



-The original certification question!

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Exam Number/Code:70-765

Exam Name: Provisioning SQL
Databases

Version: Demo

Q1

Your company plans to use Microsoft Azure Resource Manager templates for all future deployments of SQL Server on Azure virtual machines.

You need to create the templates.

Solution: You use Visual Studio to create a XAML template that defines the deployment and configuration settings for the SQL Server environment.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Azure Resource Manager template consists of JSON, not XAML, and expressions that you can use to construct values for your deployment.

A good JSON editor can simplify the task of creating templates.

Note: In its simplest structure, an Azure Resource Manager template contains the following elements:

```
{
"$schema":
"http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
"contentVersion": "",
"parameters": { },
"variables": { },
"resources": [ ],
"outputs": { }
}
```

References:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-authoring-templates>

Q2

Your company plans to use Microsoft Azure Resource Manager templates for all future deployments of SQL Server on Azure virtual machines.

You need to create the templates.

Solution: You create the desired SQL Server configuration in an Azure Resource Group, then export the Resource Group template and save it to the Templates Library.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Azure Resource Manager template consists of JSON, and expressions that you can use to construct values for your deployment.

A good JSON editor, not a Resource Group template, can simplify the task of creating templates.

Note: In its simplest structure, an Azure Resource Manager template contains the following elements:

```
{
"$schema":
"http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#
", "contentVersion": "",
"parameters": { },
"variables": { },
"resources": [ ],
"outputs": { }
}
```

References:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-authoring-templates>

Q3

Your company plans to use Microsoft Azure Resource Manager templates for all future deployments of SQL Server on Azure virtual machines.

You need to create the templates.

Solution: You use Visual Studio to create a JSON template that defines the deployment and configuration settings for the SQL Server environment.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Azure Resource Manager template consists of JSON, not XAML, and expressions that you can use to construct values for your deployment.

A good JSON editor can simplify the task of creating templates.

Note: In its simplest structure, an Azure Resource Manager template contains the following elements:

```
{
"$schema":
"http://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#
", "contentVersion": "",
"parameters": { },
"variables": { },
"resources": [ ],
"outputs": { }
}
```

References:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-group-authoring-templates>

Q4

You have a Microsoft SQL Server 2014 named SRV2014 that has a single tempdb database file. The tempdb database file is eight gigabytes (GB) in size.

You install a SQL Server 2016 instance named SQL Server 2016 by using default settings. The new instance has eight logical processor cores.

You plan to migrate the databases from SRV2014 to SRV2016.

You need to configure the tempdb database on SRV2016. The solution must minimize the number of future tempdb autogrowth events.

What should you do?

- A. Increase the size of the tempdb data file to 1 GB. Add seven additional tempdb data files and set the size for each data file to 1 GB.
- B. Increase the size of the tempdb data files to 1 GB.
- C. Add seven additional tempdb data files and set the size for each data file to 1 GB.
- D. Set the value for the autogrowth setting for the tempdb data file to 128 megabytes (MB). Add seven additional tempdb data files and set the autogrowth value to 128 MB.

Answer: B

Explanation:

In an effort to simplify the tempdb configuration experience, SQL Server 2016 setup has been extended to configure various properties for tempdb for multi-processor environments.

A new tab dedicated to tempdb has been added to the Database Engine Configuration step of setup workflow.

Configuration options:

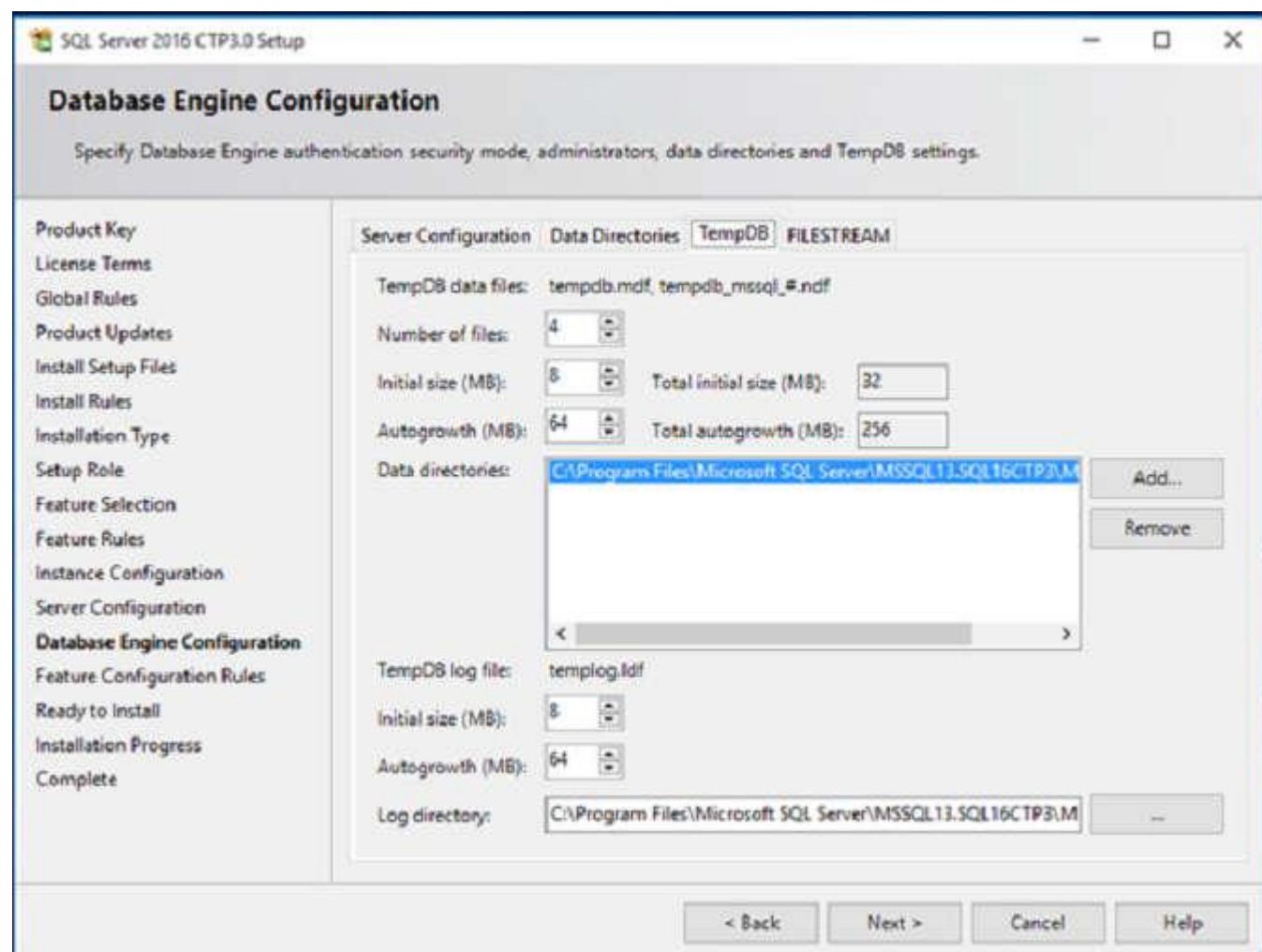
Data Files

Number of files ?this will default to the lower value of 8 or number of logical cores as detected by setup.

Initial size ?is specified in MB and applies to each tempdb data file. This makes it easier to configure all files of same size. Total initial size is the cumulative tempdb data file size (Number of files * Initial Size) that will be created.

Autogrowth ?is specified in MB (fixed growth is preferred as opposed to a non-linear percentage based growth) and applies to each file. The default value of 64MB was chosen to cover one PFS interval.

Figure:



References:

<https://blogs.msdn.microsoft.com/psssql/2016/03/17/sql-2016-it-just-runs-faster-automati-c-tempdb-configuration/>

Q5

You have deployed several GS-series virtual machines (VMs) in Microsoft Azure. You plan to deploy Microsoft SQL Server in a development environment. Each VM has a dedicated disk for backups.

You need to backup a database to the local disk on a VM. The backup must be replicated to another region.

Which storage option should you use?

- A. Premium P10 disk storage
- B. Premium P20 disk storage
- C. Premium P30 disk storage
- D. Standard locally redundant disk storage
- E. Standard geo-redundant disk storage
- F. Standard zone redundant blob storage
- G. Standard locally redundant blob storage
- H. Standard geo-redundant blob storage

Answer: E

Explanation:

Note: SQL Database automatically creates a database backups and uses Azure read-access geo- redundant storage (RA-GRS) to provide geo-redundancy. These backups are created automatically and at no additional charge. You don't need to do anything to make them happen. Database backups are an essential part of any business continuity and disaster recovery strategy because they protect your data from accidental corruption or deletion.

References:

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-automated-backups>

Q6

You have a virtual machine (VM) in Microsoft Azure, which has a 2 terabyte (TB) database. Microsoft SQL Server backups are performed by using Backup to URL.

You need to provision the storage account for the backups while minimizing costs.

Which storage option should you use?

- A. Premium P10 disk storage
- B. Premium P20 disk storage
- C. Premium P30 disk storage
- D. Standard locally redundant disk storage
- E. Standard geo-redundant disk storage
- F. Standard zone redundant blob storage
- G. Standard locally redundant blob storage
- H. Standard geo-redundant blob storage

Answer: G

Explanation:

A URL specifies a Uniform Resource Identifier (URI) to a unique backup file. The URL is used to provide the location and name of the SQL Server backup file. The URL must point to an actual blob, not just a container. If the blob does not exist, it is created. If an existing blob is specified, BACKUP fails, unless the "WITH FORMAT" option is specified to overwrite the existing backup file in the blob.

LOCALLY REDUNDANT STORAGE (LRS) makes multiple synchronous copies of your data within a single datacenter.

Incorrect Answers:

F: Zone redundant blob storage would be more expensive as it stores three copies of data across multiple datacenters within or across regions.

References:

<https://msdn.microsoft.com/en-us/library/dn435916.aspx>

<https://azure.microsoft.com/en-us/pricing/details/storage/blobs/>

Q7

You have deployed a GS-series virtual machine (VM) in Microsoft Azure. You plan to deploy Microsoft SQL Server.

You need to deploy a 30 megabyte (MB) database that requires 100 IOPS to be guaranteed while minimizing costs.

Which storage option should you use?

- A. Premium P10 disk storage
- B. Premium P20 disk storage
- C. Premium P30 disk storage
- D. Standard locally redundant disk storage
- E. Standard geo-redundant disk storage
- F. Standard zone redundant blob storage
- G. Standard locally redundant blob storage
- H. Standard geo-redundant blob storage

Answer: A

Explanation:

Premium Storage Disks Limits

When you provision a disk against a Premium Storage account, how much input/output operations per second (IOPS) and throughput (bandwidth) it can get depends on the size of the disk. Currently, there are three types of Premium Storage disks: P10, P20, and P30. Each one has specific limits for IOPS and throughput as specified in the following table:

Premium Storage Disk Type	P10	P20	P30
Disk Size	128 GiB	512 GiB	1024 GiB (1 TB)
IOPS per disk	500	2300	5000
Throughput per disk	100 MB per second	150 MB per second	200 MB per second

References: <https://docs.microsoft.com/en-us/azure/storage/storage-premium-storage>

Q8

You have deployed several GS-series virtual machines (VMs) in Microsoft Azure. You plan to deploy Microsoft SQL Server in a development environment.

You need to provide storage to the environment that minimizes costs.

Which storage option should you use?

- A. Premium P10 disk storage
- B. Premium P20 disk storage
- C. Premium P30 disk storage
- D. Standard locally redundant disk storage
- E. Standard geo-redundant disk storage
- F. Standard zone redundant blob storage
- G. Standard locally redundant blob storage
- H. Standard geo-redundant blob storage

Answer: D

Q9

HOTSPOT

You use Resource Manager to deploy a new Microsoft SQL Server instance in a Microsoft Azure virtual machine (VM) that uses Premium storage. The combined initial size of the SQL Server user database files is expected to be over 200 gigabytes (GB). You must maximize performance for the database files and the log file.

You add the following additional drive volumes to the VM:

Drive volume	Storage	Host caching
E:	Premium storage	ReadOnly
F:	Premium storage	None

You have the following requirements:

Maximize performance of the SQL Server instance.

Use Premium storage when possible.

You need to deploy the SQL instance.

In the table below, identify the drive where you must store each SQL Server file type.

NOTE: Make only one selection in each column. Each correct selection is worth one point.

Hot Area:

Answer area

Drive	Data files	Log files
C:	<input type="radio"/>	<input type="radio"/>
D:	<input type="radio"/>	<input type="radio"/>
E:	<input type="radio"/>	<input type="radio"/>
F:	<input type="radio"/>	<input type="radio"/>

Answer:

Answer area

Drive	Data files	Log files
C:	<input type="radio"/>	<input type="radio"/>
D:	<input type="radio"/>	<input type="radio"/>
E:	<input checked="" type="radio"/>	<input type="radio"/>
F:	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Enable read caching on the disk(s) hosting the data files and TempDB. Do not enable caching on disk(s) hosting the log file. Host caching is not used for log files.

Incorrect Answers:

C, D: Avoid using operating system or temporary disks for database storage or logging.

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/sql/virtual-machines-windows-sql-performance>

Q10

DRAG DROP

You are building a new Always On Availability Group in Microsoft Azure. The corporate domain controllers (DCs) are attached to a virtual network named ProductionNetwork. The DCs are part of an availability set named ProductionServers1.

You create the first node of the availability group and add it to an availability set named ProductionServers2. The availability group node is a virtual machine (VM) that runs Microsoft SQL Server. You attach the node to ProductionNetwork.

The servers in the availability group must be directly accessible only by other company VMs in Azure.

You need to configure the second SQL Server VM for the availability group.

How should you configure the VM? To answer, drag the appropriate configuration settings to the correct target locations. Each configuration setting may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Configuration settings

None/Not Assigned
ProductionServers1
ProductionNetwork
ProductionServers2
Create a new Object

VM settings page

Settings [_] [□] [X]

Storage
Disk type ⓘ
Standard Premium (SSD)

* Storage account ⓘ (new) sqlstorage3 >

Network

* Virtual network ⓘ
setting >

* Subnet ⓘ
ProductionServers (10.1.0.0/24) >

* Public IP address ⓘ
setting >

* Network security group ⓘ
(new) SQLServers

Extensions

Extensions ⓘ
No extensions >

Monitoring
Diagnostics ⓘ
Disabled Enabled

Availability

* Availability set ⓘ
setting >

OK

Answer:

Configuration settings


ProductionServers1

Create a new Object


VM settings page

Settings

Storage


Disk type 

Standard Premium (SSD)


* Storage account  >

(new) sqlstorage3


Network

* Virtual network  >


ProductionNetwork >

* Subnet  >

ProductionServers (10.1.0.0/24)


* Public IP address  >

None/Not Assigned >

* Network security group  >


(new) SQLServers

Extensions

Extensions  >


No extensions

Monitoring

Diagnostics 

Disabled Enabled

Availability

* Availability set  >

ProductionServers2 >

OK

Explanation:

Box 1: ProductionNetwork

The virtual network is named ProductionNetwork.

Box 2: None /Not Assigned

As the servers in the availability group must be directly accessible only by other company VMs in Azure, there should be no Public IP address.

Box 3: ProductionServer2

You create the first node of the availability group and add it to an availability set named ProductionServers2. The availability group node is a virtual machine (VM) that runs Microsoft SQL Server.