



MCSA / MCSE for Microsoft SQL Server 2016

# Exam 70-764 Administering a SQL Database Infrastructure

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SQL 2016  
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Data Management and  
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## 70-764: Administering a SQL Database Infrastructure

Question No: 1

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

Solution: You add the DatabaseMailUserRole to Mail1 in the tempdb database.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

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

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

References:

[http://www.idevelopment.info/data/SQLServer/DBA\\_tips/Database\\_Administration/DBA\\_20.shtml](http://www.idevelopment.info/data/SQLServer/DBA_tips/Database_Administration/DBA_20.shtml)

Question No: 2

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

Solution: You add the DatabaseMailUserRole to Mail1 in the msdb database.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

Database Mail is guarded by the database role DatabaseMailUserRole in the msdb database in order to prevent anyone from sending arbitrary emails. Database users or roles must be created

in the msdb database and must also be a member of DatabaseMailUserRole in order to send emails with the exception of sysadmin who has all privileges.

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

References:

[http://www.idevelopment.info/data/SQLServer/DBA\\_tips/Database\\_Administration/DBA\\_20.shtml](http://www.idevelopment.info/data/SQLServer/DBA_tips/Database_Administration/DBA_20.shtml)

Question No: 3

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

Solution: You add the DatabaseMailUserRole to Mail1 in the master database.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

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

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

References:

[http://www.idevelopment.info/data/SQLServer/DBA\\_tips/Database\\_Administration/DBA\\_20.shtml](http://www.idevelopment.info/data/SQLServer/DBA_tips/Database_Administration/DBA_20.shtml)

Question No: 4

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

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

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

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

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

References:

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

Question No: 5

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

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

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

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

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

References:

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

Question No: 6

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

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

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

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

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

References:

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

Question No: 7

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

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

You need to optimize query performance.

Solution: You reorganize all indexes.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

You can remedy index fragmentation by either reorganizing an index or by rebuilding an index.

References:

[https://msdn.microsoft.com/en-us/library/ms189858\(v=sql.105\).aspx](https://msdn.microsoft.com/en-us/library/ms189858(v=sql.105).aspx)

Question No: 8

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

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

You need to optimize query performance.

Solution: You rebuild all indexes.

Does the solution meet the goal?

A. Yes

B. No

Answer: A

Explanation:

You can remedy index fragmentation by either reorganizing an index or by rebuilding an index.

References:

[https://msdn.microsoft.com/en-us/library/ms189858\(v=sql.105\).aspx](https://msdn.microsoft.com/en-us/library/ms189858(v=sql.105).aspx)

Question No: 9

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

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

You need to optimize query performance.

Solution: You run the DBCC CHECKDB command.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

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

References:

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

Question No: 10

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

One instance hosts a user database named HRDB. The database contains sensitive human resources data.

You need to grant an auditor permission to view the SQL Server audit logs while following the

principle of least privilege.

Which permission should you grant?

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

Answer: F

Explanation:

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

References:

[https://technet.microsoft.com/en-us/library/cc280386\(v=sql.110\).aspx](https://technet.microsoft.com/en-us/library/cc280386(v=sql.110).aspx)

Question No: 11

You manage a Microsoft SQL Server environment. You implement Transparent Data Encryption (TDE).

A user will assist in managing TDE.

You need to ensure that the user can view the TDE metadata while following the principle of least privilege.

Which permission should you grant?

- A. DDLAdmin
- B. db\_datawriter
- C. dbcreator
- D. dbo

E. View Database State

F. View Server State

G. View Definition

H. sysadmin

Answer: G

Explanation:

Viewing the metadata involved with TDE requires the VIEW DEFINITION permission on the certificate.

References:

<https://docs.microsoft.com/en-us/sql/relationaldatabases/security/encryption/transparent-data-encryption-tde>

Question No: 12

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

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

You need to grant the correct permission to the service account that backs up the HRDB database.

Which permission should you grant?

A. DDLAdmin

B. db\_datawriter

C. dbcreator

D. dbo

E. View Database State

F. View Server State

G. View Definition

H. sysadmin

Answer: G

Explanation:

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

References:

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

Question No: 13

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

You plan to delegate encryption operations to a user.

You need to grant the user permission to implement cell-level encryption while following the principle of least privilege.

Which permission should you grant?

- A. DDLAdmin
- B. db\_datawriter
- C. dbcreator
- D. dbo
- E. View Database State
- F. View ServerState
- G. View Definition
- H. sysadmin

Answer: G

Explanation:

The following permissions are necessary to perform column-level encryption, or cell-level encryption.

References:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/encryption/encrypta-column-of-data>