



Microsoft

Exam Questions DP-300

Administering Relational Databases on Microsoft Azure (beta)

NEW QUESTION 1

- (Exam Topic 5)

You have an Azure SQL database named db1 that contains an Azure Active Directory (Azure AD) user named user1. You need to test impersonation of user1 in db1 by running aSELECTstatement and returning to the original execution context. How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area. NOTE:Each correct selection is worth one point.

EXECUTE AS

▼

CALLER

LOGIN

OWNER

USER

 = 'user1@contoso.com'

GO

SELECT SUSER_SNAME ()

▼

REVERT

REVOKE

ROLLBACK

GO

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface Description automatically generated
Reference:
<https://docs.microsoft.com/en-us/sql/t-sql/statements/execute-as-transact-sql?view=sql-server-ver15> <https://docs.microsoft.com/en-us/sql/t-sql/functions/suser-sname-transact-sql?view=sql-server-ver15>

NEW QUESTION 2

- (Exam Topic 5)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution. After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen. You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Table1. You have files that are ingested and loaded into an Azure Data Lake Storage Gen2 container named container1. You plan to insert data from the files into Table1 and transform the data. Each row of data in the files will produce one row in the serving layer of Table1. You need to ensure that when the source data files are loaded to container1, the DateTime is stored as an additional column in Table1. Solution: You use a dedicated SQL pool to create an external table that has an additional DateTime column. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead use a serverless SQL pool to create an external table with the extra column.
Note: In dedicated SQL pools you can only use Parquet native external tables. Native external tables are generally available in serverless SQL pools.
Reference:
<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/create-use-external-tables>

NEW QUESTION 3

- (Exam Topic 5)

You create a new Azure SQL managed instance named SQL1 and enable Database Mail extended stored procedures. You need to ensure that SOL Server Agent jobs running on SQL 1 can notify administrators when a failure occurs. Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Enable pager notifications upon failure.

Create a profile named application_dbmail_profile.

Create a Database Mail account.

Create a profile named AzureManagedInstance_dbmail_profile.

Enable email notifications upon failure.

Answer Area

1

2

3

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Actions

Enable pager notifications upon failure.

Create a profile named application_dbmail_profile.

Create a Database Mail account.

Create a profile named AzureManagedInstance_dbmail_profile.

Enable email notifications upon failure.

Answer Area

1

2

3

Create a Database Mail account.

Create a profile named AzureManagedInstance_dbmail_profile.

Enable email notifications upon failure.

NEW QUESTION 4

- (Exam Topic 5)

You have an Azure subscription that is linked to an Azure AD tenant named contoso.com. The subscription contains an Azure SQL database named SQL 1 and an Azure web named app1. App1 has the managed identity feature enabled. You need to create a new database user for app1.

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

NOTE: Each correct selection is worth one point.

CREATE USER

[App1]
[Contoso\app1]
[App1@contoso.com]

FROM

login
Windows
EXTERNAL PROVIDER

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

<https://learn.microsoft.com/en-us/azure/app-service/tutorial-connect-msi-sql-database?tabs=windowsclient%2Ce>

NEW QUESTION 5

- (Exam Topic 5)

You have an Azure subscription that contains an instance of SQL Server on Azure Virtual Machines. The virtual machine hosts a database named DB1. You need to monitor DB1 by using Extended Events. The solution must meet the following requirements:

- Capture raw event data and store the data in Azure Storage.
- Minimize the performance impact of capturing extended events.

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

NOTE: Each correct selection is worth one point.

Answer Area

```
CREATE EVENT SESSION session1 ON DATABASE
ADD EVENT sqlserver.sql_statement_starting
(
    ACTION (sqlserver.sql_text)
    WHERE statement LIKE 'UPDATE gmTabEmployee%'
)
ADD TARGET
package0.
    event_file
    event_stream
    ring_buffer
)
SET filename = 'https://gmstorageaccountxevent.blob.core.windows.net/gmcontainerxevent/anyfilenamexel242b.xel'
)
WITH
    (MAX_MEMORY = 10 MB,
    EVENT_RETENTION_MODE=
    MAX_DISPATCH_LATENCY = 3 SECONDS
    ALLOW_MULTIPLE_EVENT_LOSS
    ALLOW_SINGLE_EVENT_LOSS
    NO_EVENT_LOSS
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

```
CREATE EVENT SESSION session1 ON DATABASE
ADD EVENT sqlserver.sql_statement_starting
(
    ACTION (sqlserver.sql_text)
    WHERE statement LIKE 'UPDATE gmTabEmployee%'
)
ADD TARGET
package0.
    event_file
    event_stream
    ring_buffer
)
SET filename = 'https://gmstorageaccountxevent.blob.core.windows.net/gmcontainerxevent/anyfilenamexel242b.xel'
)
WITH
    (MAX_MEMORY = 10 MB,
    EVENT_RETENTION_MODE=
    MAX_DISPATCH_LATENCY = 3 SECONDS
    ALLOW_MULTIPLE_EVENT_LOSS
    ALLOW_SINGLE_EVENT_LOSS
    NO_EVENT_LOSS
```

NEW QUESTION 6

- (Exam Topic 5)

You are designing a dimension table in an Azure Synapse Analytics dedicated SQL pool.

You need to create a surrogate key for the table. The solution must provide the fastest query performance. What should you use for the surrogate key?

- A. an IDENTITY column
- B. a GUID column
- C. a sequence object

Answer: A

Explanation:

Dedicated SQL pool supports many, but not all, of the table features offered by other databases. Surrogate keys are not supported. Implement it with an Identity column.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tablesoverview>

NEW QUESTION 7

- (Exam Topic 5)

You have an Azure SQL database named D61.

You need to identify how much unused space in megabytes was allocated to DB1.

How should you complete the Transact-SQL query? To answer select the appropriate options m the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

SELECT SUM(size/

FROM sys.databases

128.0

16.0

128.0

512.0

- CAST(FILEPROPERTY(name, 'SpaceUsed') AS int)/128.0) AS DatabaseDataSpaceAllocatedUnusedInMB

FROM sys.database_files

GROUP BY sys.resource_stats

HAVING t.sys.dm_db_resource_stats

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

SELECT SUM(size/

FROM sys.databases

128.0

16.0

128.0

512.0

- CAST(FILEPROPERTY(name, 'SpaceUsed') AS int)/128.0) AS DatabaseDataSpaceAllocatedUnusedInMB

FROM sys.database_files

GROUP BY sys.resource_stats

HAVING t.sys.dm_db_resource_stats

NEW QUESTION 8

- (Exam Topic 5)

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains a user named user1@contoso.com and an Azure SQL managed instance named SQLMI1.

You need to ensure that user1@contoso.com can create logins in SQLMI1 that map to Azure AD service principals.

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

Actions

Run CREATE LOGIN user1@contoso.com FROM EXTERNAL PROVIDER on the master database.

Run ALTER SERVER ROLE securityadmin ADD MEMBER user1@contoso.com.

Create a managed identity for SQLMI1.

Grant SQLMI1 read access to Azure AD.

Run CREATE USER user1@contoso.com FROM LOGIN user1@contoso.com.

Answer Area

⏪

⏩

⏴

⏵

- A. Mastered
- B. Not Mastered

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Answer: A

Explanation:

Text Description automatically generated with medium confidence

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/aad-security-configure-tutorial>

NEW QUESTION 9

- (Exam Topic 5)

You plan to develop a dataset named Purchases by using Azure Databricks. Purchases will contain the following columns:

- > ProductID
- > ItemPrice
- > LineTotal
- > Quantity
- > StoreID
- > Minute
- > Month
- > Hour
- > Year
- > Day

You need to store the data to support hourly incremental load pipelines that will vary for each StoreID. The solution must minimize storage costs.

How should you complete the code? To answer, select the appropriate options in the answer area.

NOTE:Each correct selection is worth one point.

df.write

.bucketBy

.partitionBy

.range

.sortBy

("")

("StoreID", "Hour")

("StoreID", "Year", "Month", "Day", "Hour")

("Year", "Month", "Day", "Hour", "StoreID")

.mode("append")

.csv("/Purchases")

.json("/Purchases")

.parquet("/Purchases")

.saveAsTable("/Purchases")

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: .partitionBy Example:

df.write.partitionBy("y","m","d") mode(SaveMode.Append) parquet("/data/hive/warehouse/db_name.db/" + tableName) Box 2: ("Year","Month","Day","Hour","StoreID")

Box 3: .parquet("/Purchases") Reference:

<https://intellipaat.com/community/11744/how-to-partition-and-write-dataframe-in-spark-without-deleting-partiti>

NEW QUESTION 10

- (Exam Topic 5)

You need to migrate an on-premises Microsoft SQL Server database to Azure SQL Database. The solution must minimize downtime.

What should you do?

- A. Configure Transaction Log Shipping.
- B. Implement Always On availability groups.
- C. Configure transactional replication.
- D. Import a BACPAC.

Answer: C

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/migrate-to-database-from-sql-server#method-1-migra>

NEW QUESTION 10

- (Exam Topic 5)

You have an on-premises multi-tier application named App1 that includes a web tier, an application tier, and a Microsoft SQL Server tier. All the tiers run on Hyper-V virtual machines.

Your new disaster recovery plan requires that all business-critical applications can be recovered to Azure. You need to recommend a solution to fail over the database tier of App1 to Azure. The solution must provide the ability to test failover to Azure without affecting the current environment.

What should you include in the recommendation?

- A. Azure Backup
- B. Azure Information Protection
- C. Windows Server Failover Cluster
- D. Azure Site Recovery

Answer: D

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-test-failover-to-azure>

NEW QUESTION 12

- (Exam Topic 5)

You have an Azure SQL Database server named sqlsrv1 that hosts 10 Azure SQL databases. The databases perform slower than expected.

You need to identify whether the performance issue relates to the use of tempdb on sqlsrv1. What should you do?

- A. Run Query Store-based queries
- B. Review information provided by SQL Server Profiler-based traces
- C. Review information provided by Query Performance Insight
- D. Run dynamic management view-based queries

Answer: D

Explanation:

The diagnostics log outputs tempDB contention details. You can use the information as the starting point for troubleshooting.

You can use the Intelligent Insights performance diagnostics log of Azure SQL Database to troubleshoot performance issues.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/intelligent-insights-troubleshoot-performance#tempdb> <https://docs.microsoft.com/en-us/azure/azure-sql/database/intelligent-insights-use-diagnostics-log>

NEW QUESTION 17

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that runs Windows Server 2019. The virtual machine has 4 vCPUs and 28 GB of memory.

You scale up the virtual machine to 16 vCPUSs and 64 GB of memory. You need to provide the lowest latency for tempdb.

What is the total number of data files that tempdb should contain?

- A. 2
- B. 4
- C. 8
- D. 64

Answer: D

Explanation:

The number of files depends on the number of (logical) processors on the machine. As a general rule, if the number of logical processors is less than or equal to eight, use the same number of data files as logical

processors. If the number of logical processors is greater than eight, use eight data files and then if contention continues, increase the number of data files by multiples of 4 until the contention is reduced to acceptable levels or make changes to the workload/code.

Reference:

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

NEW QUESTION 21

- (Exam Topic 5)

You have an on-premises datacenter that contains a 14-TB Microsoft SQL Server database.

You plan to create an Azure SQL managed instance and migrate the on-premises database to the new instance. Which three service tiers support the SQL managed instance? Each correct answer presents a complete

solution. NOTE: Each correct selection is worth one point.

- A. General Purpose Standard
- B. Business Critical Premium
- C. Business Critical Memory Optimized Premium
- D. General Purpose Premium
- E. Business Critical Standard

Answer: BCD

NEW QUESTION 23

- (Exam Topic 5)

You have an Azure SQL Database managed instance named SQLMI1. A Microsoft SQL Server Agent job runs on SQLMI1.

You need to ensure that an automatic email notification is sent once the job completes. What should you include in the solution?

- A. From SQL Server Configuration Manager (SSMS), enable SQL Server Agent
- B. From SQL Server Management Studio (SSMS), runsp_set_sqlagent_properties

- C. From SQL Server Management Studio (SSMS), create a Database Mail profile
D. From the Azure portal, create an Azure Monitor action group that has an Email/SMS/Push/Voice action

Answer: C

Explanation:

To send a notification in response to an alert, you must first configure SQL Server Agent to send mail. Using SQL Server Management Studio; to configure SQL Server Agent to use Database Mail:

- In Object Explorer, expand a SQL Server instance.
- Right-click SQL Server Agent, and then click Properties.
- Click Alert System.
- Select Enable Mail Profile.
- In the Mail system list, select Database Mail.
- In the Mail profile list, select a mail profile for Database Mail.
- Restart SQL Server Agent.

Note: Prerequisites include:

- Enable Database Mail.
- Create a Database Mail account for the SQL Server Agent service account to use.
- Create a Database Mail profile for the SQL Server Agent service account to use and add the user to the DatabaseMailUserRole in the msdb database.
- Set the profile as the default profile for the msdb database. Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/database-mail/configure-sql-server-agent-mail-to-use-d>

NEW QUESTION 26

- (Exam Topic 5)

You have an Azure SQL Database managed instance. The instance starts experiencing performance issues.

You need to identify which query is causing the issue and retrieve the execution plan for the query. The solution must minimize administrative effort.

What should you use?

- A. the Azure portal
B. Extended Events
C. Query Store
D. dynamic management views

Answer: D

Explanation:

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/monitoring-performance-by-using-the-qu>

NEW QUESTION 29

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine that contains a database named DB1. DB1 is 30 TB and has a 1-GB daily rate of change.

You back up the database by using a Microsoft SQL Server Agent job that runs Transact-SQL commands. You perform a weekly full backup on Sunday, daily differential backups at 01:00, and transaction log backups every five minutes.

The database fails on Wednesday at 10:00.

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

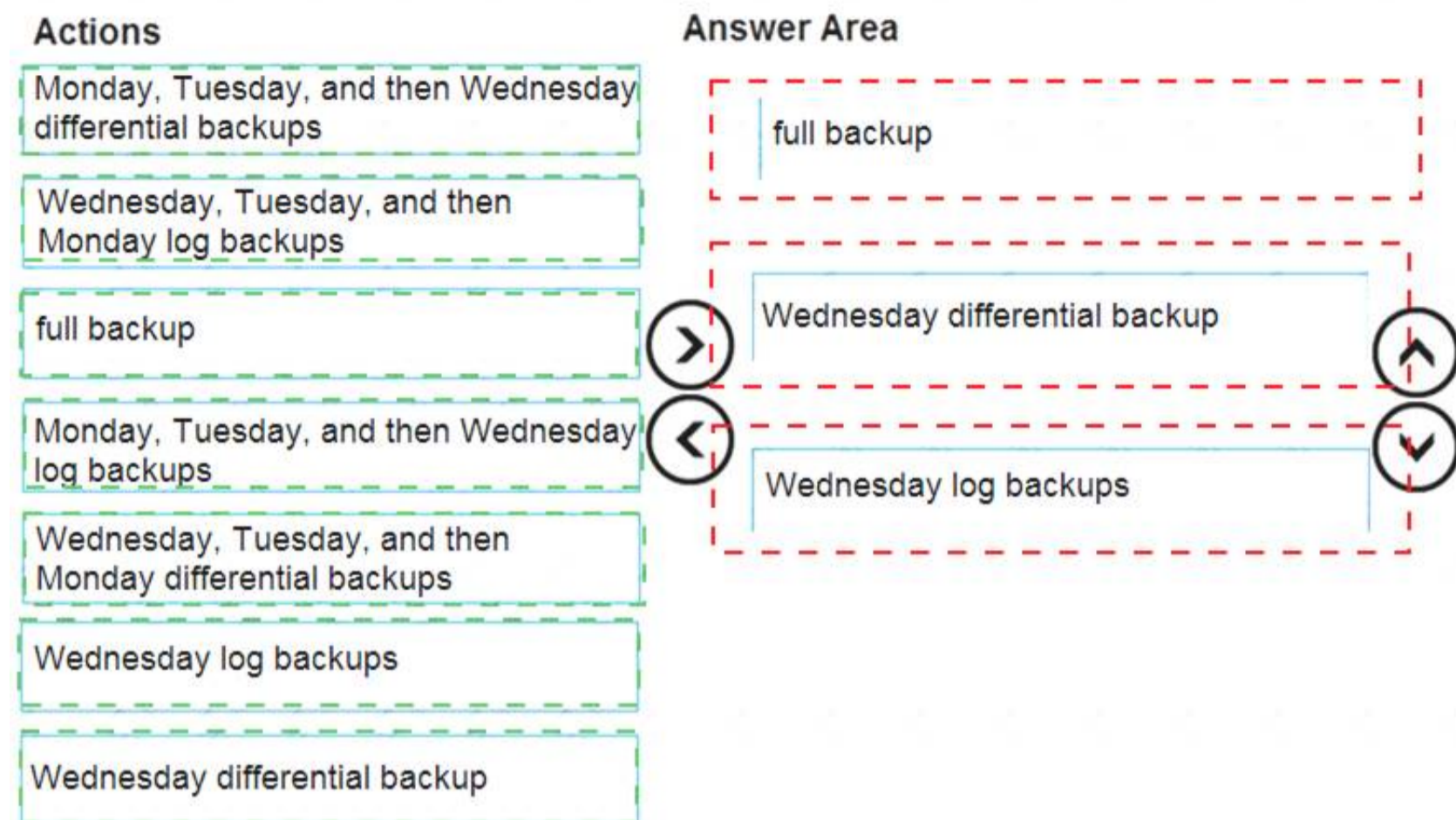
Actions	Answer Area
Monday, Tuesday, and then Wednesday differential backups	
Wednesday, Tuesday, and then Monday log backups	
full backup	
Monday, Tuesday, and then Wednesday log backups	
Wednesday, Tuesday, and then Monday differential backups	
Wednesday log backups	
Wednesday differential backup	

Navigation buttons: Right arrow, Left arrow, Up arrow, Down arrow

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 31

- (Exam Topic 5)

You manage 100 Azure SQL managed instances located across 10 Azure regions.

You need to receive voice message notifications when a maintenance event affects any of the 10 regions. The solution must minimize administrative effort. What should you do?

- A. From the Azure portal, create a service health alert.
 B. From the Azure portal, create an Azure Advisor operational excellence alert.
 C. From Microsoft SQL Server Management Studio (SSMS), configure a SQL Server agent job.
 D. From the Azure portal, configure an activity log alert.

Answer: C

NEW QUESTION 32

- (Exam Topic 5)

You have an Azure SQL database named db1.

You need to retrieve the resource usage of db1 from the last week.

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

NOTE: Each correct selection is worth one point.

SELECT *

FROM

sys.dm_db_resource_stats
sys.dm_exec_requests
sys.dm_user_db_resource_governance
sys.resource_stats

WHERE database_name = 'db1' AND

start_time >

DATEADD
DATEDIFF
DATEPART
TODATETIMEOFFSET

(day, -7, GETDATE())

ORDER BY start_time DESC;

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: sys.resource_stats

sys.resource_stats returns CPU usage and storage data for an Azure SQL Database. It has database_name and start_time columns.

Box 2: DateAdd

The following example returns all databases that are averaging at least 80% of compute utilization over the last one week.

```
DECLARE @s datetime; DECLARE @e datetime;
```

```
SET @s= DateAdd(d,-7,GetUTCDate()); SET @e= GETUTCDATE();
```

```
SELECT database_name, AVG(avg_cpu_percent) AS Average_Compute_Utilization FROM sys.resource_stats
```

```
WHERE start_time BETWEEN @s AND @e GROUP BY database_name
```

```
HAVING AVG(avg_cpu_percent) >= 80
```

 Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-catalog-views/sys-resource-stats-azure-sql-data>

NEW QUESTION 37

- (Exam Topic 5)

You plan to build a structured streaming solution in Azure Databricks. The solution will count new events in five-minute intervals and report only events that arrive during the interval.

The output will be sent to a Delta Lake table. Which output mode should you use?

- A. complete
- B. append
- C. update

Answer: A

Explanation:

Complete mode: You can use Structured Streaming to replace the entire table with every batch.

Reference:

<https://docs.databricks.com/delta/delta-streaming.html>

NEW QUESTION 40

- (Exam Topic 5)

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

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

You have SQL Server 2019 on an Azure virtual machine.

You are troubleshooting performance issues for a query in a SQL Server instance.

To gather more information, you query sys.dm_exec_requests and discover that the wait type is PAGELATCH_UP and the wait_resource is 2:3:905856.

You need to improve system performance. Solution: You create additional tempdb files. Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Reference:

<https://docs.microsoft.com/en-US/troubleshoot/sql/performance/recommendations-reduce-allocation-contention>

NEW QUESTION 45

- (Exam Topic 5)

You have an Azure SQL database named DB1.

You have a table named Table1 that has 20 columns of type CHAR(400). Row compression for Table1 is enabled.

During a database audit, you discover that none of the fields contain more than 150 characters. You need to ensure that you can apply page compression to Table1.

What should you do?

- A. Configure the columns as sparse.
- B. Change the column type to NVARCHAR(MAX).
- C. Change the column type to VARCHAR(MAX).
- D. Change the column type to VARCHAR(200).

Answer: D

Explanation:

Reference:

<https://www.sqlshack.com/sql-varchar-data-type-deep-dive/> <https://36chambers.wordpress.com/2020/06/18/nvarchar-everywhere-a-thought-experiment/>

NEW QUESTION 49

- (Exam Topic 5)

You have a new Azure SQL database named DB1 on an Azure SQL server named AzSQL1. The only user who was created is the server administrator.

You need to create a contained database user in DB1 who will use Azure Active Directory (Azure AD) for authentication.

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

Actions

Answer Area

Connect to DB1 by using the Active Directory admin account.

Create a user by using the FROM EXTERNAL PROVIDER clause.

Connect to DB1 by using the server administrator account.

Set the Active Directory Admin for AzSQL1.

From the Azure portal, assign the SQL DB Contributor role to the user.

Create a login in the master database.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: Set up the Active Directory Admin for AzSQL1. Step 2: Connect to DB1 by using the server administrator.

Sign into your managed instance with an Azure AD login granted with the sysadmin role. Step 3: Create a user by using the FROM EXTERNAL PROVIDER clause.

FROM EXTERNAL PROVIDER is available for creating server-level Azure AD logins in SQL Database managed instance. Azure AD logins allow database-level Azure AD principals to be mapped to server-level Azure AD logins. To create an Azure AD user from an Azure AD login use the following syntax:

CREATE USER [AAD_principal] FROM LOGIN [Azure AD login] Reference:

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

NEW QUESTION 53

- (Exam Topic 5)

You have a version-8.0 Azure Database for MySQL database.

You need to identify which database queries consume the most resources. Which tool should you use?

- A. Query Store
- B. Metrics
- C. Query Performance Insight
- D. Alerts

Answer: A

Explanation:

The Query Store feature in Azure Database for MySQL provides a way to track query performance over time. Query Store simplifies performance troubleshooting by helping you quickly find the longest running and most resource-intensive queries. Query Store automatically captures a history of queries and runtime statistics, and it retains them for your review. It separates data by time windows so that you can see database usage patterns. Data for all users, databases, and queries is stored in the mysql schema database in the Azure Database for MySQL instance. Reference:

<https://docs.microsoft.com/en-us/azure/mysql/concepts-query-store>

NEW QUESTION 55

- (Exam Topic 5)

You have an Azure SQL database named DB1 in the General Purpose service tier. You need to monitor DB1 by using SQL insights.

What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

To collect monitoring data, use:

	▼
A virtual machine	
An Azure function	
The Azure Monitor agent	

To store monitoring data, create:

	▼
A Log Analytics workspace	
An Azure SQL database	
An Azure Storage account	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

To collect monitoring data, use:

	▼
A virtual machine	
An Azure function	
The Azure Monitor agent	

To store monitoring data, create:

	▼
A Log Analytics workspace	
An Azure SQL database	
An Azure Storage account	

NEW QUESTION 60

- (Exam Topic 5)

You have an Azure subscription that contains a resource group named RG1. RG1 contains an instance of SQL Server on Azure Virtual Machines named SQL. You need to use PowerShell to enable and configure automated patching for SQL. The solution must include both SQL Server and Windows security updates. How should you complete the command? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

```
$AutoPatchingConfig = New-AzVMSqlServerAutoPatchingConfig -Enable
- DayOfWeek "Sunday" -MaintenanceWindowStartingHour 2
-MaintenanceWindowDuration 120 -PatchCategory "Important"
```

```
Get-AzVM -ResourceGroupName "RG1" -Name "SQL" |
```

Set-AzVMExtension
Get-AzVMSqlServerExtension
Set-AzVMExtension
Set-AzVMSqlServerExtension

```
-AutoPatchingSettings $AutoPatchingConfig | Update-AzVM
```

-SQLManagementType	-Lightweight
	-Full
	-Lightweight
	-NoAgent

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

```
$AutoPatchingConfig = New-AzVMSqlServerAutoPatchingConfig -Enable
-DayOfWeek "Sunday" -MaintenanceWindowStartingHour 2
-MaintenanceWindowDuration 120 -PatchCategory "Important"
```

```
Get-AzVM -ResourceGroupName "RG1" -Name "SQ1" |
```



```
-AutoPatchingSettings $AutoPatchingConfig | Update-AzVM
```

```
-SQLManagementType
```



NEW QUESTION 65

- (Exam Topic 5)

You have a single availability set that contains two SQL Server on Azure Virtual Machines instances.

The instances were deployed by using an Azure Marketplace SQL Server 2019 Enterprise image that has the latest cumulative updates applied. The instances are configured as the nodes of a failover cluster instance (FCI) named FCI1.

You need to ensure that client applications can connect to FCI1. The solution must meet the following requirements:

- Provide an availability SLA
- Minimize costs.

What should you create?

- A. a virtual network name (VNN) resource
- B. a Basic Azure Load Balancer
- C. a distributed network name (DNN) resource
- D. an Azure Standard Load Balancer

Answer: C

NEW QUESTION 69

- (Exam Topic 5)

You have an Azure subscription that contains a SQL Server on Azure Virtual Machines instance named SQLVMI. SQLVMI hosts a database named OBI.

You need to retrieve query plans from the Query Store on DB1. What should you do first?

- A. On SQLVM1, install the SQL Server IaaS Agent extension.
- B. From Microsoft SQL Server Management Studio, modify the properties of the SQL Server instance.
- C. From Microsoft SQL Server Management Studio, modify the properties of DB 1.
- D. On SQLVM1, install the Azure Monitor agent for Windows.

Answer: B

NEW QUESTION 74

- (Exam Topic 5)

You have an Azure subscription that contains a storage account named databasebackups. You have an Azure SQL managed instance named DB1.

You need to back up DB1 to databasebackups.

How should you complete the commands? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

CREATE CREDENTIAL

[https://databasebackups.blob.core.windows.net/Backups]

WITH IDENTITY =

'SHARED ACCESS SIGNATURE'

'DatabaseBackups'

'KeyVault1'

'SHARED ACCESS SIGNATURE'

SECRET = 'sp=r&st=2023-02-02T19:23:08Z&se=2033-02-02T19:30:08Z&spr=https&sv=2021-06-08&sr=b&sig=B%2FxEYQi0C%4BqyYCeqlwHSz2QpRI%2FKcg3ZABz78J2kix3JZjk%3D'

BACKUP DATABASE DB1

TO URL =

'https://databasebackups.blob.core.windows.net/Backups/db1.bak'

WITH

COPY_ONLY

CHECKSUM

COMPRESSION

COPY_ONLY

DIFFERENTIAL

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Answer Area

CREATE CREDENTIAL

[https://databasebackups.blob.core.windows.net/Backups]

WITH IDENTITY =

'SHARED ACCESS SIGNATURE'

'DatabaseBackups'

'KeyVault1'

'SHARED ACCESS SIGNATURE'

SECRET = 'sp=r&st=2023-02-02T19:23:08Z&se=2033-02-02T19:30:08Z&spr=https&sv=2021-06-08&sr=b&sig=B%2FxEYQi0C%4BqyYCeqlwHSz2QpRI%2FKcg3ZABz78J2kix3JZjk%3D'

BACKUP DATABASE DB1

TO URL =

'https://databasebackups.blob.core.windows.net/Backups/db1.bak'

WITH

COPY_ONLY

CHECKSUM

COMPRESSION

COPY_ONLY

DIFFERENTIAL

NEW QUESTION 77

- (Exam Topic 5)

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

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

You have an Azure Synapse Analytics dedicated SQL pool that contains a table named Table1. You have files that are ingested and loaded into an Azure Data Lake Storage Gen2 container named container1.

You plan to insert data from the files into Table1 and transform the data. Each row of data in the files will produce one row in the serving layer of Table1.

You need to ensure that when the source data files are loaded to container1, the DateTime is stored as an additional column in Table1.

Solution: You use an Azure Synapse Analytics serverless SQL pool to create an external table that has an additional DateTime column.

Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

In dedicated SQL pools you can only use Parquet native external tables. Native external tables are generally available in serverless SQL pools.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/create-use-external-tables>

NEW QUESTION 79

- (Exam Topic 5)

You have the following Azure Data Factory pipelines:

- > Ingest Data from System1
- > Ingest Data from System2
- > Populate Dimensions
- > Populate Facts

Ingest Data from System1 and Ingest Data from System2 have no dependencies. Populate Dimensions must execute after Ingest Data from System1 and Ingest Data from System2. Populate Facts must execute after the Populate Dimensions pipeline. All the pipelines must execute every eight hours.

What should you do to schedule the pipelines for execution?

- A. Add a schedule trigger to all four pipelines.
- B. Add an event trigger to all four pipelines.
- C. Create a parent pipeline that contains the four pipelines and use an event trigger.
- D. Create a parent pipeline that contains the four pipelines and use a schedule trigger.

Answer: D

Explanation:

Reference:

<https://www.mssqltips.com/sqlservertip/6137/azure-data-factory-control-flow-activities-overview/>

NEW QUESTION 80

- (Exam Topic 5)

You have SQL Server 2019 on an Azure virtual machine that contains an SSISDB database. A recent failure causes the master database to be lost.

You discover that all Microsoft SQL Server integration Services (SSIS) packages fail to run on the virtual machine.

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

Actions

Add a certificate to an Azure key vault

Enable Transparent Data Encryption (TDE)

Encrypt a copy of the master key by using the service master key

Turn on the TRUSTWORTHY property and the CLR property

Attach the SSISDB database

Open the master key for the SSISDB database

Answer Area

>

<

↑

↓

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Step 1: Attach the SSISDB database

Step 2: Turn on the TRUSTWORTHY property and the CLR property

If you are restoring the SSISDB database to an SQL Server instance where the SSISDB catalog was never created, enable common language runtime (clr)

Step 3: Open the master key for the SSISDB database

Restore the master key by this method if you have the original password that was used to create SSISDB.

open master key decryption by password = 'LS1Setup!' --'Password used when creating SSISDB' Alter Master Key Add encryption by Service Master Key

Step 4: Encrypt a copy of the mater key by using the service master key Reference:

https://docs.microsoft.com/en-us/sql/integration-services/backup-restore-and-move-the-ssis-catalog

NEW QUESTION 84

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database named SQLDb1. SQLDb1 contains a table named Table1. You plan to deploy an Azure web app named webapp1 that will export rows in Table1 that have changed. You need to ensure that webapp1 can identify the changes to Table1. The solution must meet the following requirements:

- Minimize compute times.
- Minimize storage.

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

Actions

From webapp1, connect to SQLDb1, obtain the initial dataset, and run the CHANGETABLE() function.

Connect to SQLDb1 and run the following Transact-SQL statement.

ALTER DATABASE SQLDB1 SET CHANGE_TRACKING = ON

From webapp1, connect to SQLDb1, obtain the initial dataset, and run the CHANGE_TRACKING_CURRENT_VERSION() function.

Connect to SQLDb1 and run the following Transact-SQL statement.

EXEC sys.sp_cdc_enable_table

Connect to SQLDb1 and run the following Transact-SQL statement.

EXEC sys.sp_cdc_enable_db

Connect to SQLDb1 and run the following Transact-SQL statement.

ALTER TABLE dbo.Table1 ENABLE CHANGE_TRACKING

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

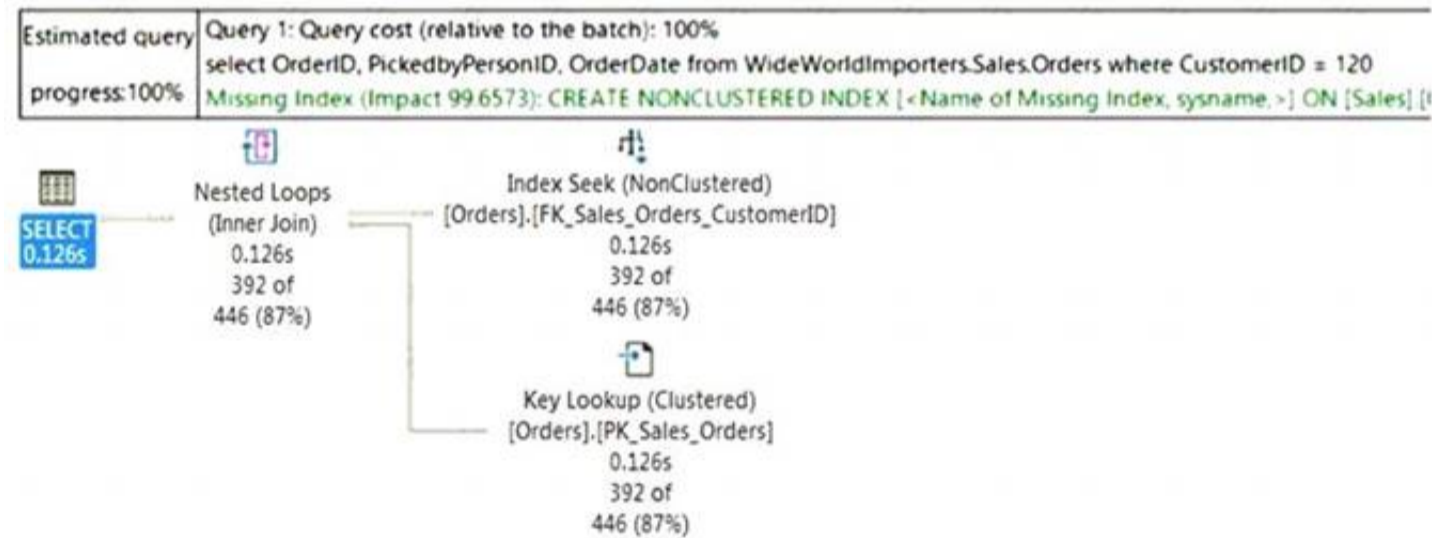
Explanation:

Graphical user interface, text, application Description automatically generated

NEW QUESTION 86

- (Exam Topic 5)

You have an Azure SQL database.
You are reviewing a slow performing query as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE:Each correct selection is worth one point.

The exhibit shows [answer choice]

an actual execution plan

an estimated execution plan

Live Query Statistics

The [answer choice] operator in the execution plan indicates that the query would benefit from performance tuning.

Index Seek

Key Lookup

Nested Loops

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, email Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/live-query-statistics?view=sql-server-ver>

NEW QUESTION 90

- (Exam Topic 5)

You are building a database backup solution for a SQL Server database hosted on an Azure virtual machine. In the event of an Azure regional outage, you need to be able to restore the database backups. The solution must minimize costs.

Which type of storage accounts should you use for the backups?

- A. locally-redundant storage (LRS)
- B. read-access geo-redundant storage (RA-GRS)
- C. zone-redundant storage (ZRS)
- D. geo-redundant storage

Answer: B

Explanation:

Geo-redundant storage (with GRS or GZRS) replicates your data to another physical location in the secondary region to protect against regional outages.

However, that data is available to be read only if the customer or Microsoft initiates a failover from the primary to secondary region. When you enable read access to the secondary region, your data is available to be read if the primary region becomes unavailable. For read access to the secondary region, enable read-access geo-redundant storage (RA-GRS) or read-access geo-zone-redundant storage (RA-GZRS).

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

NEW QUESTION 95

- (Exam Topic 5)

You have a new Azure subscription.

You create an Azure SQL Database instance named DB1 on an Azure SQL Database server named Server1. You need to ensure that users can connect to DB1 in the event of an Azure regional outage. In the event of an outage, applications that connect to DB1 must be able to connect without having to update the connection strings.

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

NOTE: Each correct selection is worth one point.

- A. From the properties of DB1, configure geo-replication.
- B. From the properties of Server1 add a failover group.
- C. Create a new Azure SQL Database server named Server2.
- D. From the properties of Server1 configure retention for DB1
- E. Create a new Azure SQL Database instance named DB2.

Answer: BC

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview?tabs=azure-powershell> <https://docs.microsoft.com/en-us/azure/azure-sql/database/failover-group-add-single-database-tutorial?tabs=azur>

NEW QUESTION 98

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database named SQL1. SQL1 is in an Azure region that does not support availability zones.

You need to ensure that you have a secondary replica of SQL1 in the same region. What should you use?

- A. log shipping
- B. auto-failover groups
- C. active geo-replication
- D. Microsoft SQL Server failover clusters

Answer: C

NEW QUESTION 101

- (Exam Topic 5)

You have an Azure subscription that contains a logical SQL server. The server hosts two databases named db1 and db2 and an Azure AD service principal named appl.

You need to ensure that appl can access db1. The solution must use the principle of least privilege. How should you complete the Transact-SQL statement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

CREATE ▼ [app1] ▼

CREDENTIAL
LOGIN
USER

FOR LOGIN app1
FROM EXTERNAL PROVIDER
FROM LOGIN app1
WITHOUT LOGIN

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

CREATE ▼ [app1] ▼

CREDENTIAL
LOGIN
USER

FOR LOGIN app1
FROM EXTERNAL PROVIDER
FROM LOGIN app1
WITHOUT LOGIN

NEW QUESTION 102

- (Exam Topic 5)

You have an Azure subscription that contain an Azure SQL managed instance named SQLMI1 and a Log Analytics workspace named Workspace1. You need to collect performance metrics for SQLMI1 and stream the metrics to Workspace1.

- A. Create the private endpoint connection on SQLMI1.
- B. Configure Azure SQL Analytics to use Workspace1.
- C. Modify the Computer + storage settings for SQLMI1.
- D. Modify the diagnostic settings for SQLMI1.

Answer: B

NEW QUESTION 103

- (Exam Topic 5)

You have an Azure subscription.

You plan to migrate 10 on-premises Microsoft SQL Server instances to Azure.

You need to ensure that the migrated environment can be managed by using multiserver administration and supports master/target (MSX/TSX) jobs. The solution must minimize administrative effort.

Which SQL deployment options should you select as the master server (MSX) and the target server (TSX)? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

MSX:

▼

SQL database
SQL managed instances
SQL virtual machines

TSX:

▼

SQL database
SQL managed instances
SQL virtual machines

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

MSX:

▼

SQL database
SQL managed instances
SQL virtual machines

TSX:

▼

SQL database
SQL managed instances
SQL virtual machines

NEW QUESTION 105

- (Exam Topic 5)

You have an Azure SQL database named db1 on a server named server1. The Intelligent Insights diagnostics log identifies queries that cause performance issues due to tempDB contention. You need to resolve the performance issues. What should you do?

- A. Implement memory-optimized tables.
- B. Run the dbcc flushprocindbcommand.
- C. Replace the sequential index keys with nonsequential keys.
- D. Run the dbcc dbreindexcommand.

Answer: A

Explanation:

Reference:
<https://docs.microsoft.com/en-us/azure/azure-sql/database/intelligent-insights-troubleshoot-performance#tempdb>

NEW QUESTION 108

- (Exam Topic 5)

You have an Azure SQL database named DB1 that contains a private certificate named Sales. The private key for Sales is encrypted with a password. You need to change the password for the private key. Which Transact-SQL statement should you run?

- A)
`ALTER CERTIFICATE Sales
 WITH PRIVATE KEY (DECRYPTION BY PASSWORD = 'Mb^6BK&*w%',
 ENCRYPTION BY PASSWORD = ' 6YY9YcD!pV');`
- B)
`ALTER CERTIFICATE Sales
 WITH PRIVATE KEY (ENCRYPTION BY PASSWORD = ' 6YY9YcD!pV');`
- C)
`ALTER CERTIFICATE Sales WITH PRIVATE KEY (FILE = 'D:\importkeys\SalesNew, DECRYPTION BY PASSWORD = ' Mb^6BK&*w%');`
- D)
`ALTER CERTIFICATE Sales WITH PRIVATE KEY (DECRYPTION BY PASSWORD = ' EWYx9Xk+$#');`

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

Answer: C

NEW QUESTION 112

- (Exam Topic 5)

You have an Azure subscription that is linked to a hybrid Azure Active Directory (Azure AD) tenant. The subscription contains an Azure Synapse Analytics SQL pool named Pool1.

You need to recommend an authentication solution for Pool1. The solution must support multi-factor authentication (MFA) and database-level authentication. Which authentication solution or solutions should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

MFA:

Azure AD authentication
 Microsoft SQL Server authentication
 Passwordless authentication
 Windows authentication

Database-level authentication:

Application roles
 Contained database users
 Database roles
 Microsoft SQL Server logins

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Box 1: Azure AD authentication

Azure Active Directory authentication supports Multi-Factor authentication through Active Directory Universal Authentication.

Box 2: Contained database users

Azure Active Directory Uses contained database users to authenticate identities at the database level. Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-authentication>

NEW QUESTION 116

- (Exam Topic 5)

You have an Azure Stream Analytics job.

You need to ensure that the job has enough streaming units provisioned. You configure monitoring of the SU % Utilization metric.

Which two additional metrics should you monitor? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Late Input Events
 B. Out of order Events
 C. Backlogged Input Events
 D. Watermark Delay
 E. Function Events

Answer: CD

Explanation:

To react to increased workloads and increase streaming units, consider setting an alert of 80% on the SU Utilization metric. Also, you can use watermark delay

and backlogged events metrics to see if there is an impact.

Note: Backlogged Input Events: Number of input events that are backlogged. A non-zero value for this metric implies that your job isn't able to keep up with the number of incoming events. If this value is slowly increasing or consistently non-zero, you should scale out your job, by increasing the SUs.

Reference:

<https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-monitoring>

NEW QUESTION 117

- (Exam Topic 5)

You have an Azure virtual machine named VM1 on a virtual network named VNet1. Outbound traffic from VM1 to the internet is blocked.

You have an Azure SQL database named SqlDb1 on a logical server named SqlSrv1.

You need to implement connectivity between VM1 and SqlDb1 to meet the following requirements:

- Ensure that all traffic to the public endpoint of SqlSrv1 is blocked.
- Minimize the possibility of VM1 exfiltrating data stored in SqlDb1. What should you create on VNet1?

- A. a VPN gateway
- B. a service endpoint
- C. a private link
- D. an ExpressRoute gateway

Answer: C

Explanation:

Azure Private Link enables you to access Azure PaaS Services (for example, Azure Storage and SQL Database) and Azure hosted customer-owned/partner services over a private endpoint in your virtual network.

Traffic between your virtual network and the service travels the Microsoft backbone network. Exposing your service to the public internet is no longer necessary.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-link-overview>

NEW QUESTION 120

- (Exam Topic 5)

You have an Azure subscription that contains the resources shown in the following table.

Name	Type	Azure region
VM1	Azure virtual machine	West US 2
MI1	Azure SQL Managed Instance	East US

You need to configure a connection between VM1 and MI1. The solution must meet the following requirements:

- The connection must be encrypted.
- Network latency must be minimized. What should you implement?

- A. virtual network peering
- B. private endpoints
- C. service endpoints
- D. a site-to-site VPN

Answer: B

NEW QUESTION 123

- (Exam Topic 5)

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

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

You have two Azure SQL Database servers named Server1 and Server2. Each server contains an Azure SQL database named Database1.

You need to restore Database1 from Server1 to Server2. The solution must replace the existing Database1 on Server2.

Solution: You run the `Remove-AzSqlDatabasePowerShell` cmdlet for Database1 on Server2. You run the `Restore-AzSqlDatabasePowerShell` cmdlet for Database1 on Server2.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead restore Database1 from Server1 to the Server2 by using the `RESTORE Transact-SQL` command and the `REPLACE` option.

Note: `REPLACE` should be used rarely and only after careful consideration. Restore normally prevents accidentally overwriting a database with a different database. If the database specified in a `RESTORE` statement already exists on the current server and the specified database family GUID differs from the database family GUID recorded in the backup set, the database is not restored. This is an important safeguard.

Reference:

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

NEW QUESTION 125

- (Exam Topic 5)

You have an Azure SQL managed instance named MI1.

You need to implement automatic tuning for the databases of MI1. What should you do?

- A. Use the REST API to call the patch operation and modify the `AutomaticTuningServerMode` property.

- B. Use Transact-SQL to enable the force_last_good_plan option.
 C. From the Azure portal, configure automatic tuning.

Answer: B

NEW QUESTION 129

- (Exam Topic 5)

You have an Azure subscription that contains two Azure SQL managed instances named SQLMI1 and SQLMI2 . SQLMI2 contains a database named DB1 and a user named User1.

User1 drops DB1.

You need to perform a point-in-time restore of DB1 to SQLMI2.

- A. Azure CLI
 B. Transact-SQL
 C. The Azure portal
 D. Azure PowerShell

Answer: C

NEW QUESTION 133

- (Exam Topic 5)

You have SQL Server 2019 or an Azure virtual machine that runs Windows Server 2019. The virtual machine has 4 vCPUs and 28 GB of memory.

You scale up the virtual machine to 8 vCPUs and 64 GB of memory.

You need to reduce tempdb contention without negatively affecting server performance. What is the number of secondary data files that you should configure for tempdb?

- A. 2
 B. 4
 C. 8
 D. 64

Answer: C

NEW QUESTION 138

- (Exam Topic 5)

You configure backups for an Azure SQL database as shown in the following exhibit.

Point-in-time-restore
 Specify how long you want to keep your point-in-time backups. [Learn more](#)

How many days would you like PITR backups to be kept? ⓘ

14

Long-term retention
 Specify how long you want to keep your long-term retention backups. You may choose to keep yearly backups for up to 10 years. [Learn more](#)

Weekly LTR Backups
 Keep weekly backups for:

Monthly LTR Backups
 Keep the first backup of each month for:

Yearly LTR Backups
 Keep an annual backup for:

Which weekly backup of the year would you like to keep?

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
 NOTE: Each correct selection is worth one point.

Answer Area

To restore from a failure that occurred two days ago and caused minimal data loss, you must use a [answer choice]

- point-time restore (PITR) backup.
- yearly long-term retention (LTR) backup.
- weekly long-term retention (LTR) backup.
- monthly long-term retention (LTR) backup.

After the 52nd weekly backup runs, there will be [answer choice] in long term retention.

- 1 backup copy
- 52 backup copies
- 64 backup copies
- 65 backup copies

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

To restore from a failure that occurred two days ago and caused minimal data loss, you must use a [answer choice]

- point-time restore (PITR) backup.
- yearly long-term retention (LTR) backup.
- weekly long-term retention (LTR) backup.
- monthly long-term retention (LTR) backup.

After the 52nd weekly backup runs, there will be [answer choice] in long term retention.

- 1 backup copy
- 52 backup copies
- 64 backup copies
- 65 backup copies

NEW QUESTION 143

- (Exam Topic 5)

You have a database named db1.

The log for db1 contains the following entry.

Date 10/5/2021 10:57:08 AM

Log SQL Server (Current - 10/5/2021 11:26:00 AM)

Source spid1595

Message

The transaction log for database 'db1' is full due to 'AVAILABILITY_REPLICA'

You need to ensure That db1 can process transactions.

Actions

Answer Area

- Add db1 back to the availability group.
- Shrink db1.
- Shrink the transaction log file.
- Remove db1 from the availability group.
- Back up the transaction log file.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Actions	Answer Area
Add db1 back to the availability group.	Remove db1 from the availability group.
Shrink db1.	
Shrink the transaction log file.	Shrink the transaction log file.
Remove db1 from the availability group.	
Back up the transaction log file.	Add db1 back to the availability group.

NEW QUESTION 147

- (Exam Topic 5)

You have an Azure SQL database. The database contains a table that uses a columnstore index and is accessed infrequently.

You enable columnstore archival compression.

What are two possible results of the configuration? Each correct answer presents a complete solution.

NOTE:Each correct selection is worth one point.

- A. Queries that use the index will consume more disk I/O.
- B. Queries that use the index will retrieve fewer data pages.
- C. The index will consume more disk space.
- D. The index will consume more memory.
- E. Queries that use the index will consume more CPU resources.

Answer: BE

Explanation:

For rowstore tables and indexes, use the data compression feature to help reduce the size of the database. In addition to saving space, data compression can help improve performance of I/O intensive workloads because the data is stored in fewer pages and queries need to read fewer pages from disk.

Use columnstore archival compression to further reduce the data size for situations when you can afford extra time and CPU resources to store and retrieve the data.

NEW QUESTION 151

- (Exam Topic 5)

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

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

You have an Azure Data Lake Storage account that contains a staging zone.

You need to design a daily process to ingest incremental data from the staging zone, transform the data by executing an R script, and then insert the transformed data into a data warehouse in Azure Synapse Analytics.

Solution: You use an Azure Data Factory schedule trigger to execute a pipeline that executes an Azure Databricks notebook, and then inserts the data into the data warehouse.

Does this meet the goal?

- A. Yes
- B. No

Answer: B

NEW QUESTION 152

- (Exam Topic 5)

You manage an enterprise data warehouse in Azure Synapse Analytics.

Users report slow performance when they run commonly used queries. Users do not report performance changes for infrequently used queries.

You need to monitor resource utilization to determine the source of the performance issues. Which metric should you monitor?

- A. Local tempdb percentage
- B. DWU percentage
- C. Data Warehouse Units (DWU) used
- D. Cache hit percentage

Answer: A

Explanation:

Tempdb is used to hold intermediate results during query execution. High utilization of the tempdb database can lead to slow query performance.

Note: If you have a query that is consuming a large amount of memory or have received an error message related to allocation of tempdb, it could be due to a very large CREATE TABLE AS SELECT (CTAS) or INSERT SELECT statement running that is failing in the final data movement operation.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-managemonit>

NEW QUESTION 155

- (Exam Topic 5)

A data engineer creates a table to store employee information for a new application. All employee names are in the US English alphabet. All addresses are locations in the United States. The data engineer uses the following statement to create the table.

```
CREATE TABLE dbo.Employee
(
    EmployeeID INT IDENTITY(1,1) PRIMARY KEY CLUSTERED NOT NULL,
    FirstName VARCHAR(100) NOT NULL,
    LastName VARCHAR(100) NOT NULL,
    Title VARCHAR(100) NULL,
    LastHireDate DATETIME NULL,
    StreetAddress1 VARCHAR(500) NOT NULL,
    StreetAddress2 VARCHAR(500) NOT NULL,
    StreetAddress3 VARCHAR(500) NOT NULL,
    City VARCHAR(200) NOT NULL,
    StateName VARCHAR(20) NOT NULL,
    Salary VARCHAR(20) NULL,
    PhoneNumber VARCHAR(20) NOT NULL
)
```

You need to recommend changes to the data types to reduce storage and improve performance. Which two actions should you recommend? Each correct answer presents part of the solution. NOTE:Each correct selection is worth one point.

- A. ChangeSalaryto themoneydata type.
- B. ChangePhoneNumbertothefloatdata type.
- C. ChangeLastHireDateto thedatetime2(7)data type.
- D. ChangePhoneNumbertothebigintdata type.
- E. ChangeLastHireDateto thedatedata type.

Answer: AE

NEW QUESTION 160

- (Exam Topic 5)

You have the following Azure Resource Manager template.

```
...
"variable": {
  "serverName": "azsqlserver0001"
},
"resources": [
  {
    "name": "[variables('serverName')]",
    "type": "Microsoft.Sql/servers",
    "apiVersion": "2019-06-01-preview",
    "location": "[parameters('location')]",
    "properties": {
      "administratorLogin": "[parameters('administratorLogin')]",
      "administratorLoginPassword": "[parameters('administratorLoginPassword')]",
      "version": "12.0"
    },
    "resources": [
      {
        "name": "[concat(variables('serverName'),'/',parameters('databaseName'))]",
        "type": "Microsoft.Sql/servers/databases",
        "apiVersion": "2020-08-01-preview",
        "location": "[parameters('location')]",
        "kind": "v12.0",
        "sku": {
          "name": "Standard",
          "tier": "Standard",
          "capacity": 10
        },
        "dependsOn": [
          "[concat('Microsoft.Sql/servers/', variables('serverName'))]"
        ],
        "properties": {
        },
        "resources": [
        ]
      }
    ]
  }
],
...

```

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE:Each correct selection is worth one point.

Statements	Yes	No
The template deploys a serverless Azure SQL database.	<input type="radio"/>	<input type="radio"/>
The template deploys a database to an Azure SQL Database managed instance.	<input type="radio"/>	<input type="radio"/>
The pricing tier of the database deployment is based on DTUs.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

A screenshot of a computer Description automatically generated with low confidence

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/purchasing-models> <https://docs.microsoft.com/en-us/azure/azure-sql/database/single-database-create-arm-template-quickstart>

NEW QUESTION 162

- (Exam Topic 5)

You receive numerous alerts from Azure Monitor for an Azure SQL database.

You need to reduce the number of alerts. You must only receive alerts if there is a significant change in usage patterns for an extended period.

Which two actions should you perform? Each correct answer presents part of the solution. NOTE: Each correct selection is worth one point.

- A. Set Threshold Sensitivity to High
- B. Set the Alert logic threshold to Dynamic
- C. Set the Alert logic threshold to Static
- D. Set Threshold Sensitivity to Low
- E. Set Force Plan to On

Answer: BD

Explanation:

B: Dynamic Thresholds continuously learns the data of the metric series and tries to model it using a set of algorithms and methods. It detects patterns in the data such as seasonality (Hourly / Daily / Weekly), and is able to handle noisy metrics (such as machine CPU or memory) as well as metrics with low dispersion (such as availability and error rate).

D: Alert threshold sensitivity is a high-level concept that controls the amount of deviation from metric behavior required to trigger an alert.

Low – The thresholds will be loose with more distance from metric series pattern. An alert rule will only trigger on large deviations, resulting in fewer alerts.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-dynamic-thresholds>

NEW QUESTION 166

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2016 instance that hosts a database named db1. You have an Azure subscription that contains an Azure SQL managed instance named Mil.

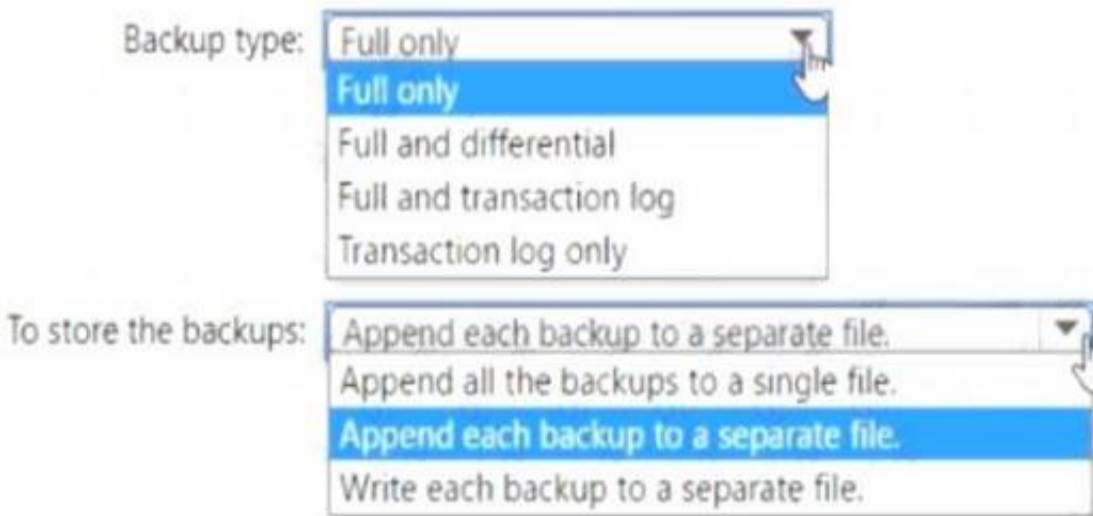
You plan to perform an online migration of db1 to MM by using Azure Database Migration Service.

You need to create the backups for the migration. The solution must minimize the number of backup files created.

Which type of backups should you create, and how should you store the backups? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

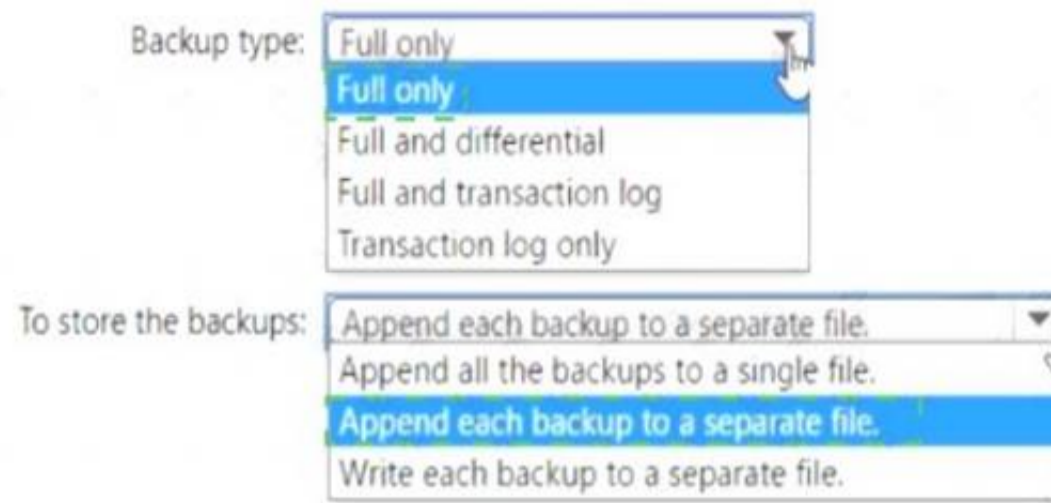
Answer Area



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:
Answer Area

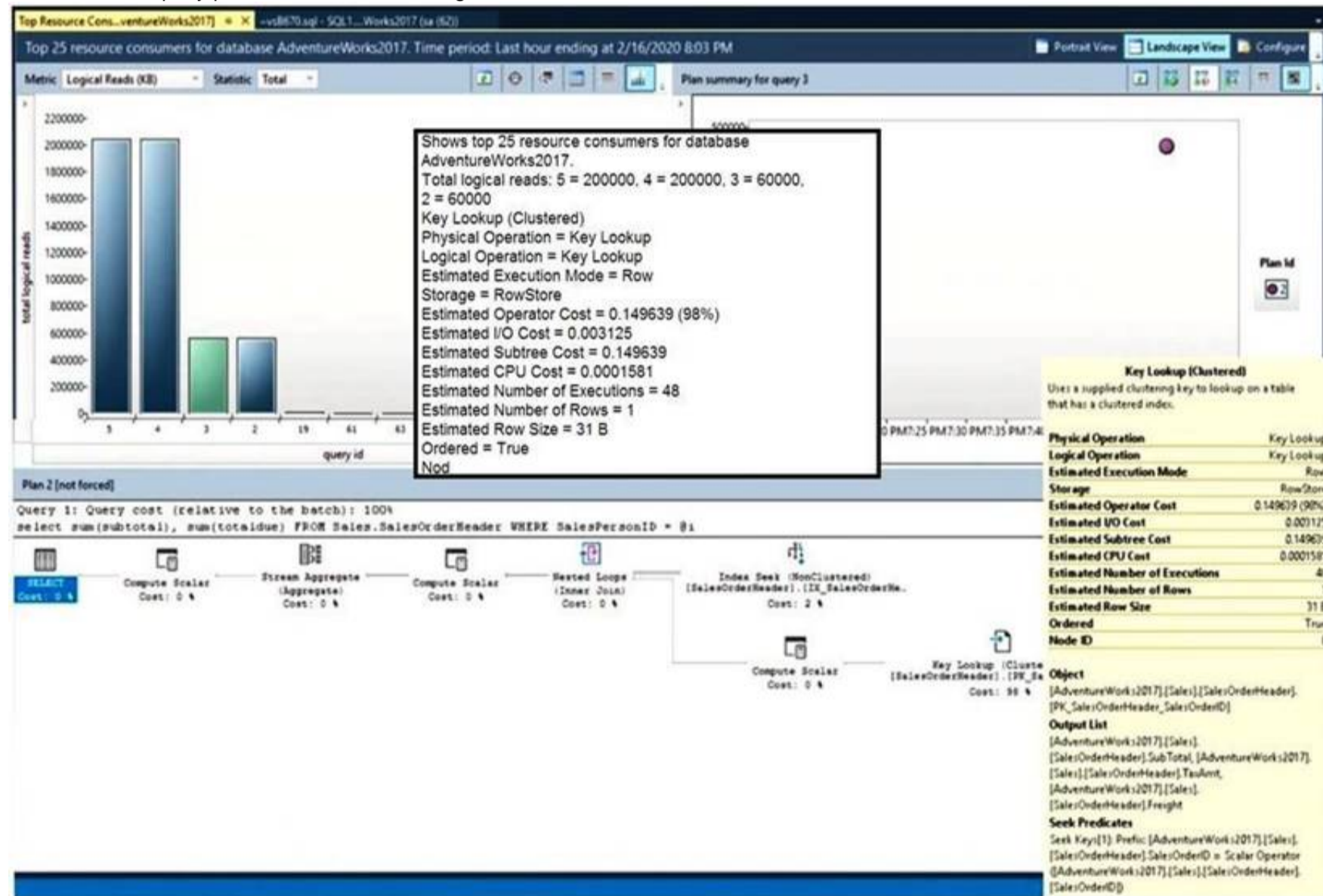


NEW QUESTION 167

- (Exam Topic 5)

You have SQL Server on an Azure virtual machine.

You review the query plan shown in the following exhibit.



For each of the following statements, select yes if the statement is true. Otherwise, select no.

NOTE:Each correct selection is worth one point.

Statements

Yes

No

You will reduce the I/O usage and the query execution time if you force the query plan.

☐
☐

You will increase the I/O usage and the query execution time if you create a new index on the SalesOrderHeader table.

☐
☐

You will reduce the I/O usage and the query execution time if you include the SubTotal, TaxAmt, and Freight columns in the PK_SalesOrderHeader_SalesOrderID index.

☐
☐

A. Mastered
B. Not Mastered

Answer: A

Explanation:

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/performance/monitoring-performance-by-using-the-qu>

NEW QUESTION 171

- (Exam Topic 5)

A company plans to use Apache Spark analytics to analyze intrusion detection data.

You need to recommend a solution to analyze network and system activity data for malicious activities and policy violations. The solution must minimize administrative efforts.

What should you recommend?

- A. Azure Data Lake Storage
- B. Azure Databricks
- C. Azure HDInsight
- D. Azure Data Factory

Answer: C

Explanation:

Azure HDInsight offers pre-made, monitoring dashboards in the form of solutions that can be used to monitor the workloads running on your clusters. There are solutions for Apache Spark, Hadoop, Apache Kafka, live long and process (LLAP), Apache HBase, and Apache Storm available in the Azure Marketplace.

Note: With Azure HDInsight you can set up Azure Monitor alerts that will trigger when the value of a metric or the results of a query meet certain conditions. You can condition on a query returning a record with a value that is greater than or less than a certain threshold, or even on the number of results returned by a query. For example, you could create an alert to send an email if a Spark job fails or if a Kafka disk usage becomes over 90 percent full.

Reference:

<https://azure.microsoft.com/en-us/blog/monitoring-on-azure-hdinsight-part-4-workload-metrics-and-logs/>

NEW QUESTION 173

- (Exam Topic 5)

You are performing exploratory analysis of bus fare data in an Azure Data Lake Storage Gen2 account by using an Azure Synapse Analytics serverless SQL pool. You execute the Transact-SQL query shown in the following exhibit.

```
SELECT
    payment_type,
    SUM(fare_amount) AS fare_total
FROM OPENROWSET (
    BULK 'csv/busfare/tripdata_2020*.csv',
    DATA_SOURCE = 'BusData',
    FORMAT = 'CSV', PARSER_VERSION = '2.0',
    FIRSTROW = 2
)
WITH (
    payment_type INT 10,
    fare_amount FLOAT 11
) AS nyc
GROUP BY payment_type
ORDER BY payment_type;
```

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

The query results include only [answer choice] in the csv/busfare folder.

▼

CSV files in the tripdata_2020 subfolder
files that have files names beginning with "tripdata_2020"
CSV files that have file names containing "tripdata_202"
CSV files that have file named beginning with "tripdata_2020"

The query assumes that the first row in a CSV file is [answer choice] row.

▼

a header
a data
an empty

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, table Description automatically generated

Box 1: CSV files that have file named beginning with "tripdata_2020" Box 2: a header

FIRSTROW = 'first_row'

Specifies the number of the first row to load. The default is 1 and indicates the first row in the specified data file. The row numbers are determined by counting the row terminators. FIRSTROW is 1-based.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql/develop-openrowset>

NEW QUESTION 177

- (Exam Topic 5)

You have a SQL pool in Azure Synapse that contains a table named dbo.Customers. The table contains a column name Email.

You need to prevent nonadministrative users from seeing the full email addresses in the Email column. The users must see values in a format of aXXX@XXXX.com instead.

What should you do?

- A. From the Azure portal, set a mask on the Email column.
- B. From the Azure portal, set a sensitivity classification of Confidential for the Email column.
- C. From Microsoft SQL Server Management Studio, set an email mask on the Email column.
- D. From Microsoft SQL Server Management Studio, grant the SELECT permission to the users for all the columns in the dbo.Customers table except Email.

Answer: B

Explanation:

The Email masking method, which exposes the first letter and replaces the domain with XXX.com using a constant string prefix in the form of an email address.

Example: aXX@XXXX.com

NEW QUESTION 179

- (Exam Topic 5)

You have an on-premises Microsoft SQL Server 2019 server that hosts a database named DB1.

You have an Azure subscription that contains an Azure SQL managed instance named SQLMI1 and a virtual network named VNET1. SQLMI1 resides on VNET1.

The on-premises network connects to VNET1 by using an ExpressRoute connection.

You plan to migrate DB1 to SQLMI1 by using Azure Database Migration Service. You need to configure VNET1 to support the migration.

What should you do?

- A. Configure service endpoints.
- B. Configure virtual network peering.
- C. Deploy an Azure firewall.
- D. Configure network security groups (NSGs).

Answer: A

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-to-managed-instance>

NEW QUESTION 181

- (Exam Topic 5)

You have an Always On availability group deployed to Azure virtual machines. The availability group contains a database named DB1 and has two nodes named SQL1 and SQL2. SQL1 is the primary replica.

You need to initiate a full backup of DB1 on SQL2. Which statement should you run?

- A. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (Differential, STATS=5, COMPRESSION);
- B. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (COPY_ONLY, STATS=5, COMPRESSION);
- C. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (File_Snapshot, STATS=5, COMPRESSION);
- D. BACKUP DATABASE DB1 TO URL='https://mystorageaccount.blob.core.windows.net/ mycontainer/DB1.bak' with (NoInit, STATS=5, COMPRESSION);

Answer: B

Explanation:

BACKUP DATABASE supports only copy-only full backups of databases, files, or filegroups when it's executed on secondary replicas. Copy-only backups don't impact the log chain or clear the differential bitmap.

Reference:

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

NEW QUESTION 184

- (Exam Topic 5)

You have an Azure SQL managed instance named SQLMI1 that has Resource Governor enabled and is used by two apps named App1 and App2.

You need to configure SQLMI1 to limit the CPU and memory resources that can be allocated to App1. Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions	Answer Area
Create a workload group.	
Create a user-defined classifier function.	
Modify Resource Governor.	
Create a contained database user.	
Create a resource pool.	

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Text, table Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/resource-governor/resource-governor?view=sql-server> <https://docs.microsoft.com/en-us/sql/relational-databases/resource-governor/create-and-test-a-classifier-user-def>

NEW QUESTION 186

- (Exam Topic 5)

You are developing an application that uses Azure Data Lake Storage Gen 2.

You need to recommend a solution to grant permissions to a specific application for a limited time period. What should you include in the recommendation?

- A. role assignments
 B. account keys
 C. shared access signatures (SAS)
 D. Azure Active Directory (Azure AD) identities

Answer: C

Explanation:

A shared access signature (SAS) provides secure delegated access to resources in your storage account. With a SAS, you have granular control over how a client can access your data. For example:

What resources the client may access.

What permissions they have to those resources. How long the SAS is valid.

Note: Data Lake Storage Gen2 supports the following authorization mechanisms:

- > Shared Key authorization
- > Shared access signature (SAS) authorization
- > Role-based access control (Azure RBAC)
- > Shared Key authorization
- > Shared access signature (SAS) authorization
- > Role-based access control (Azure RBAC)
- > Access control lists (ACL)

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-sas-overview>

NEW QUESTION 190

- (Exam Topic 5)

You have an Azure virtual machine based on a custom image named VM1. VM1 hosts an instance of Microsoft SQL Server 2019 Standard.

You need to automate the maintenance of VM1 to meet the following requirements: Automate the patching of SQL Server and Windows Server.

Automate full database backups and transaction log backups of the databases on VM1. Minimize administrative effort.

What should you do first?

- A. Enable a system-assigned managed identity for VM1
 B. Register VM1 to the Microsoft.Sql resource provider
 C. Install an Azure virtual machine Desired State Configuration (DSC) extension on VM1
 D. Register VM1 to the Microsoft.SqlVirtualMachine resource provider

Answer: D

Explanation:

Automated Patching depends on the SQL Server infrastructure as a service (IaaS) Agent Extension. The SQL Server IaaS Agent Extension (SqlIaaSExtension) runs on Azure virtual machines to automate administration

tasks. The SQL Server IaaS extension is installed when you register your SQL Server VM with the SQL

Server VM resource provider. Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/virtual-machines/windows/sql-server-iaas-agent-extensionauto>

NEW QUESTION 194

- (Exam Topic 5)

You have an Azure SQL database.

You run the following PowerShell script.

```
$serverName = "SERVER1"
$resourceGroup = "RG1"
$dbName = "DB1"

Connect-AzAccount

$server = Get-AzSqlServer -ServerName $serverName -ResourceGroupName $resourceGroup

Set-AzSqlDatabaseBackupShortTermRetentionPolicy -ResourceGroupName $resourceGroup -ServerName $server `
    -DatabaseName $dbName -RetentionDays 21

Set-AzSqlDatabaseBackupLongTermRetentionPolicy -ServerName $serverName -
    DatabaseName $dbName `
    -ResourceGroupName $resourceGroup -WeeklyRetention P52W -YearlyRetention PSY -WeekOfYear 52
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.
NOTE:Each correct selection is worth one point.

Statements	Yes	No
DB1 can be restored to a specific point in time 30 days ago.	<input type="radio"/>	<input type="radio"/>
DB1 can be restored from a weekly backup performed six months ago.	<input type="radio"/>	<input type="radio"/>
DB1 can be restored from a yearly backup performed six years ago.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Text Description automatically generated

Reference:

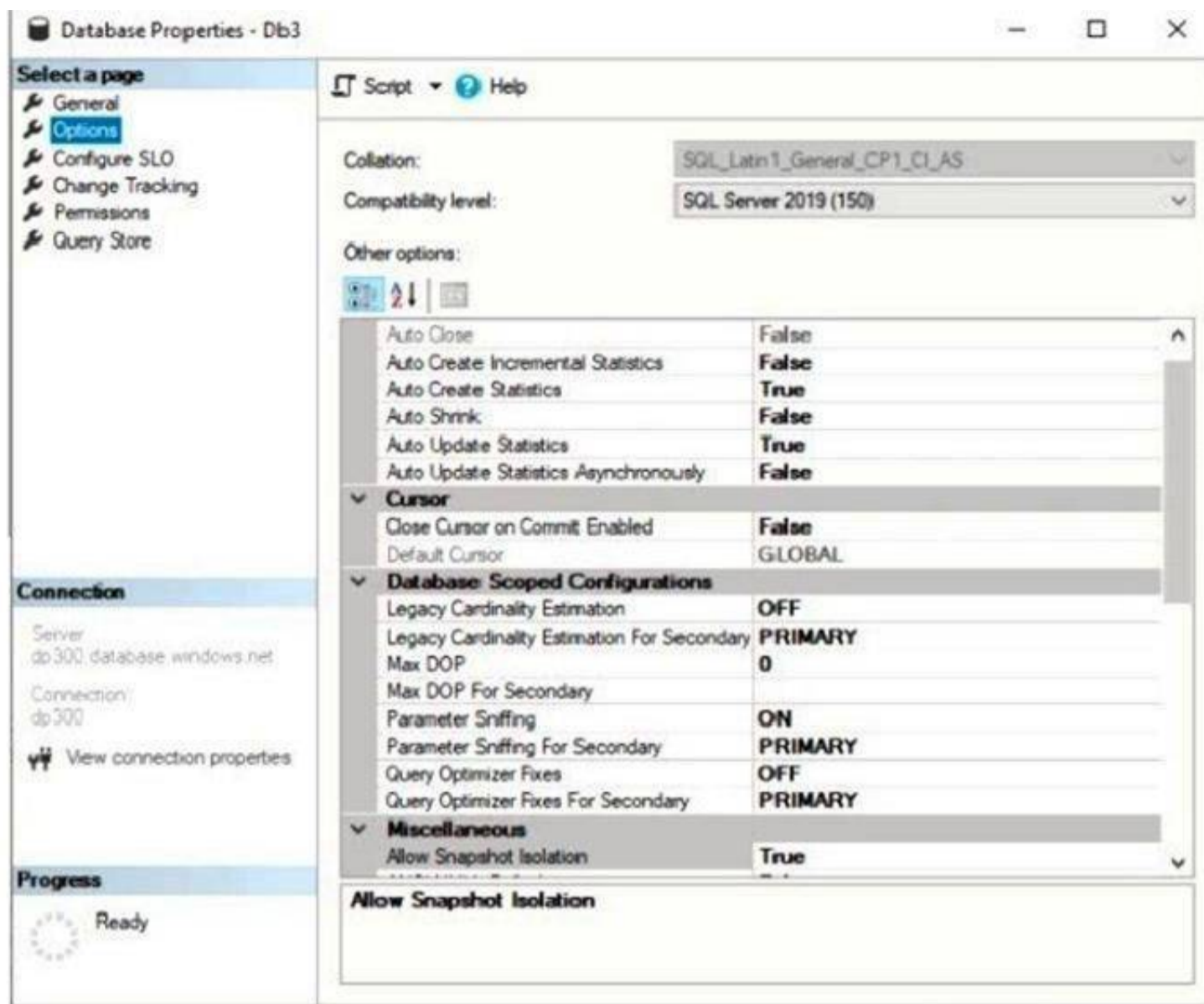
<https://docs.microsoft.com/en-us/powershell/module/az.sql/set-azsqldatabasebackupshorttermretentionpolicy?vi> <https://docs.microsoft.com/en-us/powershell/module/az.sql/set-azsqldatabasebackuplongtermretentionpolicy?vie>

NEW QUESTION 195

- (Exam Topic 5)

You have an Azure SQL database named DB3.

You need to provide a user named DevUser with the ability to view the properties of DB3 from Microsoft SQL Server Management Studio (SSMS) as shown in the exhibit. (Click theExhibittab.)



Which Transact-SQL command should you run?

- A. GRANT SHOWPLAN TO DevUser
- B. GRANT VIEW DEFINITION TO DevUser
- C. GRANT VIEW DATABASE STATE TO DevUser
- D. GRANT SELECT TO DevUser

Answer: C

Explanation:

The exhibits displays Database [State] properties.

To query a dynamic management view or function requires SELECT permission on object and VIEW SERVER STATE or VIEW DATABASE STATE permission.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/databases/database-properties-options-page>

NEW QUESTION 198

- (Exam Topic 5)

You have an Azure subscription that contains a server named Server1. Server1 hosts two Azure SQL databases named DB1 and DB2.

You plan to deploy a Windows app named App1 that will authenticate to DB2 by using SQL authentication. You need to ensure that App1 can access DB2. The solution must meet the following requirements:

- App1 must be able to view only DB2.
- Administrative effort must be minimized. What should you create?

- A. a contained database user for App1 on DB2
- B. a login for App1 on Server1
- C. a contained database user from an external provider for App1 on DB2
- D. a contained database user from a Windows login for App1 on DB2

Answer: D

Explanation:

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/contained-database-users-making-your-databa>

NEW QUESTION 203

- (Exam Topic 5)

You have a Microsoft SQL Server 2019 database named DB1 that uses the following database-level and instance-level features.

- Clustered columnstore indexes
- Automatic tuning
- Change tracking
- PolyBase

You plan to migrate DB1 to an Azure SQL database.

What feature should be removed or replaced before DB1 can be migrated?

- A. Clustered columnstore indexes
- B. PolyBase
- C. Change tracking
- D. Automatic tuning

Answer: B

Explanation:

This table lists the key features for PolyBase and the products in which they're available.

Feature	SQL Server (Beginning with 2016)	Azure SQL Database	Azure Synapse Analytics	Parallel Data Warehouse
Query Hadoop data with Transact-SQL	Yes	No	No	Yes
Import data from Hadoop	Yes	No	No	Yes
Export data to Hadoop	Yes	No	No	Yes
Query, import from, export to Azure HDInsight	No	No	No	No
Push down query computations to Hadoop	Yes	No	No	Yes
Import data from Azure Blob storage	Yes	Yes	Yes	Yes
Export data to Azure Blob storage	Yes	No	Yes	Yes
Import data from Azure Data Lake Store	No	No	Yes	No
Export data to Azure Data Lake Store	No	No	Yes	No
Run PolyBase queries from Microsoft BI tools	Yes	No	Yes	Yes

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/polybase/polybase-versioned-feature-summary>

NEW QUESTION 206

- (Exam Topic 5)

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

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

You have SQL Server 2019 on an Azure virtual machine.

You are troubleshooting performance issues for a query in a SQL Server instance.

To gather more information, you query `sys.dm_exec_requests` and discover that the wait type is `PAGELATCH_UP` and the wait resource is `2:3:905856`.

You need to improve system performance. Solution: You shrink the transaction log file. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Reference:

<https://docs.microsoft.com/en-US/troubleshoot/sql/performance/recommendations-reduce-allocation-contention>

NEW QUESTION 210

- (Exam Topic 5)

You have an Azure subscription.

You need to deploy an Azure SQL resource that will support cross database queries by using an Azure Resource Manager (ARM) template.

How should you complete the ARM template? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

```

"resources": [
  ...
  "type": "Microsoft.Sql/servers",
  "name": "[parameters('targetName')]",
  "location": "[parameters('location')]",
  "sku": {
    "name": "[parameters('skuName')]"
  },
  ...
  "dependsOn": [
    "[parameters('targetName')]",
    "[parameters('virtualNetworkName')]",
    "[variables('networkSecurityGroupName')]",
  ],
  "properties": {
    "administratorLogin": "[parameters('administratorLogin')]",
    "administratorLoginPassword": "[parameters('administratorLoginPassword')]",
    "subnetId": "[resourceId('Microsoft.Network/virtualNetworks/subnets', parameters('virtualNetworkName'), parameters('virtualNetworkName'), parameters('subnetName'))]",
    "storageSizeInGB": "[parameters('storageSizeInGB')]",
    "vCores": "[parameters('vCores')]",
    "licenseType": "[parameters('licenseType')]"
  },
  ...
]

```

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

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Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/create-template-quickstart?tabs=azure-powe>

NEW QUESTION 215

- (Exam Topic 5)

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

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

You have an Azure SQL database named Sales.

You need to implement disaster recovery for Sales to meet the following requirements:

- During normal operations, provide at least two readable copies of Sales.
- Ensure that Sales remains available if a datacenter fails.

Solution: You deploy an Azure SQL database that uses the Business Critical service tier and Availability Zones.

Does this meet the goal?

- A. Yes
 B. No

Answer: A

Explanation:

Premium and Business Critical service tiers leverage the Premium availability model, which integrates compute resources (sqlservr.exe process) and storage (locally attached SSD) on a single node. High availability is achieved by replicating both compute and storage to additional nodes creating a three to four-node cluster.

By default, the cluster of nodes for the premium availability model is created in the same datacenter. With the introduction of Azure Availability Zones, SQL Database can place different replicas of the Business Critical database to different availability zones in the same region. To eliminate a single point of failure, the control ring is also duplicated across multiple zones as three gateway rings (GW).

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/high-availability-sla>

NEW QUESTION 217

- (Exam Topic 5)

You have an Azure subscription.

You plan to deploy an instance of SQL Sevier on Azure Virtual Machines that supports Write Accelerator.

Which virtual machine series should you use?

- A. H-series
 B. G -series

- C. M-series
- D. E-series

Answer: C

NEW QUESTION 221

- (Exam Topic 5)

You are designing a date dimension table in an Azure Synapse Analytics dedicated SQL pool. The date dimension table will be used by all the fact tables. Which distribution type should you recommend to minimize data movement?

- A. HASH
- B. REPLICATE
- C. ROUND_ROBIN

Answer: B

Explanation:

A replicated table has a full copy of the table available on every Compute node. Queries run fast on replicated tables since joins on replicated tables don't require data movement. Replication requires extra storage, though, and isn't practical for large tables.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tables-distribu>

NEW QUESTION 225

- (Exam Topic 5)

You have an Azure Data Factory pipeline that is triggered hourly. The pipeline has had 100% success for the past seven days. The pipeline execution fails, and two retries that occur 15 minutes apart also fail. The third failure returns the following error.

```
ErrorCode=UserErrorFileNotFound,
'Type=Microsoft.DataTransfer.Common.Shared.HybridDeliveryException,Message=ADLS
Gen2 operation failed for: Operation returned an invalid status code
'NotFound'. Account: 'contosoproduksouth' FileSystem: wwi.Path:
'BIKES/CARBON/year=2021/month=01/day=10/hour=06'. ErrorCode:
'PathNotFound'.Message: 'The specified path does not exist.'. RequestId:
'6d269b78-901f-001b-4924-e7a7bc000000'. Timestamp: 'Sun, 10 Jan 2021 07:45:05'
```

What is a possible cause of the error?

- A. From 06:00 to 07:00 on January 10, 2021, there was no data in wwi/BIKES/CARBON.
- B. The parameter used to generate year=2021/month=01/day=10/hour=06 was incorrect.
- C. From 06:00 to 07:00 on January 10, 2021, the file format of data in wwi/BIKES/CARBON was incorrect.
- D. The pipeline was triggered too early.

Answer: B

NEW QUESTION 228

- (Exam Topic 5)

You have an Azure virtual machine named VM1 on a virtual network named VNet1. Outbound traffic from VM1 to the internet is blocked.

You have an Azure SQL database named SqlDb1 on a logical server named SqlSrv1.

You need to implement connectivity between VM1 and SqlDb1 to meet the following requirements:

- Ensure that VM1 cannot connect to any Azure SQL Server other than SqlSrv1.
- Restrict network connectivity to SqlSrv1. What should you create on VNet1?

- A. a VPN gateway
- B. a service endpoint
- C. a private link
- D. an ExpressRoute gateway

Answer: B

Explanation:

Azure Private Link enables you to access Azure PaaS Services (for example, Azure Storage and SQL Database) and Azure hosted customer-owned/partner services over a private endpoint in your virtual network.

Traffic between your virtual network and the service travels the Microsoft backbone network. Exposing your service to the public internet is no longer necessary.

Reference:

<https://docs.microsoft.com/en-us/azure/private-link/private-link-overview>

NEW QUESTION 231

- (Exam Topic 5)

You have a on-premises Microsoft SQL Server named SQL1 that hosts five databases.

You need to migrate the databases to an Azure SQL managed instance. The solution must minimize downtime and prevent data loss.

What should you use?

- A. log shipping
- B. Always On availability groups
- C. Database Migration Assistant

D. Backup and Restore

Answer: C

NEW QUESTION 236

- (Exam Topic 5)

You have an Azure Databricks workspace named workspace1 in the Standard pricing tier. Workspace1 contains an all-purpose cluster named cluster1. You need to reduce the time it takes for cluster1 to start and scale up. The solution must minimize costs. What should you do first?

- A. Upgrade workspace1 to the Premium pricing tier.
- B. Configure a global init script for workspace1.
- C. Create a pool in workspace1.
- D. Create a cluster policy in workspace1.

Answer: C

Explanation:

You can use Databricks Pools to Speed up your Data Pipelines and Scale Clusters Quickly.

Databricks Pools, a managed cache of virtual machine instances that enables clusters to start and scale 4 times faster.

Reference:

<https://databricks.com/blog/2019/11/11/databricks-pools-speed-up-data-pipelines.html>

NEW QUESTION 241

- (Exam Topic 5)

You have an Azure SQL database named that contains a table named Table1. You run a query to bad data into Table1. The performance Of Table1 during the load operation are shown in exhibit.



To reduce how long it takes to complete the query you must [answer choice].

- scale the resource
- use an elastic pool
- perform query tuning

To reduce the log IO load of the operation, the query must be updated to use [answer choice] table.

- a temporary
- an In-Memory OTLP durable
- an In-Memory OTLP non durable

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

To reduce how long it takes to complete the query you must [answer choice].

- scale the resource
- use an elastic pool
- perform query tuning

To reduce the log IO load of the operation, the query must be updated to use [answer choice] table.

- a temporary
- an In-Memory OTLP durable
- an In-Memory OTLP non durable

NEW QUESTION 246

- (Exam Topic 5)

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NEW QUESTION 251

- (Exam Topic 5)

You have an Azure subscription that contains an Azure SQL database. The database fails to respond to queries in a timely manner.

You need to identify whether the issue relates to resource_semaphore waits.

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

NOTE:Each correct selection is worth one point.

```
SELECT
    is_user_process
    wait_time
    wait_type
SUM(wait_time) AS total_wait_time_ms
FROM sys.
    dm_exec_query_stats
    dm_exec_requests
    query_store_query
JOIN sys.dm_exec_sessions AS dmvs2
    ON dmvs1.session_id = dmvs2.session_id
WHERE is_user_process = 1
GROUP BY wait_type
ORDER BY SUM(wait_time) DESC;
```

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/monitoring-with-dmvs>

NEW QUESTION 255

- (Exam Topic 5)

You have an Azure SQL database named DB1. DB1 contains a table that has a column named Col1. You need to encrypt the data in Col1.

Which four actions should you perform for DB1 in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Actions

Answer Area

- Create a database master key.
- Create a column master key.
- Open the symmetric key.
- Create a certificate.
- Update Col1.
- Create a symmetric key.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

Reference:

<https://www.sqlshack.com/an-overview-of-the-column-level-sql-server-encryption/>

NEW QUESTION 260

- (Exam Topic 5)

You deploy a database to an Azure SQL Database managed instance.

You need to prevent read queries from blocking queries that are trying to write to the database. Which database option should set?

- A. PARAMETERIZATIONtoFORCED
- B. PARAMETERIZATIONtoSIMPLE
- C. Delayed Durability toForced
- D. READ_COMMITTED_SNAPSHOTtoON

Answer: D

Explanation:

In SQL Server, you can also minimize locking contention while protecting transactions from dirty reads of uncommitted data modifications using either:

➤ The READ COMMITTED isolation level with the READ_COMMITTED_SNAPSHOT database option set to ON.

➤ The SNAPSHOT isolation level.

If READ_COMMITTED_SNAPSHOT is set to ON (the default on SQL Azure Database), the Database Engine uses row versioning to present each statement with a transactionally consistent snapshot of the data as it existed at the start of the statement. Locks are not used to protect the data from updates by other transactions.

Reference:

<https://docs.microsoft.com/en-us/sql/t-sql/statements/set-transaction-isolation-level-transact-sql>

NEW QUESTION 263

- (Exam Topic 5)

You are planning a solution that will use Azure SQL Database. Usage of the solution will peak from October 1 to January 1 each year.

During peak usage, the database will require the following:

- 24 cores
- 500 GB of storage
- 124 GB of memory
- More than 50,000 IOPS

During periods of off-peak usage, the service tier of Azure SQL Database will be set to Standard. Which service tier should you use during peak usage?

- A. Business Critical
- B. Premium
- C. Hyperscale

Answer: A

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/resource-limits-vcore-single-databases#business-critic>

NEW QUESTION 267

- (Exam Topic 5)

You have an Azure Data Factory pipeline that performs an incremental load of source data to an Azure Data Lake Storage Gen2 account.

Data to be loaded is identified by a column named LastUpdatedDate in the source table. You plan to execute the pipeline every four hours.

You need to ensure that the pipeline execution meets the following requirements:

Automatically retries the execution when the pipeline run fails due to concurrency or throttling limits. Supports backfilling existing data in the table.

Which type of trigger should you use?

- A. tumbling window
- B. on-demand
- C. event
- D. schedule

Answer: A

Explanation:

The Tumbling window trigger supports backfill scenarios. Pipeline runs can be scheduled for windows in the past.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipeline-execution-triggers>

NEW QUESTION 270

- (Exam Topic 4)

You need to design an analytical storage solution for the transactional data. The solution must meet the sales transaction dataset requirements.

What should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE:Each correct selection is worth one point.

Table type to store retail store data:

	▼
Hash	
Replicated	
Round-robin	

Table type to store promotional data:

	▼
Hash	
Replicated	
Round-robin	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: Hash Scenario:

Ensure that queries joining and filtering sales transaction records based on product ID complete as quickly as possible.

A hash distributed table can deliver the highest query performance for joins and aggregations on large tables. Box 2: Round-robin

Scenario:

You plan to create a promotional table that will contain a promotion ID. The promotion ID will be associated to a specific product. The product will be identified by a product ID. The table will be approximately 5 GB.

A round-robin table is the most straightforward table to create and delivers fast performance when used as a staging table for loads. These are some scenarios where you should choose Round robin distribution:

- > When you cannot identify a single key to distribute your data.
- > If your data doesn't frequently join with data from other tables.
- > When there are no obvious keys to join.

Reference:

<https://rajanieshkaushikk.com/2020/09/09/how-to-choose-right-data-distribution-strategy-for-azure-synapse/>

NEW QUESTION 271

- (Exam Topic 4)

You need to implement the surrogate key for the retail store table. The solution must meet the sales transaction dataset requirements.

What should you create?

- A. a table that has a FOREIGN KEY constraint
- B. a table the has an IDENTITY property
- C. a user-defined SEQUENCE object
- D. a system-versioned temporal table

Answer: B

Explanation:

Scenario: Contoso requirements for the sales transaction dataset include: Implement a surrogate key to account for changes to the retail store addresses.

A surrogate key on a table is a column with a unique identifier for each row. The key is not generated from the table data. Data modelers like to create surrogate keys on their tables when they design data warehouse models. You can use the IDENTITY property to achieve this goal simply and effectively without affecting load performance.

Reference:

<https://docs.microsoft.com/en-us/azure/synapse-analytics/sql-data-warehouse/sql-data-warehouse-tablesidentity>

NEW QUESTION 273

- (Exam Topic 2)

You need to implement a solution to notify the administrators. The solution must meet the monitoring requirements.

What should you do?

- A. Create an Azure Monitor alert rule that has a static threshold and assign the alert rule to an action group.
- B. Add a diagnostic setting that logs QueryStoreRuntimeStatistics and streams to an Azure event hub.
- C. Add a diagnostic setting that logs Timeouts and streams to an Azure event hub.
- D. Create an Azure Monitor alert rule that has a dynamic threshold and assign the alert rule to an action group.

Answer: D

Explanation:

Reference:

<https://azure.microsoft.com/en-gb/blog/announcing-azure-monitor-aiops-alerts-with-dynamic-thresholds/>

NEW QUESTION 277

- (Exam Topic 2)

You are evaluating the role assignments.

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

NOTE:Each correct selection is worth one point.

Statements	Yes	No
DBAGroup1 will be able to sign in to each customer's Azure SQL database by using Azure Data Studio.	<input type="radio"/>	<input type="radio"/>
DBAGroup1 will be able to assign the SQL DB Contributor role to other users.	<input type="radio"/>	<input type="radio"/>
DBAGroup2 will be able to create a new Azure SQL database on each customer's Azure SQL Database server.	<input type="radio"/>	<input type="radio"/>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Yes

DBAGroup1 is member of the Contributor role.

The Contributor role grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC, manage assignments in Azure Blueprints, or share image galleries.

Box 2: No

Box 3: Yes

DBAGroup2 is member of the SQL DB Contributor role.

The SQL DB Contributor role lets you manage SQL databases, but not access to them. Also, you can't manage their security-related policies or their parent SQL servers. As a member of this role you can create and manage SQL databases.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles>

NEW QUESTION 278

- (Exam Topic 2)

What should you implement to meet the disaster recovery requirements for the PaaS solution?

- A. Availability Zones
- B. failover groups
- C. Always On availability groups
- D. geo-replication

Answer: B

Explanation:

Scenario: In the event of an Azure regional outage, ensure that the customers can access the PaaS solution with minimal downtime. The solution must provide automatic failover.

The auto-failover groups feature allows you to manage the replication and failover of a group of databases on a server or all databases in a managed instance to another region. It is a declarative abstraction on top of the existing active geo-replication feature, designed to simplify deployment and management of geo-replicated databases at scale. You can initiate failover manually or you can delegate it to the Azure service based on a user-defined policy.

The latter option allows you to automatically recover multiple related databases in a secondary region after a catastrophic failure or other unplanned event that results in full or partial loss of the SQL Database or SQL Managed Instance availability in the primary region.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview>

NEW QUESTION 279

- (Exam Topic 1)

You are planning the migration of the SERVER1 databases. The solution must meet the business requirements.

What should you include in the migration plan? To answer, select the appropriate options in the answer area. NOTE:Each correct selection is worth one point.

Azure Database Migration Service pricing tier:

Standard 2-vCore

Standard 4-vCore

Premium 4-vCore

Required Azure resource:

A virtual network that has service endpoints

A VPN gateway

An Azure Logic app

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Azure Database Migration service Box 1: Premium 4-VCore

Scenario: Migrate the SERVER1 databases to the Azure SQL Database platform.

➤ Minimize downtime during the migration of the SERVER1 databases.

Premium 4-vCore is for large or business critical workloads. It supports online migrations, offline migrations, and faster migration speeds.

Reference: <https://azure.microsoft.com/pricing/details/database-migration/>

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-azure-sql-online>

NEW QUESTION 281

- (Exam Topic 1)

You need to recommend a solution to ensure that the customers can create the database objects. The solution must meet the business goals.

What should you include in the recommendation?

- A. For each customer, grant the customer ddl_admin to the existing schema.
- B. For each customer, create an additional schema and grant the customer ddl_admin to the new schema.
- C. For each customer, create an additional schema and grant the customer db_writerto the new schema.
- D. For each customer, grant the customer db_writerto the existing schema.

Answer: B

NEW QUESTION 283

- (Exam Topic 1)

You need to implement the monitoring of SalesSQLDb1. The solution must meet the technical requirements. How should you collect and stream metrics? To answer, select the appropriate options in the answer area. NOTE:Each correct selection is worth one point.

Collect metrics from:

	▼
The database only	
The elastic pool and the database	
The elastic pool only	
The server, the elastic pool, and the database	

Stream metrics to:

	▼
Azure Event Hubs	
Azure Log Analytics	
Azure Storage	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: The server, the elastic pool, and the database

Senario:

SalesSQLDb1 is in an elastic pool named SalesSQLDb1Pool.

Litware technical requirements include: all SQL Server and Azure SQL Database metrics related to CPU and storage usage and limits must be analyzed by using Azure built-in functionality.

Box 2: Azure Event hubs

Scenario: Migrate ManufacturingSQLDb1 to the Azure virtual machine platform. Event hubs are able to handle custom metrics.

NEW QUESTION 288

- (Exam Topic 1)

You need to implement statistics maintenance for SalesSQLDb1. The solution must meet the technical requirements.

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

Actions

Create and configure a schedule.

Create a SQL Server Agent job.

Publish the runbook.

Create an Azure Automation account.

Import the SqlServer module.

Create a runbook that runs a PowerShell script.

Run `sp_add_jobserver`.

Answer Area

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Automating Azure SQL DB index and statistics maintenance using Azure Automation:

- * 1. Create Azure automation account (Step 1)
- * 2. Import SQLServer module (Step 2)
- * 3. Add Credentials to access SQL DB

This will use secure way to hold login name and password that will be used to access Azure SQL DB

- * 4. Add a runbook to run the maintenance (Step 3)

Steps:1. Click on "runbooks" at the left panel and then click "add a runbook"

- * 2. Choose "create a new runbook" and then give it a name and choose "Powershell" as the type of the runbook and then click on "create"

Add Runbook

Quick Create

Create a new runbook

Import

Import an existing runbook

Runbook

* Name ⓘ

SqlMaintenance

* Runbook type ⓘ

PowerShell

Description

- * 5. Schedule task (Step 4)

Steps:1. Click on Schedules2. Click on "Add a schedule" and follow the instructions to choose existing schedule or create a new schedule.

Reference:

<https://techcommunity.microsoft.com/t5/azure-database-support-blog/automating-azure-sql-db-index-and-statist>

NEW QUESTION 292

- (Exam Topic 1)

You are evaluating the business goals.

Which feature should you use to provide customers with the required level of access based on their service agreement?

- A. dynamic data masking
- B. Conditional Access in Azure
- C. service principals
- D. row-level security (RLS)

Answer: D

Explanation:

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/security/row-level-security?view=sql-server-ver15>

NEW QUESTION 294

- (Exam Topic 1)

You need to implement authentication for ResearchDB1. The solution must meet the security and compliance requirements. What should you run as part of the implementation?

- A. CREATE LOGINand theFROM WINDOWSclause
- B. CREATE USERand theFROM CERTIFICATEclause
- C. CREATE USERand theFROM LOGINclause
- D. CREATE USERand theASYMMETRIC KEYclause
- E. CREATE USERand theFROM EXTERNAL PROVIDERclause

Answer: E

Explanation:

Scenario: Authenticate database users by using Active Directory credentials.

(Create a new Azure SQL database named ResearchDB1 on a logical server named ResearchSrv01.) Authenticate the user in SQL Database or SQL Data Warehouse based on an Azure Active Directory user: CREATE USER [Fritz@contoso.com] FROM EXTERNAL PROVIDER;

Reference:

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

NEW QUESTION 295

- (Exam Topic 1)

You need to recommend a configuration for ManufacturingSQLDb1 after the migration to Azure. The solution must meet the business requirements. What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE:Each correct selection is worth one point.

Quorum model:

Cloud witness

Disk witness

File share witness

Azure resource for the availability group listener:

Azure Application Gateway

Azure Basic Load Balancer

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Scenario: Business Requirements

Litware identifies business requirements include: meet an SLA of 99.99% availability for all Azure deployments.

Box 1: Cloud witness

If you have a Failover Cluster deployment, where all nodes can reach the internet (by extension of Azure), it is recommended that you configure a Cloud Witness as your quorum witness resource.

Box 2: Azure Basic Load Balancer

Microsoft guarantees that a Load Balanced Endpoint using Azure Standard Load Balancer, serving two or more Healthy Virtual Machine Instances, will be available 99.99% of the time.

Note: There are two main options for setting up your listener: external (public) or internal. The external (public) listener uses an internet facing load balancer and is associated with a publicVirtual IP (VIP) that is accessible over the internet. An internal listener uses an internal load balancer and only supports clients within the same Virtual Network.

Reference:

<https://technet.microsoft.com/windows-server-docs/failover-clustering/deploy-cloud-witness> https://azure.microsoft.com/en-us/support/legal/sla/load-balancer/v1_0/

NEW QUESTION 298

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