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#1 Big Data & Analytics Certification Guide

70-462 – ADMINISTERING MICROSOFT SQL SERVER CERTIFICATION QUESTIONS AND STUDY GUIDE

Administering Microsoft SQL Server 2012/2014 Databases (70-462)

Contents

Administering Microsoft SQL Server Certification Details

Exam Name	Administering Microsoft SQL Server 2012/2014 Databases
Exam Code	70-462
Duration	120 Minutes
Passing Percentage	700 out of 1000
Negative Marking	No Negative Marking
Partial Credit	No Partial credit
Reference Book	Training Kit (Exam 70-462): Administering Microsoft SQL Server 2012 Databases
Schedule Your exam	Administering Microsoft SQL Server 2012/2014 Databases
Sample Questions	Administering Microsoft SQL Server Certification Sample Question
Recommended Practice tool	**Administering Microsoft SQL Server Certification Practice Exam**

Administering Microsoft SQL Server Certification Syllabus for 70-462 (Study Aid)

Install and configure (20–25%)

1. Plan installation

- Evaluate installation requirements; design the installation of SQL Server and its components (drives, service accounts, etc.); plan scale-up vs. scale-out basics; plan for capacity, including if/when to shrink, grow, autogrow, and monitor growth; manage the technologies that influence SQL architecture (for example, service broker, full text, scale out, etc.); design the storage for new databases (drives, filegroups, partitioning); design database infrastructure; configure a SQL Server standby database for reporting purposes; Windows-level security and service level security; Core mode installation; benchmark a server before using it in a production environment (SQLIO, Tests on SQL Instance); choose the right hardware

2. Install SQL Server and related services

- Test connectivity; enable and disable features; install SQL Server database engine and SSIS (not SSRS and SSAS); configure an OS disk

3. Implement a migration strategy

- Restore vs detach/attach; migrate security; migrate from a previous version; migrate to new hardware; migrate systems and data from other sources

4. Configure additional SQL Server components

- Set up and configure all SQL Server components (Engine, AS, RS and SharePoint integration) in a complex and highly secure environment; configure full-text indexing; SSIS security; filestream; filetable

5. Manage SQL Server Agent

- Create, maintain, and monitor jobs; administer jobs and alerts; automate (setup, maintenance, monitoring) across multiple databases and multiple instances; send to "Manage SQL Server Agent jobs"

Maintain instances and databases (15–20%)

1. Manage and configure databases

- Design multiple file groups; database configuration and standardization: autoclose, autoshrink, recovery models; manage file space, including adding new filegroups and moving objects from one filegroup to another; implement and configure contained databases; data compression; configure TDE; partitioning; manage log file growth; DBCC

2. Configure SQL Server instances

- Configure and standardize a database: autoclose, autoshrink, recovery models; install default and named instances; configure SQL to use only certain CPUs (affinity masks, etc.); configure server level settings; configure many databases/instance, many instances/server, virtualization; configure clustered instances including MSDTC; memory allocation; database mail; configure SQL Server engine: memory, filffactor, sp_configure, default options

3. Implement a SQL Server clustered instance

- Install a cluster; manage multiple instances on a cluster; set up subnet clustering; recover from a failed cluster node

4. Manage SQL Server instances

- Install an instance; manage interaction of instances; SQL patch management; install additional instances; manage resource utilization by using Resource Governor; cycle error logs

Optimize and troubleshoot (15–20%)

1. Identify and resolve concurrency problems

- Examine deadlocking issues using the SQL server logs using trace flags; design reporting database infrastructure (replicated databases); monitor via DMV or other MS product; diagnose blocking, live locking and deadlocking; diagnose waits; performance detection with built in DMVs; know what affects performance; locate and if necessary kill processes that are blocking or claiming all resources

2. Collect and analyze troubleshooting data

- Monitor using Profiler; collect performance data by using System Monitor; collect trace data by using SQL Server Profiler; identify transactional replication problems; identify and troubleshoot data access problems; gather performance metrics; identify potential problems before they cause service interruptions; identify performance problems;, use XEvents and DMVs; create alerts on critical server condition; monitor data and server access by creating audit and other controls; identify IO vs. memory vs. CPU bottlenecks; use the Data Collector tool

3. Audit SQL Server instances

- Implement a security strategy for auditing and controlling the instance; configure an audit; configure server audits; track who modified an object; monitor elevated privileges as well as unsolicited attempts to connect; policy-based management

Manage data (20–25%)

1. Configure and maintain a back-up strategy

- Manage different backup models, including point-in-time recovery; protect customer data even if backup media is lost; perform backup/restore based on proper strategies including backup redundancy; recover from a corrupted drive; manage a multi-TB database; implement and test a database implementation and a backup strategy (multiple files for user database and tempdb, spreading database files, backup/restore); back up a SQL Server environment; back up system databases

2. Restore databases

- Restore a database secured with TDE; recover data from a damaged DB (several errors in DBCC checkdb); restore to a point in time; file group restore; page level restore

3. Implement and maintain indexes

- Inspect physical characteristics of indexes and perform index maintenance; identify fragmented indexes; identify unused indexes; implement indexes; defrag/rebuild indexes; set up a maintenance strategy for indexes and statistics; optimize indexes (full, filter index); statistics (full, filter) force or fix queue; when to rebuild vs. reorg and index; full text indexes; column store indexes

4. Import and export data

- Transfer data; bulk copy; bulk insert

Implement security (15–20%)

1. Manage logins and server roles

- Configure server security; secure the SQL Server using Windows Account / SQL Server accounts, server roles; create log in accounts; manage access to the server, SQL Server instance, and databases; create and maintain user-defined server roles; manage certificate logins

2. Manage database security

- Configure database security; database level, permissions; protect objects from being modified; auditing; encryption

3. Manage users and database roles

- Create access to server / database with least privilege; manage security roles for users and administrators; create database user accounts; contained login

4. Troubleshoot security

    - Manage certificates and keys; endpoints

Implement high availability (5–10%)

1. Implement AlwaysOn

    - Implement AlwaysOn availability groups; implement AlwaysOn failover clustering

2. Implement replication

    - Troubleshoot replication problems; identify appropriate replication strategy

Administering Microsoft SQL Server Exam (70-462) Sample Questions

- Below are the 10 sample questions which will help you be familiar with Administering Microsoft SQL Server 2012/2014 Databases (70-462) exam style and Structure.

- These questions are just for demonstration purpose, there are many scenario based question are included in **Premium Administering Microsoft SQL Server Practice Exam**

- Access to all 425+ questions is available only through premium practice exam available to members at www.analyticsexam .com

Q 1: Your database contains tables named Products and ProductsPriceLog. The Products table contains columns named ProductCode and Price. The ProductsPriceLog table contains columns named ProductCode, OldPrice, and NewPrice.

The ProductsPriceLog table stores the previous price in the OldPrice column and the new price in the NewPrice column.

You need to increase the values in the Price column of all products in the Products table by 5 percent. You also need to log the changes to the ProductsPriceLog table. Which Transact-SQL query should you use?

Options:

A. UPDATE Products SET Price = Price * 1.05 OUTPUT inserted.ProductCode, deleted.Price, inserted.Price * INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

B. UPDATE Products SET Price = Price * 1.05 INSERT INTO ProductsPriceLog (ProductCode, CldPnce, NewPrice; SELECT ProductCode, Price, Price * 1.05 FROM Products

C. UPDATE Products SET Price = Price * 1.05 OUTPUT inserted.ProductCode, deleted.Price, inserted.Price INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

D. UPDATE Products SET Price = Price * 1.05 OUTPUT inserted.ProductCode, inserted.Price, deleted.Price INTO ProductsPriceLog(ProductCode, OldPrice, NewPrice)

Q 2: Your database contains a table named SalesOrders. The table includes a DATETIME column named OrderTime that stores the date and time each order is placed. There is a non-clustered index on the OrderTime column.

The business team wants a report that displays the total number of orders placed on the current day. You need to write a query that will return the correct results in the most efficient manner. Which Transact-SQL query should you use?

Options:

A. SELECT COUNT(*) FROM SalesOrders
WHERE CONVERT(VARCHAR, OrderTime, 112) = CONVERT(VARCHAR, GETDATE(I, 112))

B. SELECT COUNT(*) FROM SalesOrders
WHERE OrderTime >= CONVERT(DATE, GETDATE())
AND OrderTime < DATEADD(DAY, CONVERT(DATE, GETDATE()))

C. SELECT COUNT(*) FROM SalesOrders WHERE OrderTime = GETDATE()

D. SELECT COUNT(*) FROM SalesOrders
WHERE OrderTime = CONVERT(DATE, GETDATE())

Q 3: You work as the Senior Database Administrator (DBA) at ABC.com. The company has a main office and 10 branch offices. Each branch office contains a single database server running Microsoft SQL Server 2012.

The main office has multiple clustered servers running Microsoft SQL Server 2012. Your role includes the management of the entire Microsoft SQL Server 2012 infrastructure. The company runs a custom application that stores data in a large Microsoft SQL Server 2012 database.

The primary database is hosted in the main office. Each branch office SQL Server hosts a copy of the database. You need to configure a solution that will replicate the entire primary database from the main office SQL Server every weekend.

What should you include in your solution?

Options:

A. Transactional Replication

B. SQL Server Availability Group

C. Log Shipping

D. Snapshot Replication

Q 4: You work as a Database Administrator (DBA) at ABC.com. The infrastructure includes servers running Microsoft SQL Server 2012. All databases are hosted on a SAN (Storage Area Network).

You need to design a database solution for a new application. You are tasked with designing a high-availability database solution.

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

Options:

A. You should include two servers and database mirroring.

B. You should include two servers and log shipping.

C. You should include two servers configure as a SQL Server Availability Group

D. You should include two servers configured as a failover cluster.

Q 5: You want to simulate read, write, checkpoint, backup, sort, and read-ahead activities for your organization's SQL Server 2012 deployment. Which of the following tools would you use to accomplish this goal?
Options:

A. SQLIO

B. chkdsk

C. SQLIOStress

D. SQLIOSim

Q 6: You want to reproduce the same SQL Server 2012 installation configuration across five servers. Which of the following files will you generate by using SQL Server Setup to accomplish this goal?

Options:

A. Setup.ini
B. Configuration.xml
C. ConfigurationFile.ini
D. Setup.xml

Q 7: You want to remove SQL Server Integration Services from a server running the Windows Server 2008 R2 operating system that also has the Database Engine and SQL Server Analysis Services installed. Which of the following tools can you use to accomplish this goal?
Options:

A. SQL Server Configuration Manager

B. SQL Server Installation Center

C. SQL Server Management Studio

D. Add/Remove Programs in Control Panel

Q 8: You use Microsoft SQL Server 2012 to write code for a transaction that contains several statements. There is high contention between readers and writers on several tables used by your transaction.

You need to minimize the use of the tempdb space. You also need to prevent reading queries from blocking writing queries. Which isolation level should you use?
Options:

A. READ COMMITTED SNAPSHOT

B. REPEATABLE READ

C. SNAPSHOT

D. SERIALIZABLE

Q 9: You use Microsoft SQL Server 2012 to develop a database application. You need to implement a computed column that references a lookup table by using an INNER JOIN against another table. What should you do?

Options:

A. Add a default constraint to the computed column that implements hard-coded values.

B. Create a BEFORE trigger that maintains the state of the computed column.

C. Reference a user-defined function within the computed column.

D. Add a default constraint to the computed column that implements hard-coded CASE statements.

Q 10: You use Microsoft SQL Server 2012 to develop a database application. You need to create an object that meets the following requirements:

--> Takes an input variable
--> Returns a table of values
--> Cannot be referenced within a view

Which object should you use?
Options:

A. Scalar-valued function

B. User-defined data type

C. Inline function

D. Stored procedure

Answers:

Question: 1	Answer:C	Question: 2	Answer:B
Question: 3	Answer:D	Question: 4	Answer:D
Question: 5	Answer:D	Question: 6	Answer:C
Question: 7	Answer:D	Question: 8	Answer:A
Question: 9	Answer:C	Question: 10	Answer:D