction log file to the new location.

Start the SQL Server service.

Run the following Transact-SQL statement.

```
EXEC sp_attach_DB @DBname = N'DB1', @filename1 = N'v:\SQLServer\DB1_Data.mdf', @filename2 = N'v:\SQLServer\DB1_Log.ldf';
```

C. You should run the following Transact-SQL statement:

```
ALTER DATABASE DB1 SET OFFLINE WITH ROLLBACK_IMMEDIATE;
```

Move the data file and transaction log file to the new location.

Run the following Transact-SQL statements.

```
ALTER DATABASE DB1 MODIFY FILE(NAME = DB1_Data, FILENAME = 'v:\SQLServer\DB1_Data.mdf');
```

```
ALTER DATABASE DB1 MODIFY FILE(NAME = DB1_Log, FILENAME = 'v:\SQLServer\DB1_Log.ldf');
```

```
ALTER DATABASE DB1 SET ONLINE;
```

D. You should terminate the SQL Server service.

Then move the data file to the new location.

Start the SQL Server service.

Run the following Transact-SQL statement.

```
EXEC sp_attach_single_file_DB @DBname = N'DB1',@physname = N'v:\SQLServer\DB1_Data.mdf';
```

Answer: C

Section: (none)

Explanation/Reference:

The two answers with the attach database are wrong because there is NO detach action before the attach statement.

Question A is wrong because it moves only the data file (mdf). Or we should move the mdf and ldf files.

So, answer C is correct, because the two files are correctly moved.

QUESTION 5

You are the administrator of a SQL Server 2008 instance with a database named DB1.

A backup of DB1 is performed every day.

You have to minimize the size of the full database backup files of DB1.

Which Transact-SQL statement should you use?

A. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak';

B. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH COMPRESSION;

C. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH DIFFERENTIAL;

D. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH COMPRESSION, DIFFERENTIAL;

Answer: B

Section: (none)

Explanation/Reference:

We will use the compression option to minimize the FULL backup size. So, answer D is giving us one differential backup

COMPRESSION:

Backup compression was introduced in SQL Server 2008 Enterprise. This topic discusses the basics of backup compression, including the performance trade-off of compressing backups.

Note:

Though creating compressed backups is supported only in SQL Server 2008 Enterprise and later, every SQL Server 2008 or later edition can restore a compressed backup.

Restrictions

The following restrictions apply to compressed backups:

- Compressed and uncompressed backups cannot co-exist in a media set.
- Previous versions of SQL Server cannot read compressed backups.
- NTbackups cannot share a tape with compressed SQL Server backups.

QUESTION 6

You are the administrator of a SQL Server 2008 instance with a database named DB1.

When you are absent, a user will use a login named Mary to log in and maintain the database snapshots. The user has to delete the database snapshots for DB1, so you have to give the appropriate permissions to the user.

Which database permission should you give the user?

- A. DELETE
- B. CONTROL
- C. DROP DATABASE
- D. ALTER ANY DATASPACE

Answer: C

Section: (none)

Explanation/Reference:

Dropping a Database Snapshot

Dropping a database snapshot deletes the database snapshot from an instance of SQL Server and deletes the physical NTFS File System sparse files used by the snapshot. For information about using sparse files by database snapshots, see *How Database Snapshots Work*.

Dropping a database snapshot clears the plan cache for the instance of SQL Server. Clearing the plan cache causes a recompilation of all subsequent execution plans and can cause a sudden, temporary decrease in query performance. For each cleared cachestore in the plan cache, the SQL Server error log contains the following informational message: "SQL Server has encountered %d occurrence(s) of cachestore flush for the '%s' cachestore (part of plan cache) due to some database maintenance or reconfigure operations". This message is logged every five minutes as long as the cache is flushed within that time interval.

Permissions

To execute DROP DATABASE, at a minimum, a user must have CONTROL permission on the database.

So, for me, the answer is B, not C

QUESTION 7

You are the administrator of a SQL Server 2008 instance with a database named DB1 in the instance. The DB1 database includes spatial data types. On DB1 database,

you have to perform a database consistency check to include the spatial indexes.

Besides this, you must make sure that you can reduce the effect on the database concurrency to the least.

Which Transact-SQL statement should you run?

- A. DBCC CHECKCATALOG (DB1);
- B. DBCC CHECKALLOC (DB1) WITH TABLOCK;

- C. DBCC CHECKDB (DB1) WITH TABLOCK, PHYSICAL_ONLY;
- D. DBCC CHECKDB (DB1) WITH EXTENDED_LOGICAL_CHECKS;

Answer: D

Section: (none)

Explanation/Reference:

DBCC CHECKDB Checks the logical and physical integrity of all the objects in the specified database.

EXTENDED_LOGICAL_CHECKS

If the compatibility level is 100 (SQL Server 2008) or higher, performs logical consistency checks on an indexed view, XML indexes, and **spatial indexes**, where present.

QUESTION 8

You are the administrator of a SQL Server 2008 instance.

A SQL Server Agent job is failing. You find that the job history information is incomplete and seems to be truncated after you review it.

All information produced by a job must be available for viewing.

Which action should you perform to achieve this goal?

- A. You should enable notifications to the Windows application event log when the job completes.
- B. You should enable write OEM file
- C. You should enable all job steps, making them send the output to a file
- D. You should include execution trace messages in the SQL Agent Error log

Answer: C

Section: (none)

Explanation/Reference:

In all the jobsteps, go to the option panel and select Output file to get all info from the step. Note that you can append or override the file. All job steps should be adapted with the option.

Output file Sets the file to use for output from the job step.

QUESTION 9

You are the administrator of a SQL Server 2008 instance containing a database named DB1.

An application which is continuously connected uses DB1.

The application extensively uses the INSERT command and triggers the population of multiple tables.

Now you notice that the application has a poor performance. You doubt that this problem has something to do with blocking.

You have to monitor the state of the instance at regular intervals while not affecting the application performance further.

Which tool should you use?

- A. You should use Dynamic Management Views
- B. You should use SQL Server Resource Governor
- C. You should use SQL Server Profiler
- D. You should use Windows System Monitor

Answer: A

Section: (none)

Explanation/Reference:

Dynamic management views and functions return server state information that can be used to monitor the health of a server instance, diagnose problems, and tune performance.

Important: Dynamic management views and functions return internal, implementation-specific state data. Their schemas and the data they return may change in future releases of SQL Server. Therefore, dynamic management views and functions in future releases may not be compatible with the dynamic management views and functions in SQL Server 2008.

There are two types of dynamic management views and functions:

- Server-scoped dynamic management views and functions. These require VIEW SERVER STATE permission on the server.
- Database-scoped dynamic management views and functions. These require VIEW DATABASE STATE permission on the database.

QUESTION 10

You are the administrator of a SQL Server 2008 instance.

You upgraded this instance to SQL Server 2008. You configure the Agent service to use the LocalSystem account.

There is a file named Orderdata on a remote network share.

A job accesses this Orderdata file by using a CMDExec step. The job step fails to complete execution after the upgrade.

You have to make sure that the job can complete execution, so you have to configure the job step.

Which action should you perform?

- A. You should configure a certificate
- B. You should configure the SQL Server Agent service to use the NetworkService account.
- C. You should configure the job step to use a proxy account
- D. You should configure the SQL Server Agent service to use a local Windows account

Answer: C

Section: (none)

Explanation/Reference:

Because job steps run in the context of a specific Microsoft Windows user, that user must have the permissions and configuration necessary for the job step to execute.

For example, if you create a job that requires a drive letter or a Universal Naming Convention (UNC) path, the job steps may run under your Windows user account while testing the tasks.

However, the Windows user for the job step must also have the necessary permissions, drive letter configurations, or access to the required drive.

Otherwise, the job step fails. To prevent this problem, ensure that the proxy for each job step has the necessary permissions for the task that the job step performs.

QUESTION 11

You are the administrator of a SQL Server 2008 instance.

A user reports that when he runs a query, it takes a quite long time and it is still unfinished.

As the IT support, you have to verify whether the query is blocked.

Which tool should you use?

- A. You should use the Database Engine Tuning Advisor tool
- B. You should use the Windows System Monitor tool
- C. You should use the Job Activity Monitor tool in Microsoft SQL Server Management Studio
- D. You should use the Activity Monitor tool in Microsoft SQL Server Management Studio

Answer: D

Section: (none)

Explanation/Reference:

The Activity Monitor in SQL Server Management Studio graphically displays information about:

- Processes running on an instance of SQL Server.
- Blocked processes.
- Locks.
- User activity.

This is useful for ad hoc views of current activity.

QUESTION 12

You are the administrator of a SQL Server 2008 instance with a database named DB1.

You have set the recovery model of DB1 to Full.

At 2:00 There is a full database backup of all the user databases every day. Every quarter the transaction log backup is performed.

Every 4 hours a differential backup is occurred. You are going to perform a full backup of DB1 at 11:00.

When you perform this back up, you must make sure that the overall backup will not be affected. What's more, you have to restore procedures for DB1.

You must make sure that the backup files are restored in proper sequence.

Which Transact-SQL statement should you use?

- A. `BACKUP LOG DB1 TO DISK = 't:\backups\db1.trn';`
- B. `BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH DIFFERENTIAL;`
- C. `BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH NOUNLOAD;`
- D. `BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH COPY_ONLY;`

Answer: D

Section: (none)

Explanation/Reference:

COPY_ONLY

Specifies that the backup is a *copy-only backup*, which does not affect the normal sequence of backups. A copy-only backup is created independently of your regularly scheduled, conventional backups. A copy-only backup does not affect your overall backup and restore procedures for the database.

Copy-only backups were introduced in SQL Server 2005 for use in situations in which a backup is taken for a special purpose, such as backing up the log before an online file restore. Typically, a copy-only log backup is used once and then deleted.

When used with `BACKUP DATABASE`, the `COPY_ONLY` option creates a full backup that cannot serve as a differential base. The differential bitmap is not updated, and differential backups behave as if the copy-only backup does not exist. Subsequent differential backups use the most recent conventional full backup as their base.

Important:

If DIFFERENTIAL and COPY_ONLY are used together, COPY_ONLY is ignored, and a differential backup is created.

When used with BACKUP LOG, the COPY_ONLY option creates a *copy-only log backup*, which does not truncate the transaction log. The copy-only log backup has no effect on the log chain, and other log backups behave as if the copy-only backup does not exist.

QUESTION 13

You are the administrator of a SQL Server 2008 instance.

You get an order from your company CIO to identify whether a database integrity check (DBCC CHECKDB) was run for a particular database.

Which log file should you examine?

- A. log.trc
- B. default.trc
- C. ERRORLOG
- D. SQLAGENT

Answer: C

Section: (none)

Explanation/Reference:

View the SQL Server error log to ensure that processes have completed successfully (for example, backup and restore operations, batch commands, or other scripts and processes). This can be helpful to detect any current or potential problem areas, including automatic recovery messages (particularly if an instance of SQL Server has been stopped and restarted), kernel messages, or other server-level error messages.

QUESTION 14

You are the administrator of a SQL Server 2008 instance.

Users report that they are unable to connect to the named instances. You check and verify that they can only connect to the default instance.

You also ensure that all SQL Server instances run normally.

You have to start the service which is required to connect to the named instances.

Which service should you start?

- A. Server
- B. SQL Server Agent
- C. SQL Server Browser
- D. SQL Active Directory Helper

Answer: C

Section: (none)

Explanation/Reference:

The SQL Server Browser program runs as a Windows service. SQL Server Browser listens for incoming requests for Microsoft SQL Server resources and provides information about SQL Server instances installed on the computer.

SQL Server Browser contributes to the following actions:

- Browsing a list of available servers
- Connecting to the correct server instance

- Connecting to dedicated administrator connection (DAC) endpoints

QUESTION 15

You are the administrator of a SQL Server 2008 instance.

There are user-defined stored procedures. You have to ensure two things. First the names of all user-defined stored procedures must contain the prefix `usp_` on all instances; secondly stored procedures which do not contain this prefix cannot be created by you.

What should you do to ensure these two?

- A. You should create a policy that targets the name of the stored procedure that is evaluated on change.
- B. You should create a policy that targets the name of the stored procedure that is evaluated on demand.
- C. You should create a condition that targets the name of stored procedure that is evaluated on demand.
- D. You should create a condition that targets the name of the stored procedure that is evaluated on change.

Answer: A

Section: (none)

Explanation/Reference:

Policy-Based Management is a system for managing one or more instances of SQL Server 2008. When SQL Server policy administrators use Policy-Based Management, they use SQL Server Management Studio to create policies to manage entities on the server, such as the instance of SQL Server, databases, or other SQL Server objects.

Policy-Based Management has three components:

Policy management

Policy administrators create policies.

Explicit administration

Administrators select one or more managed targets and explicitly check that the targets comply with a specific policy, or explicitly make the targets comply with a policy.

Evaluation modes

There are four evaluation modes, three of which can be automated:

On demand. This mode evaluates the policy when directly specified by the user.

On change: prevent. This automated mode uses DDL triggers to prevent policy violations.

Important:

If the nested triggers server configuration option is disabled, **On change: prevent** will not work correctly. Policy-Based Management relies on DDL triggers to detect and roll back DDL operations that do not comply with policies that use this evaluation mode. Removing the Policy-Based Management DDL triggers or disabling nested triggers, will cause this evaluation mode to fail or perform unexpectedly.

On change: log only. This automated mode uses event notification to evaluate a policy when a relevant change is made.

On schedule. This automated mode uses a SQL Server Agent job to periodically evaluate a policy.

When automated policies are not enabled, Policy-Based Management will not affect system performance.

QUESTION 16

You are the administrator of a SQL Server 2008 instance.

A new SQL Agent job has been created by you. The job includes a Windows PowerShell job step which transfer data between servers by using the SQLCmd utility. If the job fails, you have to make sure that an operator named ReactGroup is informed by receiving an e-mail.

What action should you perform to achieve this goal?

- A. First you should enable Notifications. Direct the Notification to the ReactGroup operator on job failure after you create the ReactGroup operator.
- B. First you should enable Notifications. Direct the Notification to the ReactGroup operator on failure of the Powershell job step after you create the ReactGroup operator.
- C. First you should assign the ReactGroup operator as the failsafe operator. Then enable the job after you create the ReactGroup operator.
- D. First you should configure the job step proxy account to use the ReactGroup operator account after you create the ReactGroup operator. At last choose the proxy account for the e-mail profile.

Answer: A

Section: (none)

Explanation/Reference:

In this case, you should add send job status to the operator via the following procedure:

This topic describes how to set notification options so Microsoft SQL Server Agent can send notifications to operators about jobs.

To notify an operator of job status

1. In **Object Explorer**, connect to an instance of the SQL Server Database Engine, and then expand that instance.
2. Expand **SQL Server Agent**, expand **Jobs**, right-click the job you want to edit, and select **Properties**.
3. In the **Job Properties** dialog box, select the **Notifications** page.
4. If you want to notify an operator by e-mail, check **E-mail**, select an operator from the list, and then select one of the following:
 - **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.
 - **When the job completes** to notify the operator regardless of completion status.
5. If you want to notify an operator by pager, check **Page**, select an operator from the list, and then select one of the following:
 - **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.
 - **When the job completes** to notify the operator regardless of completion status.
6. If you want to notify an operator by net send, check **Net send**, select an operator from the list, and then select one of the following:
 - **When the job succeeds** to notify the operator when the job completes successfully.
 - **When the job fails** to notify the operator when the job completes unsuccessfully.
 - **When the job completes** to notify the operator regardless of completion status.

QUESTION 17

You are the administrator of a SQL Server 2008 instance.

There is a stored procedure. The stored procedure implements a database maintenance process.

A SQL Server Agent job should be created to that runs the stored procedure. Besides this, You have to make sure that after it is completed successfully, the job is removed.

What should you do?

- A. You should create a job which is assigned to the Database Maintenance category
- B. You should create an Alert which will run another to delete the maintenance job.
- C. You should create a job. You schedule the job to run only once.
- D. You should create a job. The job uses the Automatically delete job option

Answer: D

Section: (none)

Explanation/Reference:

This topic describes how to configure Microsoft SQL Server Agent to automatically delete jobs when they succeed, fail, or complete.

To automatically delete a job

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

Expand **SQL Server Agent**, expand **Jobs**, right-click the job you want to edit, and then click **Properties**. Select the **Notifications** page.

Check **Automatically delete job**, and choose one of the following:

- Click **When the job succeeds** to delete the job status when it has completed successfully.
- Click **When the job fails** to delete the job when it has completed unsuccessfully.
- Click **When the job completes** to delete the job regardless of completion status.

QUESTION 18

You are the administrator of a SQL Server 2008 instance which contains multiple Agent jobs.

The jobs run each job on each day of the week by using seven shared schedules.

You have to make sure that a job named Job4 doesn't run Wednesday.

Which action should you perform to achieve this goal?

- A. You should remove the schedule for Wednesday from Job4.
- B. You should add a new Job4 schedule for Wednesday and disable it.
- C. You should delete the schedule for Wednesday.
- D. You should disable the schedule for Wednesday.

Answer: A

Section: (none)

Explanation/Reference:

SQL Server Agent Job runs at determined time via the Schedules that are in the "Schedules" tab. Here we have one schedule for each days of the week (7 schedules in total). So, to prevent the job to run on Wednesday, we have to remove this schedule.

QUESTION 19

You are the administrator of a SQL Server 2008 instance.

You have to perform the backup of the default trace according to the requirement of your failure recovery plan.

The default trace is contained in the subdirectory. You have to backup the subdirectory.

Which SQL Server database engine subdirectory should be backed up?

- A. DATA
- B. INSTALL
- C. LOG
- D. BINN

Answer: C

Section: (none)

Explanation/Reference:

Use the **default trace enabled** option to enable or disable the default trace log files. The default trace functionality provides a rich, persistent log of activity and changes primarily related to the configuration options.

Purpose

Default trace provides troubleshooting assistance to database administrators by ensuring that they have the log data necessary to diagnose problems the first time they occur.

Viewing

The default trace logs can be opened and examined by SQL Server Profiler or queried with Transact-SQL by using the `fn_trace_gettable` system function. SQL Server Profiler can open the default trace log files just as it does normal trace output files. **The default trace log is stored by default in the \MSSQL\LOG directory** using a rollover trace file. The base file name for the default trace log file is `log.trc`. In a typical installation of SQL Server, the default trace is enabled and thus becomes TraceID 1. If enabled after installation and after creating other traces, the TraceID can become a larger number.

QUESTION 20

You are the administrator of a SQL Server 2008 instance.

There is a management data warehouse that uses the data collector to collect performance data. You intend to maintain the management data.

You want to implement a data collection process. The process can gather and upload data in the management data warehouse on different schedules.

Which process should you implement?

- A. You should create a cached data collection
- B. You should create an on-demand non-cached data collection
- C. You should create a scheduled non-cached data collection
- D. You should create two different SQL Agent jobs that are scheduled simultaneously

Answer: A

Section: (none)

Explanation/Reference:

Data collection and upload

Specifies how data is collected and uploaded to the management data warehouse. Pick one of the following options.

Cached. Collection and data upload not on the same schedule.

QUESTION 21

You are the administrator of a remote SQL Server 2008 instance.

You notice that the application has a poor performance. On the remote SQL Server instance, you capture a workload of the remote instance to a trace table by using SQL Profiler.

You have to use the Database Engine Tuning Advisor to analyze the workload of the remote SQL Server instance on a local SQL Server instance.

Which action should you perform to achieve this goal?

- A. You should recapture the workload by using the data collector.
- B. You should enable the XP_MSVER stored procedure on the local server.
- C. You should enable the XP_MSVER stored procedure on the remote server.
- D. You should recapture the workload to a trace file by using SQL Profiler.

Answer: D

Section: (none)

Explanation/Reference:

In order to use the Database Engine Tuning Advisor, you need one trace file, here in the question, there is a trace table available, which is not good. We have then to restart one trace to a file.

QUESTION 22

You are the administrator of a SQL Server 2008 instance.

According to the company requirement, you have to move the application from Microsoft SQL Server 2000 to Microsoft SQL Server 2008. You have to monitor the SQL Server instance to record the use of features.

These features will be discontinued. What should you do?

- A. The SQL Server 2008 Upgrade Advisor should be used.
- B. The SQL Server Profiler which captures the SQL:BatchCompleted and Exception event classes should be used.
- C. A SQL server-side trace that captures the Deprecation Announcement and Deprecation Final Support event classes should be used.
- D. A SQL server-side trace that captures the SQL:BatchCompleted and Exception event classes should be used.

Answer: C

Section: (none)

Explanation/Reference:

The **Deprecation Final Support** event class occurs when you use a feature that will be removed from the next major release of SQL Server. For greatest longevity of your applications, do not use features that cause the **Deprecation Final Support** event class or the **Deprecation Announcement** event class. Modify applications that use final deprecation features as soon as possible.

QUESTION 23

You are the administrator of a SQL Server 2008 instance with a database named DB1.

DB1 has two filegroups: one is a filegroup named History that contains historical data stored in the G: volume; the other is the PRIMARY filegroup that contains the On-Line Transaction Processing (OLTP) data stored in the F: volume.

The backup strategy of DB1 has three requirements:

- first, the History filegroup should be backed up at the end of each working day;
- second, the PRIMARY filegroup should be backed up five times a day;
- third, the transaction log should be backed up every quarter.

You get a report at 13:00 saying that the volume which contains the History filegroup fails.

As the technical support, you have to restore the database, and you must reduce the data loss to the least as soon as possible.

What should you do?

- A. You should restore the most recent backup of the History filegroup.
- B. You should restore the most recent backup of the History filegroup. Restore all the transaction log backups after the most recent backup of the History filegroup
- C. You should backup the transaction log. Then restore the most recent backup of the PRIMARY filegroup and restore the most recent backup of the History filegroup. After the most recent backup of the History filegroup, restore all the transaction log backups
- D. You should backup the transaction log. Then restore the most recent backup of the History filegroup and restore all the transaction log backups after the most recent backup of the History filegroup.

Answer: D

Section: (none)

Explanation/Reference:

As you have made one filegroup backup of the History filegroup, you can restore it and apply all the transaction log to this restored filegroup.

Or, you need to reduce the data lost to the least. In this case, you have to first backup the transaction log and then make the restore.

QUESTION 24

You are the administrator of a SQL Server 2008 instance.

Your company CIO assigns you a task. You have to check the performance of the SQL Server 2008 instance.

You have to find out which common language runtime (CLR) queries takes the longest-running time.

Which dynamic management view should you choose to use?

- A. sys.dm_os_wait_stats
- B. sys.dm_exec_requests
- C. sys.dm_exec_sessions
- D. sys.dm_exec_query_stats

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 25

You are the administrator of a SQL Server 2008 instance. The instance has databases for a finance application and a manufacturing application.

You want to put some limitation on the maximum CPU query time allowed by the applications, so you configure the Resource Governor to achieve this. But you notice that certain reports do not execute successfully any longer on the manufacturing application.

You have to allow the manufacturing application to consume more CPU time, so you have to change the Resource Governor configuration.

Which Resource Governor component should you configure?

- A. The workload group which is used by default
- B. The workload group which is used by the finance application
- C. The classifier function which identifies the finance application
- D. The workload group which is used by the manufacturing application

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 26

You are the administrator of a SQL Server 2008 instance.

For some reason, the company wants to view the number of users who access the SQL Server instance.

The company CIO assigns this task to you. You have to use Windows System Monitor to find out the concrete number.

Which performance object should you capture?

- A. SQLServer:Buffer Manager
- B. SQLServer:Access Methods
- C. SQLServer:General Statistics
- D. SQLServer:Exec Statistics

Answer: C

Section: (none)

Explanation/Reference:

QUESTION 27

You are the administrator of a SQL Server 2008 instance with a database named Dworks.

The Dworks database has a table named Bills which contains several indexes and a great amount of rows. An enterprise Web environment is supported by the database. On the Bills table 28% of the indexes have been fragmented.

You have to defragment the indexes, making sure that you reduce the effect on database availability to the least.

In the ALTER INDEX statement, which option should be included?

- A. Sort in tempdb
- B. Online
- C. Fill factor
- D. Pad index

Answer: B

Section: (none)

Explanation/Reference:

ONLINE = { ON | OFF }

Specifies whether underlying tables and associated indexes are available for queries and data modification during the index operation. The default is OFF.

For an XML index or spatial index, only ONLINE = OFF is supported, and if ONLINE is set to ON an error is raised.

Note:

Online index operations are available only in SQL Server Enterprise.

ON

Long-term table locks are not held for the duration of the index operation. During the main phase of the index operation, only an Intent Share (IS) lock is held on the source table. This allows queries or updates to the underlying table and indexes to continue. At the start of the operation, a Shared (S) lock is very briefly held on the source object. At the end of the operation, an S lock is very briefly held on the source if a nonclustered index is being created, or an SCH-M (Schema Modification) lock is acquired when a clustered index is created or dropped online, or when a clustered or nonclustered index is being rebuilt. ONLINE cannot be set to ON when an index is being created on a local temporary table.

OFF

Table locks are applied for the duration of the index operation. An offline index operation that creates, rebuilds, or drops a clustered, spatial, or XML index, or rebuilds or drops a nonclustered index, acquires a Schema modification (Sch-M) lock on the table. This prevents all user access to the underlying table for the duration of the operation. An offline index operation that creates a nonclustered index acquires a Shared (S) lock on the table. This prevents updates to the underlying table but allows read operations, such as SELECT statements.

Indexes, including indexes on global temp tables, can be rebuilt online with the following exceptions:

- Disabled indexes
- XML indexes
- Indexes on local temp tables
- Partitioned indexes
- Clustered indexes if the underlying table contains LOB data types
- Nonclustered indexes that are defined with LOB data type columns

Nonclustered indexes can be rebuilt online if the table contains LOB data types but none of these columns are used in the index definition as either key or nonkey columns.

QUESTION 28

You are the administrator of a SQL Server 2008 instance with a database named Dworks.

The table below shows the two tables of the Dworks database:

| Table Name | Function |
|-------------|--|
| Bills | Store bill information of the current year |
| BillHistory | Store bill information of the last years |

There are two partitions in the BillHistory table. Partition1 is empty while partition2 contains all data.

You intend to move data from partition2 to the appropriate partition of the BillHistory table. Partions2 contains data for the oldest month of the Bills table.

You are going to develop a process to achieve this. You have to make sure that at the end of every month the process can be repeated.

Which actions should you take?

- A. 1. Alter the partition function of the BillHistory table by using the split option.
2. Switch the appropriate partition of the Bills table to the appropriate partition of the BillHistory table.
3. Alter the BillHistory table by using the split option.
- B. 1. Alter the partition function of the Bills table by using the split option.
2. Alter the Billstable by using the merge option.
- C. 1. Alter the partition function of the BillHistory table by using the split option.
2. Switch the appropriate partition of the Bills table to the appropriate partition of the BillHistory table.
3. Alter the BillHistory table by using the merge option.
4. Alter the Bills table by using the merge option.
- D. 1. Alter the partition function of the Bills table by using the split option.
2. Alter the BillHistory table by using the split option.
3. Alter the partition function of the BillHistory table by using the merge option.
4. Alter the Bill stable by using the merge option.

Answer: C

Section: (none)

Explanation/Reference:

- 1. split the boundaries of the partition function of the target table
- 2. switch the appropriate partition of source table to the target table
- 3. merge the boundaries of the partition function of the target table
- 4. merge the boundaries of the partition function of the source table

Theory

Alters a partition function by splitting or merging its boundary values. By executing ALTER PARTITION FUNCTION, one partition of any table or index that uses the partition function can be split into two partitions, or two partitions can be merged into one less partition.

```
ALTER PARTITION FUNCTION partition_function_name ()
{
    SPLIT RANGE ( boundary_value )
    | MERGE RANGE ( boundary_value )
} [ ; ]
```

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.

Important:

A filegroup must exist online and be marked by the partition scheme that uses the partition function as NEXT USED to hold the new partition. Filegroups are allocated to partitions in a CREATE PARTITION SCHEME statement. If a CREATE PARTITION SCHEME statement allocates more filegroups than necessary (fewer partitions are created in the CREATE PARTITION FUNCTION statement than filegroups

to hold them), then there are unassigned filegroups, and one of them is marked NEXT USED by the partition scheme. This filegroup will hold the new partition. If there are no filegroups marked NEXT USED by the partition scheme, you must use ALTER PARTITION SCHEME to either add a filegroup, or designate an existing one, to hold the new partition. A filegroup that already holds partitions can be designated to hold additional partitions. Because a partition function can participate in more than one partition scheme, all the partition schemes that use the partition function to which you are adding partitions must have a NEXT USED filegroup. Otherwise, ALTER PARTITION FUNCTION fails with an error that displays the partition scheme or schemes that lack a NEXT USED filegroup.

MERGE [RANGE (*boundary_value*)]

Drops a partition and merges any values that exist in the partition into one of the remaining partitions.

RANGE (*boundary_value*) must be an existing boundary value, into which the values from the dropped partition are merged. The filegroup that originally held *boundary_value* is removed from the partition scheme unless it is used by a remaining partition, or is marked with the NEXT USED property. The merged partition resides in the filegroup that originally did not hold *boundary_value*. *boundary_value* is a constant expression that can reference variables (including user-defined type variables) or functions (including user-defined functions). It cannot reference a Transact-SQL expression. *boundary_value* must either match or be implicitly convertible to the data type of its corresponding partitioning column, and cannot be truncated during implicit conversion in a way that the size and scale of the value does not match that of its corresponding *input_parameter_type*.

SWITCH [PARTITION *source_partition_number_expression*] TO [*schema_name.*] *target_table* [PARTITION *target_partition_number_expression*]

Switches a block of data in one of the following ways:

Reassigns all data of a table as a partition to an already-existing partitioned table.

Switches a partition from one partitioned table to another.

Reassigns all data in one partition of a partitioned table to an existing non-partitioned table.

If *table* is a partitioned table, *source_partition_number_expression* must be specified. If *target_table* is partitioned, *target_partition_number_expression* must be specified. If reassigning a table's data as a partition to an already-existing partitioned table, or switching a partition from one partitioned table to another, the target partition must exist and it must be empty.

If reassigning one partition's data to form a single table, the target table must already be created and it must be empty. Both the source table or partition, and the target table or partition, must reside in the same filegroup. The corresponding indexes, or index partitions, must also reside in the same filegroup. Many additional restrictions apply to switching partitions. For more information, see Transferring Data Efficiently by Using Partition Switching. *table* and *target_table* cannot be the same. *target_table* can be a multi-part identifier.

source_partition_number_expression and *target_partition_number_expression* are constant expressions that can reference variables and functions. These include user-defined type variables and user-defined functions. They cannot reference Transact-SQL expressions.

Note:

You cannot use the SWITCH statement on replicated tables.

QUESTION 29

You are the administrator of a SQL Server 2008 instance.

The company wants to export data from SQL Server to a Microsoft Excel file. The company assigns this task to you.

You perform this by using the SQL Server Import and Export Wizard.

After this, you save the package definition to a file. Now you have to reexecute the package from the command line.

Which utility should you choose to use?

A. bcp.exe

- B. dta.exe
- C. dtexec.exe
- D. sqlmaint.exe

Answer: C

Section: (none)

Explanation/Reference:

The **dtexec** command prompt utility is used to configure and execute SQL Server Integration Services packages. The **dtexec** utility provides access to all the package configuration and execution features, such as connections, properties, variables, logging, and progress indicators. The **dtexec** utility lets you load packages from three sources: a Microsoft SQL Server database, the SSIS service, and the file system.

Note:

On a 64-bit computer, Integration Services installs a 64-bit version of the **dtexec** utility (dtexec.exe). If you have to run certain packages in 32-bit mode, you will have to install the 32-bit version of the **dtexec** utility. To install the 32-bit version of the **dtexec** utility, you must select either Client Tools or Business Intelligence Development Studio during setup.

Note:

When you use the version of the **dtexec** utility that comes with SQL Server 2008 to run a SQL Server 2005 Integration Services (SSIS) package, Integration Services temporarily upgrades the package to SQL Server 2008 Integration Services (SSIS). However, you cannot use the **dtexec** utility to save these upgraded changes. For more information about how to permanently upgrade a SQL Server 2005 package to SQL Server 2008, see Upgrading Integration Services Packages.

QUESTION 30

You are the administrator of a SQL Server 2008 instance with a database named Dworks.

The Dworks database contains a table named BillDetails which has a clustered primary key named BillId on the BillId column.

The BillDetails table has a single XML column named GoodsDetails.

The XML column has an XML index and XML data are stored in this XML column.

A new column named GoodsID is added to the BillDetails table. GoodsID must be included in the primary key.

Which action should you perform to achieve this goal?

- A. You should drop the XML index on the table. Modify the primary key. Recreate the XML index
- B. You should alter the XML index and set the ALLOW_ROW_LOCKS = OFF option. Alter the primary key and set the ALLOW_ROW_LOCKS = ON option.
- C. You should move the XML data to a temporary table. Clear the XML data from the original table by setting the GoodsDetails column to NULL. Modify the primary key. Repopulate the ProductSpecs column.
- D. You should disable the XML index on the GoodsDetails column. Modify the primary key. Enable the XML index on the ProductSpecs column.

Answer: A

Section: (none)

Explanation/Reference:

1. In order to change a primary key, you have to drop it, or, A PRIMARY KEY constraint cannot be deleted if the following exist:

- If it is referenced by a FOREIGN KEY constraint in another table; the FOREIGN KEY constraint must be deleted first.

- The table has a PRIMARY XML index applied on it.

2. XML indexes fall into the following categories:

- Primary XML index
- Secondary XML index

The **first index on the xml type column must be the primary XML index**. Using the primary XML index, the following types of secondary indexes are supported: PATH, VALUE, and PROPERTY. Depending on the type of queries, these secondary indexes might help improve query performance.

Thus, you have first to drop the XML index as it is the primary index and this forbids the primary key to be dropped.

QUESTION 31

You are the administrator of a SQL Server 2008 instance with an On-Line Analytical Processing (OLAP) database.

The database contains a dimension table named Clients.

Every hour backup of data of the Clients table is performed. But the Clients table contains redundant data.

You have to keep the disk space used to store the Clients table.

Which compression technology should you use?

- A. You should use row compression
- B. You should use page compression
- C. You should use backup compression
- D. You should use windows NTFS file system compression

Answer: B

Section: (none)

Explanation/Reference:

Page Compression

The second and the most vital compression method is page compression. **Page compression allows common data to be shared between rows for a given page**. It uses the following techniques to compress data:

- Row compression. (Already discussed above)
- **Prefix Compression.** **For every column in a page duplicate prefixes are identified.** These prefixes are saved in compression information headers (CI) which resides after page header. A reference number is assigned to these prefixes and that reference number is replaced wherever those prefixes are being used.
- **Dictionary Compression.** Dictionary compression searches for duplicate values throughout the page and stores them in CI. The main difference between prefix and dictionary compression is that prefix is only restricted to one column while dictionary is applicable to the complete page.

Because of the Prefix Compression and Dictionary Compression, duplicate values are shared between rows in a given page. Which leads us to reduce the disk space used.

QUESTION 32

You are the administrator of a SQL Server 2008 instance with a database named DB1.

According to the requirements of the security audit policy only successful and failed logon attempts are recorded in log files.

If records cannot be written to the log files, the SQL Server instance is shut down.

You have to make the SQL Server instance comply with the security audit policy by performing the configuration.

Which Transact-SQL statements should you run?

- A.

```
sp_configure 'show advanced options', 1;  
GO  
RECONFIGURE;  
GO  
sp_configure 'default trace enabled', 1;  
GO  
RECONFIGURE  
GO
```
- B.

```
sp_configure 'show advanced options', 1;  
GO  
RECONFIGURE;  
GO  
sp_configure 'common criteria compliance enabled', 1;  
GO  
RECONFIGURE  
GO
```
- C.

```
CREATE SERVER AUDIT Srv_Audit TO FILE ( FILEPATH = '\\MAIN_SERVER\\Audit\\' ) WITH  
(ON_FAILURE = SHUTDOWN);  
GO  
CREATE DATABASE AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit  
ADD (SUCCESSFUL_LOGIN_GROUP),  
ADD (FAILED_LOGIN_GROUP)  
WITH (STATE=ON);  
GO  
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);  
GO
```
- D.

```
CREATE SERVER AUDIT Srv_Audit TO FILE ( FILEPATH = '\\MAIN_SERVER\\Audit\\' ) WITH  
(ON_FAILURE = SHUTDOWN);  
GO  
CREATE SERVER AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit  
ADD (SUCCESSFUL_LOGIN_GROUP),  
ADD (FAILED_LOGIN_GROUP)  
WITH (STATE=ON);  
GO  
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);  
GO
```

Answer: D

Section: (none)

Explanation/Reference:

Auditing an instance of SQL Server or a SQL Server database involves tracking and logging events that occur on the system. You can use several methods of auditing for SQL Server, as described in Auditing (Database Engine). Beginning in SQL Server 2008 Enterprise, you can also set up automatic auditing by using SQL Server Audit.

There are several levels of auditing for SQL Server, depending on government or standards requirements for your installation. SQL Server Audit provides the tools and processes you must have to enable, store, and view audits on various server and database objects.

You can record server audit action groups per-instance, and either database audit action groups or database audit actions per database. The audit event will occur every time that the auditable action is encountered.

SQL Server Audit Components

An *audit* is the combination of several elements into a single package for a specific group of server actions or database actions. The components of SQL Server Audit combine to produce an output that is called an audit, just as a report definition combined with graphics and data elements produces a report.

SQL Server Audit uses *Extended Events* to help create an audit.

- **SQL Server Audit**

The *SQL Server Audit* object collects a single instance of server or database-level actions and groups of actions to monitor. The audit is at the SQL Server instance level. You can have multiple audits per SQL Server instance.

When you define an audit, you specify the location for the output of the results. This is the audit destination. The audit is created in a *disabled* state, and does not automatically audit any actions. After the audit is enabled, the audit destination receives data from the audit.

- **Server Audit Specification**

The *Server Audit Specification* object belongs to an audit. You can create one server audit specification per audit, because both are created at the SQL Server instance scope.

The server audit specification collects many server-level action groups raised by the Extended Events feature. You can include *audit action groups* in a server audit specification. Audit action groups are predefined groups of actions, which are the atomic events exposed by the Database Engine. These actions are sent to the audit, which records them in the target.

Here only the answer C create Server audit for logins.

QUESTION 33

You are the administrator of a SQL Server 2008 instance which uses mixed authentication mode. The instance runs on a computer which has Windows Server 2003 installed.

You have to make sure that the SQL Server 2008 authenticated logins follow the same password complexity rules that are enforced by Windows Server 2003. Besides this, you must make sure that the password complexity rules continue to be enforced.

Which action should you perform to achieve this goal? (choose more than one)

- A. You should create an SQL Server Agent job. If a rule violation is detected, the job runs periodically to raise an alert
- B. You should modify all logins by using the ALTER LOGIN ... HASHED statement.
- C. You should modify all logins by using the ALTER LOGIN ... CHECK_POLICY = ON statement to.
- D. You should modify all logins by using the ALTER LOGIN ... CHECK_EXPIRATION = ON statement.
- E. You should create a policy by using Policy-Based Management. The policy prevents any violation of these rules

Answer: CE

Section: (none)

Explanation/Reference:

First, the alter login will change all the created logins to use the policy

CHECK_POLICY = { ON | OFF }

Applies only to SQL Server logins. Specifies that the Windows password policies of the computer on which SQL Server is running should be enforced on this login. The default value is ON.

Create one policy that prevent the next logins to be created without the option CHECK_POLICY = ON

QUESTION 34

You are the administrator of a SQL Server 2008 instance with a database named DB1.

You have set the recovery model of DB1 to Full. The table below shows the backup strategy for DB1.

| | | | |
|-----------------|-------------|---------------------|------------------------|
| Day | Sunday | Weekdays | Weekdays |
| Type of Back up | Full backup | Differential backup | Transaction log backup |
| Time | 01:00 | 22:00 | 8:00 12:00 16:00 |

Your company stores the system databases, user database data, and log files on separate disks. A user report that the hard disks which store the user database data files have failed at 15:00 on Wednesday.

According to the requirement of the company CIO, you have to restore DB1 from the database backups, and you must reduce the data loss as soon as possible.

Which action should you perform to achieve this goal?

- A. First you should restore the full backup taken on Sunday. Then you restore the differential backup taken on Wednesday.
- B. First you should back up the transaction log. Then restore the full backup taken on Sunday. At last restore all transaction log backups
- C. First you should back up the transaction log. Second, restore the full backup taken on Sunday. Third, restore the differential backup taken on Tuesday and restore all transaction log backups taken during Wednesday.
- D. First you should restore the full backup taken on Sunday. Then restore the differential backup taken on Monday and Tuesday and restore the transaction log backups taken at 08:00 hours and at 12:00 hours on Wednesday.

Answer: C

Section: (none)

Explanation/Reference:

1. As the transaction log is on a separate disk and this disk is still healthy, you can take a backup of the transaction log. This backup will contain all the committed transactions that have been applied to the database since the latest transaction log backup at 12:00.
2. Restore the full backup of Sunday with NORECOVERY
3. Restore the differential backup of Tuesday with NORECOVERY
4. restore all the transactions log backup with NORECOVERY except for the latest you took. For this backup you will use the RECOVERY option.

QUESTION 35

You are the administrator of a SQL Server 2008 instance.

According to the requirement of the company CIO, users on the SQL Server instance must be able to use the OPENROWSET() function to query remote data source.

Which sp_configure configuration option should you configure?

- A. Agent XPs
- B. remote access
- C. remote proc trans
- D. Ad Hoc Distributed Queries

Answer: D

Section: (none)

Explanation/Reference:

By default, SQL Server does not allow ad hoc distributed queries using OPENROWSET and OPENDATASOURCE. When this option is set to 1, SQL Server allows ad hoc access. When this option is not set or is set to 0, SQL Server does not allow ad hoc access.

Ad hoc distributed queries use the OPENROWSET and OPENDATASOURCE functions to connect to remote data sources that use OLE DB. OPENROWSET and OPENDATASOURCE should be used only to reference OLE DB data sources that are accessed infrequently. For any data sources that will be accessed more than several times, define a linked server.

QUESTION 36

You are the administrator of a SQL Server 2008 instance with a database named DB1. The DB1 database contains the following stored procedure. (Line numbers are used for reference only.)

```
01 CREATE PROCEDURE Sales.Procedure1
02 AS
03 IF OBJECT_ID('Service.Table') IS NOT NULL
04 DROP TABLE Service.Table;
06 CREATE TABLE Service.Table (
07 Id int PRIMARY KEY CLUSTERED,
08 Name varchar(100);
09 );
11 ...
12 GO
```

The following exception is raised when a user tries to invoke Procedure1, "Msg 262, Level 14, State 1, Procedure Procedure1, Line 5 CREATE TABLE permission denied in database 'DB1'."

You should grant the user access to execute Procedure1, you must assign only the required permissions.

Which action should you perform?

- A. Between lines 01 and 02, you should insert the WITH EXECUTE AS 'dbo' clause.
- B. Between lines 01 and 02, you should insert the EXECUTE AS USER = 'dbo' statement.
- C. You should give the user the ALTER permission on the Service schema
- D. You should give the CREATE TABLE permission and permit the user to drop the Service.Table table.

Answer: A

Section: (none)

Explanation/Reference:

```
CREATE { PROC | PROCEDURE } [ schema_name. ] procedure_name [ ; number ]
    [ { @parameter [ type_schema_name. ] data_type }
      [ VARYING ] [ = default ] [ OUT | OUTPUT ] [ READONLY ]
    ] [ , ...n ]
[ WITH <procedure_option> [ , ...n ] ]
[ FOR REPLICATION ]
AS { <sql_statement> [ ; ] [ ...n ] | <method_specifier> }
[ ; ]
<procedure_option> ::=
    [ ENCRYPTION ]
    [ RECOMPILE ]
    [ EXECUTE AS Clause ]
```

```
<sql_statement> ::=
{ [ BEGIN ] statements [ END ] }
```

```
<method_specifier> ::=
EXTERNAL NAME assembly_name.class_name.method_name
```

EXECUTE AS

Specifies the security context under which to execute the stored procedure.

In SQL Server you can define the execution context of the following user-defined modules: functions (except inline table-valued functions), procedures, queues, and triggers.

By specifying the context in which the module is executed, you can control which user account the Database Engine uses to validate permissions on objects that are referenced by the module. This provides additional flexibility and control in managing permissions across the object chain that exists between user-defined modules and the objects referenced by those modules. Permissions must be granted to users only on the module itself, without having to grant them explicit permissions on the referenced objects. Only the user that the module is running as must have permissions on the objects accessed by the module.

EXECUTE } AS { CALLER | SELF | 'user_name'

'user_name'

Specifies the statements inside the module execute in the context of the user specified in *user_name*. Permissions for any objects within the module are verified against *user_name*. *user_name* cannot be specified for DDL triggers with server scope or logon triggers. Use *login_name* instead.

user_name must exist in the current database and must be a singleton account. *user_name* cannot be a group, role, certificate, key, or built-in account, such as NT AUTHORITY\LocalService, NT AUTHORITY\NetworkService, or NT AUTHORITY\LocalSystem.

QUESTION 37

You are the administrator of a SQL Server 2008 with two instances.

The two instances are respectively named InstanceA and InstanceB. There is a database named Dworks on InstanceA.

You move the Dworks database to InstanceB.

A user use a SQL Server login named Mary to access the database on InstanceA with the password "Tk@87#34".

On InstanceB, you create the same SQL Server login.

The user tries to use the SQL Server login Mark to access the Dworks database on InstanceB. But the user gets an error message, according to the indication of the message, the access to the Dworks database has been denied.

You have to make sure that the user can access the Dworks database on InstanceB successfully.

On InstanceB, which Transact-SQL statements should you execute?

- A. USE AdventureWorks;ALTER USER Mary WITH LOGIN = Mary;
- B. USE AdventureWorks;ALTER LOGIN Mary ENABLE;
- C. USE AdventureWorks;ALTER LOGIN Mary WITH PASSWORD = "Tk@87#34" UNLOCK;
- D. USE AdventureWorks;ALTER LOGIN Mary WITH DEFAULT_DATABASE = AdventureWorks;

Answer: A

Section: (none)

Explanation/Reference:

ALTER USER : Renames a database user or changes its default schema.

```
ALTER USER userName
    WITH <set_item> [ ,...n ]
```

```
<set_item> ::=
    NAME = newUserName
    | DEFAULT_SCHEMA = schemaName
    | LOGIN = loginName
```

Arguments

userName

Specifies the name by which the user is identified inside this database.

LOGIN = *loginName*

Re-maps a user to another login by changing the user's Security Identifier (SID) to match the login's SID.

NAME = *newUserName*

Specifies the new name for this user. *newUserName* must not already occur in the current database.

DEFAULT_SCHEMA = *schemaName*

Specifies the first schema that will be searched by the server when it resolves the names of objects for this user.

Renames a database user or changes its default schema.

Remarks

If DEFAULT_SCHEMA is left undefined, the user will have **dbo** as its default schema. DEFAULT_SCHEMA can be set to a schema that does not currently occur in the database. Therefore, you can assign a DEFAULT_SCHEMA to a user before that schema is created. DEFAULT_SCHEMA cannot be specified for a user who is mapped to a Windows group, a certificate, or an asymmetric key.

Important:

The value of DEFAULT_SCHEMA is ignored if the user is a member of the **sysadmin** fixed server role. All members of the **sysadmin** fixed server role have a default schema of **dbo**.

You can change the name of a user who is mapped to a Windows login or group only when the SID of the new user name matches the SID that is recorded in the database. This check helps prevent spoofing of Windows logins in the database.

The WITH LOGIN clause enables the remapping of a user to a different login. Users without a login, users mapped to a certificate, or users mapped to an asymmetric key cannot be re-mapped with this clause. Only SQL users and Windows users (or groups) can be remapped. The WITH LOGIN clause cannot be used to change the type of user, such as changing a Windows account to a SQL Server login.

The name of the user will be automatically renamed to the login name if the following conditions are true.

- The user is a Windows user.
- The name is a Windows name (contains a backslash).
- No new name was specified.
- The current name differs from the login name.

Otherwise, the user will not be renamed unless the caller additionally invokes the NAME clause.

QUESTION 38

You are the administrator of a SQL Server 2008 instance with a database named DB1.

The customers access their profile data by using a Web application.

You must ensure the security of the customer data, that is to say, even if the backup media is lost, you must guarantee that data files, log files and subsequent backups and so on are as safe as possible.

Which action should you perform to achieve this goal?

- A. For both the CustomerDB database and the master database, enable Transparent Database Encryption
- B. You should use the built-in encryption functions to encrypt the sensitive data at the cell level
- C. You should make the CustomerDB database accessible only through stored procedures and functions.
- D. For the CustomerDB database, enable Transparent Database Encryption and back up the transaction log.

Answer: D

Section: (none)

Explanation/Reference:

You can take several precautions to help secure the database such as designing a secure system, encrypting confidential assets, and building a firewall around the database servers. **However, in a scenario where the physical media (such as drives or backup tapes) are stolen**, a malicious party can just restore or attach the database and browse the data. One solution is to encrypt the sensitive data in the database and protect the keys that are used to encrypt the data with a certificate. This prevents anyone without the keys from using the data, but this kind of protection must be planned in advance.

Transparent data encryption (TDE) performs real-time I/O encryption and decryption of the data and log files. The encryption uses a database encryption key (DEK), which is stored in the database boot record for availability during recovery. The DEK is a symmetric key secured by using a certificate stored in the master database of the server or an asymmetric key protected by an EKM module. TDE protects data "at rest", meaning the data and log files. It provides the ability to comply with many laws, regulations, and guidelines established in various industries. **This enables software developers to encrypt data by using AES and 3DES encryption algorithms without changing existing applications.**

QUESTION 39

You are the administrator in charge of two instances both of which run on the same computer. One is a SQL Server 2008 instance; another is a SQL Server 2005 instance.

There is a database named DB1 in the SQL Server 2008 instance. DB1 uses the Fulltext indexes. Several records that include the word "root" are added to DB1. An empty resultset is returned when the Fulltext index is queried for the word "root."

You have to make sure the query can return records that contain the word "root".

What should you do?

- A. You should terminate and restart the MSFTESQL service
- B. You should rebuild the full-text index
- C. The word "root" should be added to the stop list
- D. The word "root" should be added to the thesaurus file

Answer: B

Section: (none)

Explanation/Reference:

Updating a Full-Text Index

Like regular SQL Server indexes, full-text indexes can be automatically updated as data is modified in the associated tables. This is the default behavior. Alternatively, you can keep your full-text indexes up-to-date manually or at specified scheduled intervals. Populating a full-text index can be time-consuming and resource-intensive, therefore, index updating is usually performed as an asynchronous process that runs in the background and keeps the full-text index up to date after modifications in the base table. Updating a full-text index immediately after each change in the base table can be resource-intensive. Therefore, if you have a very high update/insert/delete rate, you might experience some degradation in query performance. If this occurs, consider scheduling manual change tracking updates to keep up with the numerous changes from time to time, rather than competing with queries for resources.

To monitor the population status, use either the FULLTEXTCATALOGPROPERTY or OBJECTPROPERTYEX functions. To get the catalog population status, run the following statement:

```
SELECT FULLTEXTCATALOGPROPERTY('AdvWksDocFTCat', 'Populatestatus');
```

Typically, if a full population is in progress, the result returned is 1.

QUESTION 40

You are the administrator of a SQL Server 2008 instance with a database named Dworks. The Dworks database has the Products table. Now you have to replicate the Products table to the SQL Server instances at remote locations, so you create a Merge Replication topology and a Publication to do this.

The Publication has a 21-day retention period. There is a user who goes on a business trip, 30 days later he comes back and finds that data in his database is not the latest.

The Windows Event log states the following error message: "Replication: expired subscription dropped."

You must get the latest data in the user's database and make sure that future data changes are appropriately replicated.

Which action should you perform to achieve this goal?

- A. You should recreate the publication
- B. You should upload unsynchronized changes.
- C. You should reinitialize the publication and generate a new snapshot at once.
- D. You should upload unsynchronized changes, and then reinitialize the publication

Answer: C

Section: (none)

Explanation/Reference:

Merge replication uses the publication retention period (the **@retention** and **@retention_period_unit** parameters of **sp_addmergepublication** (Transact-SQL)). **When a subscription expires, it must be reinitialized, because metadata for the subscription is removed.** Subscriptions that are not reinitialized are dropped by the **Expired subscription clean up** job that runs on the Publisher. By default, this job runs daily; it removes all push subscriptions that have not synchronized for double the length of the publication retention period. For example:

- If a publication has a retention period of 14 days, a subscription can expire if it has not synchronized within 14 days.

If the Publisher is running SQL Server 2005 or a later version and the agent for the subscription is from SQL Server 2005 or a later version, a subscription only expires if there have been changes to the data in that subscription's partition. For example, suppose a Subscriber receives customer data only for customers in Germany. If the retention period is set to 14 days, the subscription expires on day 14 only if there have been changes to the German customer data in the last 14 days.

- From 14 days to 27 days after the last synchronization, the subscription can be reinitialized.
- At 28 days after the last synchronization, the subscription is dropped by the **Expired subscription clean up** job. If a push subscription expires, it is completely removed, but pull subscriptions are not. You must clean up pull subscriptions at the Subscriber. For more information, see *How to: Delete a Pull Subscription* (Replication Transact-SQL Programming).

QUESTION 41

You are the administrator of a SQL Server 2008 instance with a database named DB1.

A backup of DB1 is performed every day.

You have to minimize the size of the full database backup files of DB1.

Which Transact-SQL statement should you use?

- A. `BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak';`

- B. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH COMPRESSION;
C. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH DIFFERENTIAL;
D. BACKUP DATABASE DB1 TO DISK = 't:\backups\db1.bak' WITH COMPRESSION, DIFFERENTIAL;

Answer: B

Section: (none)

Explanation/Reference:

We will use the compression option to minimize the FULL backup size. So, answer D is giving us one differential backup

COMPRESSION:

Backup compression was introduced in SQL Server 2008 Enterprise. This topic discusses the basics of backup compression, including the performance trade-off of compressing backups.

Note:

Though creating compressed backups is supported only in SQL Server 2008 Enterprise and later, every SQL Server 2008 or later edition can restore a compressed backup.

Restrictions

The following restrictions apply to compressed backups:

- Compressed and uncompressed backups cannot co-exist in a media set.
- Previous versions of SQL Server cannot read compressed backups.
- NTbackups cannot share a tape with compressed SQL Server backups.

QUESTION 42

You are the administrator of a SQL Server 2008 instance which uses mixed authentication mode. The instance runs on a computer which has Windows Server 2003 installed.

You have to make sure that the SQL Server 2008 authenticated logins follow the same password complexity rules that are enforced by Windows Server 2003. Besides this, you must make sure that the password complexity rules continue to be enforced.

Which action should you perform to achieve this goal? (choose more than one)

- A. You should create an SQL Server Agent job. If a rule violation is detected, the job runs periodically to raise an alert
- B. You should modify all logins by using the ALTER LOGIN ... HASHED statement.
- C. You should modify all logins by using the ALTER LOGIN ... CHECK_POLICY = ON statement to.
- D. You should modify all logins by using the ALTER LOGIN ... CHECK_EXPIRATION = ON statement.
- E. You should create a policy by using Policy-Based Management. The policy prevents any violation of these rules

Answer: CE

Section: (none)

Explanation/Reference:

First, the alter login will change all the created logins to use the policy

CHECK_POLICY = { ON | OFF }

Applies only to SQL Server logins. Specifies that the Windows password policies of the computer on which SQL Server is running should be enforced on this login. The default value is ON.

Create one policy that prevent the next logins to be created without the option CHECK_POLICY = ON

Exam C

QUESTION 1

You are the administrator of a SQL Server 2008 instance named Instance01.

Instance01 contains a database which is named SellingHelp. There is the Products table in the SellingHelp database.

Now according to the company requirement, the Products table has to be replicated to the SQL Server instances installed in laptops computers. You have to create a Replication topology to perform this.

The Products table is updated from Instance01 when the laptops reconnect to the corporate network. The Products table on Instance01 is frequently updated between reconnections.

You have to make sure that you can implement the Replication topology along with the Subscription type successfully and meanwhile reduce the bandwidth usage to the least.

Which action should you perform to achieve this goal?

- A. You should implement the Snapshot Replication topology along with a Push Subscription.
- B. You should implement the Merge Replication topology along with a Pull Subscription.
- C. You should implement the Snapshot Replication topology along with a Pull Subscription.
- D. You should implement the Transactional Replication topology along with a Pull Subscription

Answer: B

Section: (none)

Explanation/Reference:

Merge replication, like transactional replication, typically starts with a snapshot of the publication database objects and data. Subsequent data changes and schema modifications made at the Publisher and Subscribers are tracked with triggers. The Subscriber synchronizes with the Publisher when connected to the network and exchanges all rows that have changed between the Publisher and Subscriber since the last time synchronization occurred.

Merge replication is typically used in server-to-client environments.

QUESTION 2

You are the administrator of a SQL Server 2008 with three SQL Server 2008 instances.

All the instances run on their independent server. The three instances are respectively named InstanceA, InstanceB, and InstanceC.

Between InstanceA and InstanceB, you configure a mirroring mission-critical database.

InstanceA currently acts as the Principal and InstanceC acts as the witness.

You intend to apply a patch to both servers as soon as possible, the patch needs to restart the server. You have to make sure that the database is online on the partner that currently does not apply the patch and during this time the database does not failover to the other partner.

Which action should you perform to achieve this goal?

- A. First, you should stop the mirroring session.
Second you apply the patch to the server that runs InstanceB.
Third, you should resume the mirroring session.
Fourth, you should manually failover the mirroring session.
At last, you should apply the patch to the server that runs InstanceA.
- B. First, you should apply the patch to the server that runs InstanceB.
Second you apply the patch to the server that runs InstanceA.

- C. First, you should apply the patch to the server that runs InstanceB.
Second you failover the mirroring session manually.
At last apply the patch to the server that runs InstanceA
- D. First, you should remove the mirroring session.
Second you apply the patch to the server that runs InstanceB.
Third, you should apply the patch to the server that runs InstanceA.
At last re-establish the mirroring session.

Answer: A

Section: (none)

Explanation/Reference:

1. Status= SUSPENDED: The mirror copy of the database is not available. The principal database is running without sending any logs to the mirror server, a condition known as *running exposed*. This is the state after a failover.
2. Patch the target server
3. resume the mirrorin, in order to have the SYNCHRONIZED status
4. Make a failover from the source Instance A to InstanceB, the already patched server.
5. Apply the patch to the Instance A

QUESTION 3

You are the administrator of a SQL Server 2008 instance with a database named DB1.
At the database a small percentage of data is modified everyday.

Ever day in the morning, you have to create a read-only copy of the database for reporting purposes and make sure

that you use as little disk space as possible. In the options below,

which strategy should you use?

- A. You should use database snapshots
- B. You should use database backup and restore
- C. You should use database backup and restore along with compression
- D. You should use schema-bound views in a read-only database. The database resides on the same instance.

Answer: A

Section: (none)

Explanation/Reference:

This topic describes the database snapshot feature, which was new in Microsoft SQL Server 2005. Database snapshots are available only in SQL Server 2005 Enterprise Edition and later versions. All recovery models support database snapshots.

A database snapshot is a read-only, static view of a database (the *source database*). Multiple snapshots can exist on a source database and always reside on the same server instance as the database. Each database snapshot is transactionally consistent with the source database as of the moment of the snapshot's creation. A snapshot persists until it is explicitly dropped by the database owner.

Unlike default behavior for user databases, a database snapshot is created with the ALLOW_SNAPSHOT_ISOLATION database option set ON regardless of the setting of this option on the primary database or the model system database.

Snapshots can be used for reporting purposes. Also, in the event of a user error on a source database, you can revert the source database to the state it was in when the snapshot was created. Data loss is confined to updates to the database since the snapshot's creation.

QUESTION 4

You are the administrator of a SQL Server 2008 instance.

There is a text file which is named SQL01.log on the E: drive. A SQL Server Agent job executes every 2 minutes and logs information to the text file.

You get a report from users saying that the sever doesn't make response.

As the technical support, you check and find that the SQL Server Agent service does not run and the SQL Server Agent job no longer functions.

You have to identify the reason why the SQL Server Agent service is unresponsive.

Which log should you check?

- A. You should check SQL1.log
- B. You should check SQLAGENT.OUT
- C. You should check log_xx.trc
- D. You should check ERRORLOG

Answer: B

Section: (none)

Explanation/Reference:

All the informations about SQL Server Agent error could be found in the SQLAGENT.OUT file.

QUESTION 5

You are the administrator of a SQL Server 2008 instance.

According to the company requirement, you have to move the application from Microsoft SQL Server 2000 to Microsoft SQL Server 2008.

You have to monitor the SQL Server instance to record the use of features. These features will be discontinued.

What should you do?

- A. The SQL Server 2008 Upgrade Advisor should be used.
- B. The SQL Server Profiler which captures the SQL:BatchCompleted and Exception event classes should be used.
- C. A SQL server-side trace that captures the Deprecation Announcement and Deprecation Final Support event classes should be used
- D. A SQL server-side trace that captures the SQL:BatchCompleted and Exception event classes should be used.

Answer: C

Section: (none)

Explanation/Reference:

The **Deprecation Final Support** event class occurs when you use a feature that will be removed from the next major release of SQL Server. For greatest longevity of your applications, do not use features that cause the **Deprecation Final Support** event class or the **Deprecation Announcement** event class. Modify applications that use final deprecation features as soon as possible.

QUESTION 6

You are the administrator of a SQL Server 2008 instance.

A SQL Server Agent job is failing.

You find that the job history information is incomplete and seems to be truncated after you review it. All information produced by a job must be available for viewing.

Which action should you perform to achieve this goal?

- A. You should enable notifications to the Windows application event log when the job completes.
- B. You should enable write OEM file
- C. You should enable all job steps, making them send the output to a file
- D. You should include execution trace messages in the SQL Agent Error log

Answer: C

Section: (none)

Explanation/Reference:

In all the jobsteps, go to the option panel and select Output file to get all info from the step. Note that you can append or override the file. All job steps should be adapted with the option.

Output file Sets the file to use for output from the job step.

QUESTION 7

You are the administrator of a SQL Server 2008 instance with a database named AdventureWorks. The AdventureWorks database contains the Products table.

You create a Merge Replication topology and a Publication to replicate the Products table to the SQL Server instances at remote locations.
The Publication has a 21-day retention period.

When a user returns from a one-month vacation, she discovers that her database does not contain the most recent data.

The Windows Event log states the following error message: "Replication: expired subscription dropped."

You need to obtain the most recent data in the database of the user. You also need to ensure that future data changes are appropriately replicated.

What should you do?

- A. Recreate the publication.
- B. Upload unsynchronized changes.
- C. Upload unsynchronized changes, and then reinitialize the publication.
- D. Reinitialize the publication and immediately generate a new snapshot.

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 8

You are the administrator of three SQL Server 2008 instances named Instance1, Instance2, and Instance3.

Each of the three instances runs on a separate server. A mission-critical database is mirrored between Instance1 and Instance2.

Instance3 acts as the witness. Instance1 currently acts as the Principal.

You plan to apply a patch to both servers. The patch requires a restart of the server.

You need to find out the sequence of steps necessary to ensure that the following requirements are met:

1. The patching process is completed in the shortest possible time.
2. The database is online on the partner that currently does not apply the patch.

3. The database does not failover to the other partner during this time.

What should you do?

- A. Apply the patch to the server that runs Instance2.
Apply the patch to the server that runs Instance1.
- B. Apply the patch to the server that runs Instance2.
Manually failover the mirroring session.
Apply the patch to the server that runs Instance1.
- C. Remove the mirroring session.
Apply the patch to the server that runs Instance2.
Apply the patch to the server that runs Instance1.
Re-establish the mirroring session.
- D. Suspend the mirroring session.
Apply the patch to the server that runs Instance2.
Resume the mirroring session.
Manually failover the mirroring session.
Apply the patch to the server that runs Instance1.

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 9

You are the administrator of multiple SQL Server 2008 instances.
You are designing a consolidated repository of performance data.

You need to ensure that the following requirements are met:

- 1. The data collector is used to gather performance information.
- 2. A single database stores performance information for all instances.
- 3. Performance information that is older than 14 days is deleted.
- 4. Administrative effort to manage performance data is minimized.

What should you do?

- A. Create and schedule a single Microsoft SQL Service Integration Services (SSIS) package process to store and delete performance data in a single database for all instances.
- B. Create a SQL Agent job process on each instance to store and delete performance data in a single database for all instances.
- C. Configure a management data warehouse process on each instance to store and delete performance data in a single database for all instances.
- D. Configure an automated server-side trace process on each instance to store and delete performance data in a single database for all instances.

Answer: C

Section: (none)

Explanation/Reference:

QUESTION 10

You are the administrator of a SQL Server 2008 instance. .

You plan to maintain a management data warehouse that collects performance data by using the data collector.

You need to implement a process that routinely gathers and uploads data in the management data warehouse on different schedules.

What data collection process should you implement?

- A. Create a cached data collection.
- B. Create a scheduled non-cached data collection.
- C. Create an on-demand non-cached data collection.
- D. Create two different SQL Agent jobs that are scheduled at the same time. One job creates a data collection and the other job uploads the data collection.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 11

You are the administrator of a SQL Server 2008 instance.

Users report that the performance of the application is poor.

You use SQL Profiler to capture a workload of the remote instance to a trace table on the remote SQL Server instance.

You need to analyze the workload of the remote SQL Server instance on a local SQL Server instance by using the Database Engine Tuning Advisor.

What should you do?

- A. Use the data collector to recapture the workload.
- B. Use SQL Profiler to recapture the workload to a trace file.
- C. Enable the XP_MSVER stored procedure on the local server.
- D. Enable the XP_MSVER stored procedure on the remote server.

Answer: B

Section: (none)

Explanation/Reference:

QUESTION 12

You are the administrator of a SQL Server 2008 instance.

A user named Mary reports that she is waiting for a query to complete. You need to ascertain whether the query is blocked.

Which tool should you use?

- A. The Windows System Monitor tool
- B. The Database Engine Tuning Advisor tool
- C. The Activity Monitor tool in Microsoft SQL Server Management Studio
- D. The Job Activity Monitor tool in Microsoft SQL Server Management Studio

Answer: C

Section: (none)

Explanation/Reference:

QUESTION 13

You are the administrator of a SQL Server 2008 instance that runs on a computer that hosts several applications.

You configure the SQL Server Agent service to run by using the SERVER1\AGENT account.

You create a job named MailingList that requires a file to be written to a file server.

The job fails to run because it does not have appropriate access to the file server. You plan to configure the SQL Server Agent service.

You need to perform the configuration such that only the SQL Server Agent service has read and write access to the file server.

Which account type should you use?

- A. Domain account
- B. Local System account
- C. Local Service account
- D. Network Service account

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 14

You are the administrator of a SQL Server 2008 instance with a database named Sales.

The Sales database has a table named Products that stores information about all types of products. Users frequently query the Products table based on the TelevisionSize column.

The TelevisionSize column has the NULL value for all products other than Televisions. There is currently no index on the TelevisionSize column.

You need to improve the query performance by ensuring that the effect on the disk space is minimized.

What should you do?

- A. Create a filtered index on the TelevisionSize column.
- B. Create a clustered index on the TelevisionSize column.
- C. Create a unique clustered index on the TelevisionSize column.
- D. Create a view on the Products table by filtering on the TelevisionSize column.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 15

You are the administrator of a SQL Server 2008 instance.

The instance contains an On-Line Analytical Processing (OLAP) database along with a dimension table

named Customers.

The data of the Customers table is updated every hour. The Customers table contains redundant data.

You need to conserve the disk space used to store the Customers table.

Which compression technology should you use?

- A. Row compression
- B. Page compression
- C. Backup compression
- D. Windows NTFS file system compression

Answer: B

Section: (none)

Explanation/Reference:

QUESTION 16

You are the administrator of a SQL Server 2008 instance with a database named AdventureWorks.

The AdventureWorks database contains two tables as shown in the following table:

1. The Orders table contains a table partition for each month.
2. The OrderHistory table contains two table partitions; one partition contains all data and the other partition is empty.
3. You plan to develop a process to move data from the partition that contains data for the oldest month of the Orders table to the appropriate partition of the OrderHistory table.
4. You need to ensure that the process can be repeated at the end of every month.

What should you do?

- A. Alter the partition function of the Orders table by using the split option.
Alter the Orders table by using the merge option.
- B. Alter the partition function of the OrderHistory table by using the split option.
Switch the appropriate partition of the Orders table to the appropriate partition of the OrderHistory table.
Alter the OrderHistory table by using the split option.
- C. Alter the partition function of the Orders table by using the split option.
Alter the OrderHistory table by using the split option.
Alter the partition function of the OrderHistory table by using the merge option
Alter the Orders table by using the merge option.
- D. Alter the partition function of the OrderHistory table by using the split option.
Switch the appropriate partition of the Orders table to the appropriate partition of the OrderHistory table.
Alter the OrderHistory table by using the merge option.
Alter the Orders table by using the merge option.

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 17

You are the administrator of a SQL Server 2008 instance with a database named Finance.

Minimally logged operations are performed on the Finance database.
You need to verify that the database can be restored to a specific point in time.

What should you do?

- A. Verify that the database uses the full recovery model
- B. Verify that the database uses the simple recovery model.
- C. Verify that the database uses the bulk-logged recovery model.
- D. Verify that the database uses the checksum page verify option.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 18

You are the administrator of a SQL Server 2008 instance with a database named Finance.

The Finance database currently contains 100 GB of data. On an average, 1 GB of data is modified or inserted daily.

The recovery model of the Finance database is set to Simple.

Business requirements specify that data loss of more than two hours worth of transactions during business hours is unacceptable.

You need to select a backup strategy that uses the least amount of disk space by adhering to the business requirements.

What should you do?

- A. Perform a full database backup once daily.
- B. Perform a full database backup once daily.
Perform a differential backup every two hours during business hours.
- C. Perform a full database backup once daily.
Perform a transaction log backup every two hours during business hours.
- D. Perform a full database backup once every week.
Perform a differential backup once daily.
Perform a transaction log backup every two hours during business hours.

Answer: B

Section: (none)

Explanation/Reference:

QUESTION 19

You are the administrator of a SQL Server 2008 instance.

The instance contains a database named Finance. The recovery model of the Finance database is set to Full.

You deploy a new process that modifies 10,000 records from the Accounts table at 19:00 hours daily.
You need to ensure that any modification to the data can be reverted without the database going offline.

Which strategy should you implement?

- A. Database snapshots

- B. Differential backup
- C. Transaction log backup
- D. Primary filegroup backup

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 20

You are the administrator of a SQL Server 2008 instance. The instance that runs on a Windows Server 2003 computer.
with mixed authentication mode.

You need to ensure that the SQL Server 2008 authenticated logins follow the same password complexity rules that are enforced by Windows Server 2003. You also need to ensure that the password complexity rules continue to be enforced.

Which two actions should you perform?
(Each correct answer presents part of the solution. Choose two.)

- A. Use the ALTER LOGIN ... HASHED statement to modify all logins.
- B. Use the ALTER LOGIN ... CHECK_POLICY = ON statement to modify all logins.
- C. Use the ALTER LOGIN ... CHECK_EXPIRATION = ON statement to modify all logins.
- D. Use Policy-Based Management to create a policy that prevents any violation of these rules.
- E. Create an SQL Server Agent job that runs periodically to raise an alert if a rule violation is detected.

Answer: BD

Section: (none)

Explanation/Reference:

QUESTION 21

You maintain a SQL Server 2008 instance.

You create a new SQL Agent job that includes a Windows PowerShell job step.
The PowerShell job step uses the SQLCmd utility to transfer data between servers.

You need to ensure that an operator named ResponseTeam is notified by an e-mail message if the job fails.

What should you do?

- A. Enable Notifications.
Create the ResponseTeam operator.
Direct the Notification to the ResponseTeam operator on job failure.
- B. Enable Notifications.
Create the ResponseTeam operator.
Direct the Notification to the ResponseTeam operator on failure of the Powershell job step.
- C. Create the ResponseTeam operator.
Assign the ResponseTeam operator as the fail safe operator.
Enable the job.

- D. Create the ResponseTeam operator.
Configure the job step proxy account to use the ResponseTeam operator account.
Select the proxy account for the e-mail profile.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 22

You are the administrator of a SQL Server 2008 instance.

All the instances run on their independent server. The three instances are respectively named **InstanceA**, **InstanceB**, and **InstanceC**. Between **InstanceA** and **InstanceB**, you configure a mirroring mission-critical database.

InstanceA currently acts as the Principal and **InstanceC** acts as the witness.

You intend to apply a patch to both servers as soon as possible, the patch needs to restart the server. You must make sure that the database is online on the partner that currently does not apply the patch and during this time the database does not failover to the other partner.

Which action should you perform to achieve this goal?

- A. First, you should stop the mirroring session. Second you apply the patch to the server that runs InstanceB. Third, you should resume the mirroring session. Fourth, you should manually failover the mirroring session. At last, you should apply the patch to the server that runs Instance1.
- B. First, you should apply the patch to the server that runs InstanceB. Second you apply the patch to the server that runs InstanceA.
- C. First, you should apply the patch to the server that runs InstanceB. Second you failover the mirroring session manually. At last apply the patch to the server that runs InstanceA
- D. First, you should remove the mirroring session. Second you apply the patch to the server that runs InstanceB. Third, you should apply the patch to the server that runs Instance1. At last re-establish the mirroring session.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 23

You are the administrator of a SQL Server 2008 instance with a database named DB1. In the Services schema there is a table named Service.Table.

The Services.Table has to be moved from the Sales schema to a new schema named Costs.

Which Transact-SQL statement should you execute?

- A. ALTER TABLE Service.Table SWITCH TO Costs.Table1;
- B. ALTER SCHEMA Costs TRANSFER Service.Table;
- C. ALTER USER Service WITH DEFAULT_SCHEMA = Costs;
- D. ALTER AUTHORIZATION ON Service.Table1 TO Costs;

Answer: B

Section: (none)

Explanation/Reference:

QUESTION 24

You are the administrator of a SQL Server 2008 instance with a database named DB1. wch contains the following stored procedure.

(Line numbers are used for reference only.)

```
01 CREATE PROCEDURE Sales.Procedure1
02 AS
03 IF OBJECT_ID('Service.Table') IS NOT NULL
04 DROP TABLE Service.Table;
05
06 CREATE TABLE Service.Table (
07 Id int PRIMARY KEY CLUSTERED,
08 Name varchar(100);
09 );
10
11 ...
12 GO
```

The following exception is raised when a user tries to invoke Procedure1,
"Msg 262, Level 14, State 1, Procedure Procedure1, Line 5
CREATE TABLE permission denied in database 'DB1'."

You should grant the user access to execute Procedure1, you must assign only the required permissions.

Which action should you perform?

- A. Between lines 01 and 02, you should insert the WITH EXECUTE AS 'dbo' clause.
- B. Between lines 01 and 02, you should insert the EXECUTE AS USER = 'dbo' statement.
- C. You should give the user the ALTER permission on the Service schema
- D. You should give the CREATE TABLE permission and permit the user to drop the Service.Table table.

Answer: A

Section: (none)

Explanation/Reference:

QUESTION 25

You are the administrator of a SQL Server 2008 instance with a database named Dworks. The table below shows the two tables of the Dworks database:

There are two partitions in the BillHistory table. Partition1 is empty while partition2 contains all data. You intend to move data from partition2 to the appropriate partition of the BillHistory table. Partions2 contains data for the oldest month of the Bills table.

You are going to develop a process to achieve this.

You have to make sure that at the end of every month the process can be repeated.

- A. Alter the partition function of the BillHistory table by using the split option.
Switch the appropriate partition of the Bills table to the appropriate partition of the BillHistory table.
Alter the BillHistory table by using the split option.
- B. Alter the partition function of the Bills table by using the split option.
Alter the Billstable by using the merge option.

- C. Alter the partition function of the BillHistory table by using the split option.
Switch the appropriate partition of the Bills table to the appropriate partition of the BillHistory table.
Alter the BillHistory table by using the merge option.
Alter the Bills table by using the merge option.
- D. Alter the partition function of the Bills table by using the split option.
Alter the BillHistory table by using the split option.
Alter the partition function of the BillHistory table by using the merge option.
Alter the Bill stable by using the merge option.

Answer: C

Section: (none)

Explanation/Reference:

QUESTION 26

You are the administrator of a SQL Server 2008 instance.

You notice that the application has a poor performance. On the remote SQL Server instance, you capture a workload of the remote instance to a trace table by using SQL Profiler.

You use the Database Engine Tuning Advisor to analyze the workload of the remote SQL Server instance on a local SQL Server instance.

Which action should you perform to achieve this goal?

- A. You should recapture the workload by using the data collector.
- B. You should enable the XP_MSVER stored procedure on the local server.
- C. You should enable the XP_MSVER stored procedure on the remote server
- D. You should recapture the workload to a trace file by using SQL Profiler.

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 27

You are the administrator of a SQL Server 2008 instance.

According to the company requirement the names of all user-defined stored procedures must contain the prefix usp_ on all instances.

You have to make sure that stored procedures that do not contain this prefix cannot be created by you.

What should you do?

- A. A policy should be created. The policy targets the name of the stored procedure that is evaluated on demand.
- B. A policy should be created. The policy targets the name of the stored procedure that is evaluated on change.
- C. A condition should be created. The condition targets the name of the stored procedure that is evaluated on change
- D. A condition should be created. The condition targets the name of stored procedure that is evaluated on demand.

Answer: B

Section: (none)

Explanation/Reference:

Policy-Based Management is a system for managing one or more instances of SQL Server 2008. When SQL Server policy administrators use Policy-Based Management, they use SQL Server Management Studio to create policies to manage entities on the server, such as the instance of SQL Server, databases, or other SQL Server objects.

Policy-Based Management has three components:

Policy management

Policy administrators create policies.

Explicit administration

Administrators select one or more managed targets and explicitly check that the targets comply with a specific policy, or explicitly make the targets comply with a policy.

Evaluation modes

There are four evaluation modes, three of which can be automated:

On demand. This mode evaluates the policy when directly specified by the user.

On change: prevent. This automated mode uses DDL triggers to prevent policy violations.

Important:

If the nested triggers server configuration option is disabled, **On change: prevent** will not work correctly. Policy-Based Management relies on DDL triggers to detect and roll back DDL operations that do not comply with policies that use this evaluation mode. Removing the Policy-Based Management DDL triggers or disabling nest triggers, will cause this evaluation mode to fail or perform unexpectedly.

On change: log only. This automated mode uses event notification to evaluate a policy when a relevant change is made.

On schedule. This automated mode uses a SQL Server Agent job to periodically evaluate a policy.

When automated policies are not enabled, Policy-Based Management will not affect system performance.

QUESTION 28

You are the administrator of a SQL Server 2008 instance.

There is an On-Line Analytical Processing (OLAP) database named in the instance.

The database contains a dimension table named Clients.

Every hour backup of data of the Clients table is performed. But the Clients table contains redundant data.

You must keep the disk space used to store the Clients table.

Which compression technology should you use?

- A. You should use row compression
- B. You should use page compression
- C. You should use backup compression
- D. You should use windows NTFS file system compression

Answer: B

Section: (none)

Explanation/Reference:

Page Compression

The second and the most vital compression method is page compression. **Page compression allows common data to be shared between rows for a given page**. It uses the following techniques to compress data:

- Row compression. (Already discussed above)
- **Prefix Compression.** *For every column in a page duplicate prefixes are identified.* These prefixes are saved in compression information headers (CI) which resides after page header. A reference number is assigned to these prefixes and that reference number is replaced wherever those prefixes are being used.
- **Dictionary Compression.** Dictionary compression searches for duplicate values throughout the page and stores them in CI. The main difference between prefix and dictionary compression is that prefix is only restricted to one column while dictionary is applicable to the complete page.

Because of the Prefix Compression and Dictionary Compression, duplicate values are shared between rows in a given page. Which leads us to reduce the disk space used.

QUESTION 29

You are the administrator of a SQL Server 2008 instance with a database named Dworks, the Dworks database has the Products table.

You have to replicate the Products table to the SQL Server instances at remote locations, so you create a Merge Replication topology and a Publication to do this.

The Publication has a 21-day retention period. There is a user who goes on a business trip, 30 days later he comes back and finds that data in his database is not the latest.

The Windows Event log states the following error message: "Replication: expired subscription dropped."

You must get the latest data in the user's database and make sure that future data changes are appropriately replicated.

Which action should you perform to achieve this goal?

- A. You should recreate the publication
- B. You should upload unsynchronized changes.
- C. You should reinitialize the publication and generate a new snapshot at once.
- D. You should upload unsynchronized changes, and then reinitialize the publication

Answer: C

Section: (none)

Explanation/Reference:

Merge replication uses the publication retention period (the **@retention** and **@retention_period_unit** parameters of **sp_addmergepublication** (Transact-SQL)). **When a subscription expires, it must be reinitialized, because metadata for the subscription is removed.** Subscriptions that are not reinitialized are dropped by the **Expired subscription clean up** job that runs on the Publisher. By default, this job runs daily; it removes all push subscriptions that have not synchronized for double the length of the publication retention period. For example:

- If a publication has a retention period of 14 days, a subscription can expire if it has not synchronized within 14 days.

If the Publisher is running SQL Server 2005 or a later version and the agent for the subscription is from SQL Server 2005 or a later version, a subscription only expires if there have been changes to the data in that subscription's partition. For example, suppose a Subscriber receives customer data only for customers in Germany. If the retention period is set to 14 days, the subscription expires on day 14 only if there have been changes to the German customer data in the last 14 days.

- From 14 days to 27 days after the last synchronization, the subscription can be reinitialized.
- At 28 days after the last synchronization, the subscription is dropped by the **Expired subscription clean up** job. If a push subscription expires, it is completely removed, but pull subscriptions are not. You must clean up pull subscriptions at the Subscriber. For more information, see How to: Delete a Pull Subscription (Replication Transact-SQL Programming).

QUESTION 30

You are the administrator of a SQL Server 2008 instance. There is a database named DB1, you are checking and configuring the security of the instance.

According to the requirement of the security audit policy, only successful and failed logon attempts are recorded in log files

and if records cannot be written to the log files, the SQL Server instance is shut down.

You must configure the SQL Server instance making it not violate the security audit policy.

Which Transact-SQL statements should you run?

- A.

```
sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'default trace enabled', 1;
GO
RECONFIGURE
GO
```
- B.

```
sp_configure 'show advanced options', 1;
GO
RECONFIGURE;
GO
sp_configure 'common criteria compliance enabled', 1;
GO
RECONFIGURE
GO
```
- C.

```
CREATE SERVER AUDIT Srv_Audit TO FILE ( FILEPATH = '\\MAIN_SERVER\\Audit\\' ) WITH
(ON_FAILURE = SHUTDOWN);
GO
CREATE SERVER AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit
ADD (SUCCESSFUL_LOGIN_GROUP),
ADD (FAILED_LOGIN_GROUP)
WITH (STATE=ON);
GO
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);
GO
```
- D.

```
CREATE SERVER AUDIT Srv_Audit TO FILE ( FILEPATH = '\\MAIN_SERVER\\Audit\\' ) WITH
(ON_FAILURE = SHUTDOWN);
GO
CREATE DATABASE AUDIT SPECIFICATION Audit_Specification FOR SERVER AUDIT Srv_Audit
ADD (SUCCESSFUL_LOGIN_GROUP),
ADD (FAILED_LOGIN_GROUP)
WITH (STATE=ON);
GO
ALTER SERVER AUDIT Srv_Audit WITH (STATE=ON);
GO
```

Answer: C

Section: (none)

Explanation/Reference:

Auditing an instance of SQL Server or a SQL Server database involves tracking and logging events that occur on the system. You can use several methods of auditing for SQL Server, as described in Auditing (Database Engine). Beginning in SQL Server 2008 Enterprise, you can also set up automatic auditing by using SQL Server Audit.

There are several levels of auditing for SQL Server, depending on government or standards requirements for your installation. SQL Server Audit provides the tools and processes you must have to enable, store, and view audits on various server and database objects.

You can record server audit action groups per-instance, and either database audit action groups or database audit actions per database. The audit event will occur every time that the auditable action is encountered.

SQL Server Audit Components

An *audit* is the combination of several elements into a single package for a specific group of server actions or database actions. The components of SQL Server Audit combine to produce an output that is called an audit, just as a report definition combined with graphics and data elements produces a report.

SQL Server Audit uses *Extended Events* to help create an audit.

- **SQL Server Audit**

The *SQL Server Audit* object collects a single instance of server or database-level actions and groups of actions to monitor. The audit is at the SQL Server instance level. You can have multiple audits per SQL Server instance.

When you define an audit, you specify the location for the output of the results. This is the audit destination. The audit is created in a *disabled* state, and does not automatically audit any actions. After the audit is enabled, the audit destination receives data from the audit.

- **Server Audit Specification**

The *Server Audit Specification* object belongs to an audit. You can create one server audit specification per audit, because both are created at the SQL Server instance scope.

The server audit specification collects many server-level action groups raised by the Extended Events feature. You can include *audit action groups* in a server audit specification. Audit action groups are predefined groups of actions, which are the atomic events exposed by the Database Engine. These actions are sent to the audit, which records them in the target.

Here only the answer C create Server audit for logins.

QUESTION 31

You are the administrator of a SQL Server 2008 instance. There is a database named DB1 in the instance. On DB1, quite few logged operations are performed.

Now according to the requirement of the company CIO, you must validate that the database can be restored to a specific point in time.

Which action should you perform to achieve this goal?

- A. You should verify that the simple recovery model is used by the database
- B. You should verify that the full recovery model is used by the database.
- C. You should verify that the checksum page verify option is used by the database
- D. You should verify that the bulk-logged recovery model is used by the database

Answer: B

Section: (none)

Explanation/Reference:**Full recovery model**

Provides the normal database maintenance model for databases where durability of transactions is necessary.

Log backups are required. This model fully logs all transactions and retains the transaction log records until

after they are backed up. **The full recovery model allows a database to be recovered to the point of failure**, assuming that the tail of the log can be backed up after the failure. The full recovery model also supports restoring individual data pages.

QUESTION 32

You are the administrator of a SQL Server 2008 instance. There is a database named DB1 in the instance. In the Services schema, There is a table named Service.Table.

The Services.Table has to be moved from the Sales schema to a new schema named Costs.

Which Transact-SQL statement should you execute?

- A. ALTER TABLE Service.Table SWITCH TO Costs.Table1;
- B. ALTER SCHEMA Costs TRANSFER Service.Table;
- C. ALTER USER Service WITH DEFAULT_SCHEMA = Costs;
- D. ALTER AUTHORIZATION ON Service.Table1 TO Costs;

Answer: B

Section: (none)

Explanation/Reference:

ALTER SCHEMA : Transfers a securable between schemas.

ALTER SCHEMA *schema_name* TRANSFER *securable_name*

schema_name

Is the name of a schema in the current database, into which the securable will be moved. Cannot be **SYS** or **INFORMATION_SCHEMA**.

securable_name

Is the one-part or two-part name of a schema-contained securable to be moved into the schema.

ALTER SCHEMA can only be used to move securables between schemas in the same database. To change or drop a securable within a schema, use the ALTER or DROP statement specific to that securable.

QUESTION 33

You are the administrator of the company database and in charge of three SQL Server 2008 instances.

All the instances run on their independent server. The three instances are respectively named InstanceA, InstanceB, and InstanceC. Between InstanceA and InstanceB, you configure a mirroring mission-critical database.

InstanceA currently acts as the Principal and InstanceC acts as the witness.

You intend to apply a patch to both servers as soon as possible, the patch needs to restart the server.

You must make sure that the database is online on the partner that currently does not apply the patch and during this time the database does not failover to the other partner.

Which action should you perform to achieve this goal?

- A. First, you should stop the mirroring session.
Second you apply the patch to the server that runs InstanceB.
Third, you should resume the mirroring session.
Fourth, you should manually failover the mirroring session.
At last, you should apply the patch to the server that runs InstanceA.

- B. First, you should apply the patch to the server that runs InstanceB.
Second you apply the patch to the server that runs InstanceA.
- C. First, you should apply the patch to the server that runs InstanceB.
Second you failover the mirroring session manually.
At last apply the patch to the server that runs InstanceA
- D. First, you should remove the mirroring session.
Second you apply the patch to the server that runs InstanceB.
Third, you should apply the patch to the server that runs InstanceA.
At last re-establish the mirroring session.

Answer: A

Section: (none)

Explanation/Reference:

1. Status= SUSPENDED: The mirror copy of the database is not available. The principal database is running without sending any logs to the mirror server, a condition known as *running exposed*. This is the state after a failover.
2. Patch the target server
3. resume the mirrorin, in order to have the SYNCHRONIZED status
4. Make a failover from the source Instance A to InstanceB, the already patched server.
5. Apply the patch to the Instance A

QUESTION 34

You are the administrator of a SQL 2008 instance. There is an Internet Information Services application. This application will use anonymous access to access the SSAS instance.

You must make sure that the application can access the SSAS instance.

What should you do?

- A. The Security\RequireClientAuthentication server configuration should be set to False
- B. The Security\RequireClientAuthentication server configuration should be set to True.
- C. The NTLM Security Support Provider Interface (SSPI) provider should be added to the Security \SecurityPackageList server configuration.
- D. The Kerberos Security Support Provider Interface (SSPI) provider should be added to the Security \SecurityPackageList server configuration

Answer: A

Section: (none)

Explanation/Reference:

Microsoft SQL Server Analysis Services supports the security server properties listed in the following table.

To view or change these properties for an instance of Analysis Services, in SQL Server Management Studio, right-click the Analysis Services instance, and then click **Properties**.

Properties

RequireClientAuthentication

A Boolean property that indicates whether client authentication is required. The default value for this property is True, which indicates that client authentication is required.

In this case, the authentication should be anonymous, thus the property should be set to **False**

QUESTION 35

You are the administrator of a SQL Server 2008 with a named Instance01.

Instance01 contains a database which is named Dworks. The bulk-logged recovery mode is used by the Dworks database.

You logship the Dworks database through a WAN link. A scheduled job rebuilds the indexes of the Dworks database.

You find that the size of the log backups for log shipping has been enlarged by the job.

You have to reduce the size of the log backup.

Which action should you perform to achieve this goal?

- A. You should recreate the indexes.
- B. You should compress the log file backups
- C. You should make the Dworks database use the Full recovery mode
- D. You should make the Dworks database use the Simple recovery mode.

Answer: B

Section: (none)

Explanation/Reference:

Use Compression option for the backup log. This will reduce the size of the database log backups

COMPRESSION

In SQL Server 2008 Enterprise and later versions only, specifies whether backup compression is performed on this backup, overriding the server-level default.

At installation, the default behavior is no backup compression. But this default can be changed by setting the backup compression default server configuration option.

For information about viewing the current value of this option, see How to: View Server Properties (SQL Server Management Studio).

COMPRESSION

Explicitly enables backup compression.

Note:

By default, when a backup is compressed, checksums are performed to detect media corruptions.

QUESTION 36

You are the administrator of a SQL Server 2008 cluster.

According to the company requirement, the failover response of the cluster has to be tested.

The company assigns this task to you. On the cluster, you have to implement a manual failover.

Which actions should you take? (choose more than one)

- A. The contents of a shared folder on the active node should be encrypted by using Encrypting File System (EFS)
- B. You should restore a backup to the active node
- C. You should get rid of the shared array from the active node
- D. From the active node, you have to unplug the network cable(s)

Answer: CD

Section: (none)

Explanation/Reference:

To implement a manual failover on one MSCS, you have to interrupt the correct run of the hardware. To do that, you have to break one of the following things on the active node:

- Power plug
- Heartbeat / Public network cables
- Storage links (shared array)

QUESTION 37

You are the administrator of a SQL Server 2008 instance with a database named DB1. You have set the recovery model of DB1 to Full.

You deploy a new process. The process modifies 10,000 records from the Accounts table at 18:00 every day.

Any modification made by the process to the data must be reverted and database keeps online. You must make sure of this.

Which strategy should you implement?

- A. You should implement Differential backup
- B. You should implement Database snapshots
- C. You should implement Primary filegroup backup
- D. You should implement Transaction log backup

Answer: B

Section: (none)

Explanation/Reference:

A database snapshot is a read-only, static view of a database (called the *source database*). Each database snapshot is transactionally consistent with the source database at the moment of the snapshot's creation. When you create a database snapshot, the source database will typically have open transactions. Before the snapshot becomes available, the open transactions are rolled back to make the database snapshot transactionally consistent.

Clients can query a database snapshot, which makes it useful for writing reports based on the data at the time of snapshot creation. Also, if the source database later becomes damaged, you can revert the source database to the state it was in when the snapshot was created.

Reasons to take database snapshots include:

- Maintaining historical data for report generation.

Because a database snapshot provides a static view of a database, a snapshot can extend access to data from a particular point in time. For example, you can create a database snapshot at the end of a given time period (such as a financial quarter) for later reporting. You can then run end-of-period reports on the snapshot. If disk space permits, you can also maintain end-of-period snapshots indefinitely, allowing queries against the results from these periods; for example, to investigate organizational performance.

- Using a mirror database that you are maintaining for availability purposes to offload reporting.

Using database snapshots with database mirroring permits you to make the data on the mirror server accessible for reporting. Additionally, running queries on the mirror database can free up resources on the principal. For more information, see Database Mirroring and Database Snapshots.

- Safeguarding data against administrative error.
- ***Before doing major updates, such as a bulk update or a schema change, create a database snapshot on the database protects data. If you make a mistake, you can use the snapshot to recover by reverting the database to the snapshot. Reverting is potentially much faster for this purpose than restoring from a backup; however, you cannot roll forward afterward.***

QUESTION 38

You are the administrator of a SQL Server 2008 instance with a database named DB01.

The company CIO wants all the application developers can capture traces to troubleshoot the application that uses the database DB01, and they can perform this by using SQL Server Profiler.

But they must have given little permission as possible. The company CIO assigns this task to you.

Which action should you perform to achieve this goal?

- A. All the SQL Server logins of the application developers have to be added to a fixed server role.
- B. All the database users of the application developers have to be added to a fixed database role
- C. All SQL Server logins of the application developers should be given the appropriate server-level permissions.
- D. All database users of the application developers should be given the appropriate database-level permissions.

Answer: C

Section: (none)

Explanation/Reference:

SQL Server 2005 introduced a new concept to SQL Server security and permissions: securables. Securables are anything within SQL Server that can have a permission assigned. One such securable is the server.

ALTER TRACE

Grants or denies the ability to execute a server-side or SQL Server Profiler trace. Without this permission, the only logins capable of running traces are members of the **sysadmin** fixed server role.

<http://www.mssqltips.com/tip.asp?tip=1714>

QUESTION 39

You are the administrator of a SQL Server 2008 instance.

You have to perform the backup of the default trace according to the requirement of your failure recovery plan.

The default trace is contained in the subdirectory. You have to backup the subdirectory.

Which SQL Server database engine subdirectory should be backed up?

- A. DATA
- B. INSTALL
- C. LOG
- D. BINN

Answer: C

Section: (none)

Explanation/Reference:

Use the **default trace enabled** option to enable or disable the default trace log files. The default trace functionality provides a rich, persistent log of activity and changes primarily related to the configuration options.

Purpose

Default trace provides troubleshooting assistance to database administrators by ensuring that they have the log data necessary to diagnose problems the first time they occur.

Viewing

The default trace logs can be opened and examined by SQL Server Profiler or queried with Transact-SQL by using the `fn_trace_gettable` system function. SQL Server Profiler can open the default trace log files just as it does normal trace output files. **The default trace log is stored by default in the `\MSSQL\LOG` directory** using a rollover trace file. The base file name for the default trace log file is `log.trc`. In a typical installation of SQL Server, the default trace is enabled and thus becomes TraceID 1. If enabled after installation and after creating other traces, the TraceID can become a larger number.

QUESTION 40

You are the administrator of a SQL Server 2008 instance.

You notice that the application has a poor performance. On the remote SQL Server instance, you capture a workload of the remote instance to a trace table by using SQL Profiler.

You use the Database Engine Tuning Advisor to analyze the workload of the remote SQL Server instance on a local SQL Server instance.

Which action should you perform to achieve this goal?

- A. You should recapture the workload by using the data collector.
- B. You should enable the `XP_MSVER` stored procedure on the local server.
- C. You should enable the `XP_MSVER` stored procedure on the remote server.
- D. You should recapture the workload to a trace file by using SQL Profiler.

Answer: D

Section: (none)

Explanation/Reference:

QUESTION 41

You are the administrator of three SQL Server 2008 instances named Instance1, Instance2, and Instance3.

Each of the three instances runs on a separate server. A mission-critical database is mirrored between Instance1 and Instance2.

Instance3 acts as the witness. Instance1 currently acts as the Principal.

You plan to apply a patch to both servers. The patch requires a restart of the server.

You need to find out the sequence of steps necessary to ensure that the following requirements are met:

1. The patching process is completed in the shortest possible time.
2. The database is online on the partner that currently does not apply the patch.
3. The database does not failover to the other partner during this time.

What should you do?

- A. Apply the patch to the server that runs Instance2.
Apply the patch to the server that runs Instance1.
- B. Apply the patch to the server that runs Instance2.
Manually failover the mirroring session.
Apply the patch to the server that runs Instance1.
- C. Remove the mirroring session.
Apply the patch to the server that runs Instance2.
Apply the patch to the server that runs Instance1.
Re-establish the mirroring session.

- D. Suspend the mirroring session.
Apply the patch to the server that runs Instance2.
Resume the mirroring session.
Manually failover the mirroring session.
Apply the patch to the server that runs Instance1.

Answer: D

Section: (none)

Explanation/Reference: