Vendor: Microsoft

Exam Code: 70-583

Exam Name: PRO: Designing and Developing Windows Azure Applications

Version: Demo

Exam A

QUESTION 1
You are designing a **Windows Azure** application that will store data.
You have the following requirements:

- The data **storage** system must support the **storage** of more than 500 GB of data.
- Data retrieval must be possible from a large number of parallel threads without threads blocking each other.

You need to recommend an approach for **storing** data.
What should you recommend?

A. Use **Windows** Azure **Queues**.
B. Use **Windows** Live **Mesh** 2011.
C. Use a single **SQL** Azure **database**.
D. Use **Windows** Azure Table **storage**.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 2
You are designing a web service that will be hosted in Windows **Azure**.
The web service will accept and store **structured** and semi-structured **data**.
The web service must meet the following requirements:

- Update all **data** within a **single transaction**.
- Enforce the data structure for structured data within the data store.

You need to recommend an approach for storing the data.
What should you recommend?

A. Use **Windows** Azure **Queues**.
B. Use a single **SQL** Azure **database**.
C. Use a single **Windows** Azure **Drive**.
D. Use **Windows** Azure Table **storage**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3
You are designing a Windows Azure application that will allow for the processing of **image files**.
Images will be processed in batches by remote applications running on multiple servers.
The application must meet the following requirements:

- Remain operational during batch-processing operations.
- Allow users to roll back each image to previous versions.

Each remote application must have exclusive access to an image while processing it.
You need to recommend an approach for storing the images.
What should you recommend?

A. Store the images in a Windows Azure **Queue**.

B. Store the images in Windows Azure **Blob** storage.
C. Store the images in Windows Azure **Table** storage.
D. Store images in a single Windows Azure **Drive** attached to the web role.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
The Blob service stores text and binary data. The Blob service offers the following three resources: the storage account, containers, and blobs. Within your storage account, containers provide a way to organize sets of blobs.

You can store text and binary data in either of two types of blobs:

Block blobs, which are optimized for streaming.

Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

QUESTION 4
You are designing a strategy for synchronizing a SQL Azure database and multiple remote Microsoft SQL Server 2008 databases.
The SQL Azure database contains many tables that have circular foreign key relationships.
You need to recommend an approach for ensuring that all changes in the remote databases **synchronize** with the **SQL Azure** database.
What should you recommend?

A. Use SQL Azure **Data Sync** Service.
B. Use SQL Server **replication**.
C. Use SQL Server **backup** and **restore**.
D. Use SQL Server database **snapshots**.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
You are designing a Windows Azure application.
The application will include occasionally connected clients that reference data stored in Windows Azure Blob storage.
The clients will be able to add data while disconnected.
You need to recommend an approach for **synchronizing offline** client data with Windows Azure Blob storage.
What should you recommend?

A. Use SQL Azure **Data Sync**.
B. Use the Microsoft **Sync Framework**.
C. Use Windows Azure Blob **storage snapshots**.
D. Use the Microsoft SQL Server **replication component**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
You are designing a strategy for synchronizing two geographically disparate **SQL Azure** databases.
A database named DB1 is located in North America.
A database named DB2 is located in Asia.
DB2 contains a subset of the tables in DB1.
You need to recommend an approach for **bidirectionally synchronizing** the databases each day.
What should you recommend?

A. Use SQL Azure **Data Sync**.
B. Use custom Microsoft **Sync Framework** metadata.
C. Use a Microsoft **Sync Framework** Partial Participant.
D. Use a Microsoft **Sync Framework** file synchronization provider.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
You are planning the deployment of a SQL Azure database.
Your company has a Volume Licensing Agreement for Microsoft SQL Server 2008.
The SQL Azure database must maintain a monthly availability of 99.9%.
You need to recommend an approach for **minimizing** the monthly **expenses** associated with the SQL **Azure** database.
What should you recommend?

A. Add a processor license to the existing **SQL Server** licensing agreement.
B. Purchase a Windows Azure **consumption platform** subscription.
C. Purchase a **SQL Server** Services Provider Licensing Agreement (SPLA).
D. Purchase a **SQL Server** Web license to extend the existing SQL Server licensing agreement.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 8
You are designing a Windows Azure solution.
The solution will be used by multiple customers.
Each customer has different business logic and user interface requirements.
Not all customers use the same version of the .NET runtime.
You need to recommend a deployment strategy.
What should you recommend?

A. Deploy in a **multitenant** configuration.
B. Deploy in a **single-tenant** configuration.
C. Deploy with **multiple web** role instances.
D. Deploy with **multiple worker** role instances.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
You are designing a Windows Azure application that will provide online backup storage for very large media files.
The application must be capable of storing an average of 1 GB of data for each user.
The application must provide **random read/write** access.
You need to recommend a durable data storage solution.
What should you recommend?

A. Use a Windows Azure **Drive**.
B. Use Windows Azure **page blob** storage.
C. Use Windows Azure **block blob** storage.
D. Use local storage on a Windows Azure **instance**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
The Blob service stores text and binary data. The Blob service offers the following three resources: the storage account, containers, and blobs. Within your storage account, containers provide a way to organize sets of blobs.

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Block blobs, which are optimized for streaming.

Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

QUESTION 10
You are designing a plan to migrate Microsoft SQL Server 2008 databases to SQL Azure.
You do not plan to migrate the SQL Server databases to SQL Server 2008 R2.
You need to recommend an approach for performing **bulk data transfers** from the SQL Server databases to SQL Azure.
What should you recommend?

A. Use the **bcp** utility.
B. Use the **dta** utility.
C. Use the SQL Server Import and Export **Wizard**.
D. **Attach** each SQL Server database to SQL Azure.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
The bcp utility bulk copies data between an instance of Microsoft SQL Server and a data file in a user-specified format. The bcp utility can be used to import large numbers of new rows into SQL Server tables or to export data out of tables into data files. Except when used with the queryout option, the utility requires no knowledge of Transact-SQL. To import data into a table, you must either use a format file created for that table or understand the structure of the table and the types of data that are valid for its columns.

QUESTION 11
You are designing a plan for migrating an existing Microsoft SQL Server 2008 database to SQL Azure.
The database includes a SQL Server Agent job that cleans the application log table.
You need to recommend an approach for ensuring that the SQL **Server Agent job** continues to run without modification.
What should you recommend?

A. Use the SQL Azure **Data Sync service**.
B. Run the SQL **Server Agent** in SQL Azure.
C. Use SQL **Server Integration Services** (SSIS) to connect to SQL Azure.
D. Connect the existing on-premise SQL **Server Agent jobs** to SQL Azure.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
SQL Azure Database does not support SQL Server Agent or jobs. You can, however, run SQL Server Agent on your on-premise SQL Server and connect to SQL Azure Database.

QUESTION 12
You are planning the migration of an existing application to **Windows Azure** and SQL Azure.
The current application includes reports that are hosted by SQL *Server* Reporting Services.
You need to recommend an approach for migrating the reports.
What should you recommend?

A. Use **SQL Azure** to host **client** report definitions.
B. Use **SQL Azure** to host **server** report definitions.
C. Use **Windows Azure** to host **client** report definitions in an ASP.NET webpage.
D. Use **Windows Azure** to host **server** report definitions in an ASP.NET webpage.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
You are planning to move **streaming** media content to Windows Azure Storage.
You need to recommend an approach for providing **worldwide** users the fastest possible access to the content.
Which two actions should you recommend?
(Each correct answer presents part of the solution. Choose two.)

A. Use a **Shared** Access Signature.
B. Use Windows Azure **page** blob storage.
C. Use Windows Azure **block** blob storage.
D. Use the Windows Azure Content Delivery Network (**CDN**).

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:
You can store text and binary data in either of two types of blobs:
Block blobs, which are optimized for streaming.
Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

Windows Azure provides the Windows Azure Content Delivery Network (CDN) to deliver Windows Azure Blob content. Windows Azure CDN offers developers a global solution for delivering high-bandwidth content.
The benefit of using a CDN is better performance and user experience for users who are farther from the source of the content stored in the Windows Azure blob storage.

QUESTION 14
You are designing a plan for migrating Virtual Hard Disks (VHDs) and video files to Windows Azure Storage.
The **VHDs** must be optimized for **random read/write** operation.
The **video** files must be optimized for **sequential** access.
You need to recommend storage types for storing the VHDs and video files.
Which two storage types should you recommend?
(Each correct answer presents part of the solution. Choose two.)

A. Store **VHDs** in Windows Azure **page** blob storage.
B. Store **VHDs** in Windows Azure **block** blob storage.
C. Store **video files** in Windows Azure **page** blob storage.
D. Store **video files** in Windows Azure **block** blob storage.

Correct Answer: AD
Section: (none)
Explanation

Explanation/Reference:
You can store text and binary data in either of two types of blobs:
Block blobs, which are optimized for streaming.
Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

After you create or change the server image, you are ready to upload the .vhd file that contains the image data to Windows Azure. There are two opportunities for uploading VHDs to Windows Azure. When you initially create a VM role, you upload a base VHD to Windows Azure, which is used as a template to create VM role instances.

QUESTION 15
You are designing a Windows Azure application that will use Windows Azure Table storage.
The application will allow teams of users to collaborate on projects.
Each user is a member of only **one team**.
You have the following requirements:

- Ensure that each user can efficiently query records related to his or her team's projects.
- Minimize data access latency.

You need to recommend an approach for partitioning table storage entities.
What should you recommend?

A. Partition by **user**.
B. Partition by **team**.
C. Partition by **project**.
D. Partition by the current **date**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16
You are designing a Windows Azure application that will use Windows Azure Table storage.
You need to recommend an approach for minimizing storage costs.
What should you recommend?

A. Use Entity **Group** Transactions.
B. Use multiple **partitions** to store data.

C. Use a transaction scope to **group** all storage operations.
D. Use Microsoft Distributed Transaction **Coordinator** (MSDTC).

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
The Table service supports batch transactions on entities that are in the same table and belong to the same partition group. Multiple Insert Entity, Update Entity, Merge Entity, Delete Entity, Insert Or Replace Entity, and Insert Or Merge Entity operations are supported within a single transaction.
You can perform entity group transactions either via REST or by using the .NET Client Library for WCF Data Services.

oder

Minimize the cost of storage by storing the large files in Windows Azure Table Storage versus SQL Azure (though BLOB storage is preferred for files)

oder

The Microsoft Distributed Transaction Coordinator (MS DTC) is a transaction manager that allows client applications to include several different sources of data in one transaction. MS DTC coordinates committing the distributed transaction across all the servers enlisted in the transaction.

QUESTION 17
You are designing an application that will use Windows Azure Table storage to store millions of data points **each day**.
The application must retain each day's data for only **one week**.
You need to recommend an approach for minimizing storage transactions.
What should you recommend?

A. Use a **separate** table for **each date**.
   Delete each table when it is **one week** old.
B. Use a **separate** table for **each week**.
   Delete each table when it is **one week** old.
C. Use a **single** table, partitioned by **date**.
   Use Entity Group Transactions to delete data when it is **one week** old.
D. Use a **single** table, partitioned by **week**.
   Use Entity Group Transactions to delete data when it is **one week** old.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 18
An application connects to a SQL Azure database.
The application occasionally **loses** the **connection** to the SQL Azure database.
You need to recommend an approach for **reliably** completing **data access** operations.
What should you recommend?

A. **Use** Microsoft ADO.NET connection **pooling**.
B. **Pass exceptions** to the user interface layer.
C. **Implement** a **retry policy** in the data access layer.
D. **Begin** a **transaction** before each data access operation.

Correct Answer: C

Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
You are designing a Windows Azure application that will store data in two SQL Azure databases.
The application will **insert** data in both **databases** as part of a single logical operation.
You need to recommend an approach for maintaining data **consistency** across the databases.
What should you recommend?

A. **Execute** database **calls** on parallel threads.
B. **Wrap** the database **calls** in a single transaction scope.
C. **Use** Microsoft Distributed Transaction Coordinator (MSDTC).
D. **Handle errors** resulting from the database calls by using compensatory logic.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
A Windows Azure application stores data in a SQL Azure database.
The application will **start** an operation that **includes three** insert **statements**.
You need to recommend an approach for **rolling back** the **entire** operation if the connection to SQL Azure is lost.
What should you recommend?

A. Ensure that all statements **execute** in the **same** database **transaction**.
B. **Create** a stored procedure in the database that wraps the insert statements in a **TRY CATCH** block.
C. **Create** a stored procedure in the database that wraps the insert statements in a **TRANSACTION** block.
D. **Open** a new connection to the database.
Use a **separate transaction** scope to roll back the original operation.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
An application uses Windows Azure Table storage.
The application uses five tables.
One table used by the application is **approaching the limit** for storage **requests** per second.
You need to recommend an approach for avoiding data access throttling.
What should you recommend?

A. **Use** a single partition **key** for the table.
B. **Compress** data before storing it in the table.
C. **Create** additional partition **keys** for the table.
D. Continually **remove unnecessary** data from the table.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
A Windows Azure application retrieves data from SQL Azure.
You need to recommend an approach for **improving application query** performance.
What should you recommend?

A. Create a **database view** to retrieve the data.
B. Use a **clustered index** on the SQL Azure database tables.
C. Open a **new database** connection when an operation times out.
D. Create SQL Azure database table indexes based on **application queries**.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
You are planning the **migration** of a Microsoft SQL Server 2008 **data**base to SQL Azure.
You need to recommend an approach for ensuring that database **connect**ivity does not degrade.
Which two actions should you recommend?
(Each correct answer presents part of the solution. Choose two.)

A. **Implement transactions** for database queries.
B. **Close** database **connections** in the application.
C. **Use** Microsoft ADO.NET in the data access layer.
D. **Implement** a **retry policy** in the data access layer.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
You are designing a Windows Azure application.
The application includes a web role and a worker role that communicate by using a Windows Azure Queue.
The worker role processes each message within 10 seconds of retrieving it from the **queue**.
The worker role must **process** each message **exactly one time**.
If a process does not complete, the worker role must reprocess the message.
You need to recommend an approach for the worker role to manage messages in the queue.
What should you recommend?

A. **Process** the **message** and then **delete** it from the **queue**.
B. **Delete** the **message** from the **queue** when **retrieving** the message.
C. Set the **visibility timeout** of the message to 1 when **retrieving** the **message**.
D. **Process** the **message** and then set the **visibility timeout** of the message to the maximum value.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25
You are designing a Windows Azure application.
The application includes two web roles and three instances of a worker role.
The web roles will send requests to the worker role through one or more Windows Azure Queues.
You have the following requirements:

- Ensure that each request is processed **exactly one time**.
- Minimize the idle time of each worker role instance.
- Maximize the reliability of request processing.

You need to recommend a queue design for sending requests to the worker role.
What should you recommend?

A. Create a **single** queue.
   Send requests on the single queue.
B. Create a queue **for each web role**.
   Send requests on all queues at the same time.
C. Create a queue **for each worker role instance**.
   Send requests on each worker queue in a round robin.
D. Create a queue **for each combination of web roles and worker role instances**.
   Send requests to all worker role instances based on the sending web role.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
You are designing a Windows Azure application that will process **images**.
The maximum size of an image is 10 MB.
The application includes a web role that allows users to upload images and a worker role with multiple instances that processes the images.
The web role communicates with the worker role by using a Windows Azure Queue.
You need to recommend an approach for storing images that **minimizes** storage transactions.
What should you recommend?

A. Store **images** in the queue.
B. Store **images** in Windows Azure **Blob** storage.
   Store references to the images in the queue.
C. Store **images** in **local storage** on the web role instance.
   Store references to the images in the queue.
D. Store **images** in Windows Azure **Drives** attached to the worker role instances.
   Store references to the images in the queue.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
You can store text and binary data in either of two types of blobs:
Block blobs, which are optimized for streaming.
Page blobs, which are optimized for random read/write operations and which provide the ability to write to a range of bytes in a blob.

QUESTION 27
You are developing a Windows Azure application in which a web role and worker role will communicate by using a Windows Azure Queue.
You need to recommend an approach for ensuring that the worker role does not attempt to process any

message more than three times.
What should you recommend?

A. Appropriately **handle poison** messages.
B. **Decrease** the visibility **timeout** for messages.
C. **Reduce** the time-to-live **interval** for messages in the queue.
D. **Increase** the **number** of worker role instances reading messages from the queue.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Poison message support Yes Yes
To find "poison" messages in Windows Azure Queues, when dequeuing a message the application examines the DequeueCount property of the message. If DequeueCount is above a given threshold, the application moves the message to an application-defined "dead letter" queue.

QUESTION 28
You are designing a **Windows Azure application**.
The application includes processes that **communicate** by using Windows Communications Foundation (WCF) services.
The WCF services must support streaming.
You need to recommend a **host for the processes** and a WCF binding.
Which two actions should you recommend?
(Each correct answer presents part of the solution. Choose two.)

A. Host the processes in **web** roles.
B. Host the processes in **worker** roles.
C. Use **NetTcpBinding** for the WCF services.
D. Use **WSHttpBinding** for the WCF services.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
The easiest way to use net.tcp:// port sharing in your Windows Communication Foundation (WCF) application is to expose a service using the NetTcpBinding.

This binding provides a PortSharingEnabled property that controls whether net.tcp:// port sharing is enabled for the service being configured with this binding.

The following procedure shows how to use the NetTcpBinding class to open an endpoint at the Uniform Resource Identifier (URI) net.tcp://localhost/MyService, first in code and then by using configuration elements

Webrolle – Eine Webrolle ist eine für die Webanwendungsprogrammierung angepasste Rolle, die von Internetinformationsdiensten und ASP.NET unterstützt wird. Ein Vorteil bei der Verwendung dieses Rollentyps besteht darin, dass Sie die IIS-Konfiguration nicht vornehmen müssen. Diese Rolle wird am besten zum Bereitstellen eines webbasierten Front-End für den gehosteten Dienst verwendet. Sie ist **nicht** für Prozesse mit **langer Laufzeit** geeignet. Weitere Informationen zu Webrollen finden Sie unter Overview of the Web Role.

Workerrolle – Bei einer Workerrolle handelt es sich um eine Rolle, die für die allgemeine Entwicklung nützlich ist und **Hintergrundprozesse** für eine Webrolle ausführen kann. Wenn Sie Hintergrundprozesse mit langen oder periodischen Aufgaben ausführen müssen, sollten Sie diese Rolle verwenden. Weitere Informationen zu Workerrollen finden Sie unter Developing a Background Service.

QUESTION 29
You are designing a Windows Azure **web** application that does not use ASP.NET.

The application requires a standalone Win32 interpreter.
You need to recommend an approach for allowing **access to the interpreter**.
What should you recommend?

A. Use a **web** role.
   Configure the **interpreter** as an ISAPI filter.
B. Use a **web** role.
   Configure a **FastCGI** handler for the interpreter and set the path to the interpreter.
C. Use a **worker** role with an internal endpoint.
   Enable **native code** execution.
D. Use a **worker** role with an external endpoint.
   Configure a **FastCGI** handler for the interpreter and set the path to the root.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
The Web Role is similar to a 'Web Application' – it has aspx pages and code behinds, but can also server anything that uses the http protocol, such as a WCF service using basicHttpBinding. The Web Role is driven by UI – the user interacts with a web page or service and this causes some processing to happen. As far as I can tell, the http pipeline is very similar to standard ASP.NET requests. Just think of it as a good old ASP.NET web application.

The Worker Role is similar to a windows service. It starts up and is running all the time. Instead of a timer, it uses a simple while(true) loop and a sleep statement. When it 'ticks' it performs some kind of maintenance work. This is great for background processing.

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Windows Azure supports the Internet Information Server (IIS) 7.0 FastCGI module, so that developers may host web roles that call applications written in interpreted languages, such as PHP, or in native code.

To host a web role that runs a FastCGI application, you must:

Set the enableNativeCodeExecution flag in the service definition file. By default this attribute is set to true.

Enable FastCGI in the development environment and in Windows Azure.

Package your desired interpreter with your project.

QUESTION 30
You are evaluating a Windows Azure application.
The application includes the following elements:

- A web role that provides the ASP.NET user interface and business logic
- A single SQL Azure database that contains all application data

Each page must receive data from the business logic layer before returning results to the client.
Traffic has increased significantly.
The **business logic** is causing **high CPU usage**.

You need to recommend an approach for **scaling** the application.
What should you recommend?

A. **Move** business logic to a **worker role**.
B. Vertically **partition** the SQL Azure database.
C. **Store** business **logic** results in Windows Azure local storage.
D. **Store** business **logic** results in Windows Azure Table storage.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
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QUESTION 31
You are designing a Windows Azure application.
Messages will be placed into a Windows Azure Queue and then processed by **a** worker **role**.
There is no requirement for adherence to the Windows Azure Service Level Agreement (SLA).
You need to recommend an approach for **concurrently processing** messages while minimizing compute cost.
What should you recommend?

A. A **single** role instance that **processes** messages **individually**
B. A **single** role instance with **multithreaded** request **processing**
C. **Multiple** role instances that **process** messages **individually**
D. **Multiple** role instances, each with **multithreaded** request **processing**

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
You are planning the migration of an existing application to Windows Azure and SQL Azure.
The application produces report files at the request of remote systems.
Requests for report files will be placed into a **single** Windows Azure Queue.
You must minimize the compute resources and storage transactions required to process the requests.
You need to recommend an approach for processing the requests.
What should you recommend?

A. Create a worker role for each report file that constantly **polls** the queue for requests.
B. Create a worker role for each report file that checks the queue at scheduled **intervals** for requests.
C. Create a **single** worker role that constantly **polls** the queue for requests and executes the requests on multiple threads.
D. Create a **single** worker role that checks the queue at scheduled **intervals** for requests and executes the requests on multiple threads.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
You are designing a Windows Azure application that will use a worker role.
The worker role will create temporary files.
You need to recommend an approach for creating the **temporary files** that minimizes storage transactions.
What should you recommend?

A. Create the files on a Windows Azure **Drive**.
B. Create the files in Windows Azure **local storage**.
C. Create the files in Windows Azure **Storage page blobs**.
D. Create the files in Windows Azure **Storage block blobs**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
You are designing a Windows Azure application.
The application will store data in Windows Azure Blob storage.
Many of the application **services** will be interdependent.
You need to recommend an approach for optimizing the performance of the application.
What should you recommend?

A. Create **one** affinity group.
Associate only the **storage** services with the affinity group.
B. Create **one** affinity group.
Associate only the **compute** services with the affinity group.
C. Create **one** affinity group.
Associate the **compute** services and **storage** services with the affinity group.
D. Create **two** affinity groups.
Associate the **compute** services with one group and the **storage** services with the other group.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Use the following procedures to create an affinity group, which can be used to direct Windows Azure storage accounts and hosted services to the same geographical grouping within a specified region. Each affinity group is associated with a Windows Azure subscription, and can be used by multiple storage accounts and hosted services for that subscription.

Affinity groups can be created and managed by the service administrator and co-administrators for a subscription.

QUESTION 35
You are evaluating a Windows Azure application.
The application uses one **instance** of a web role.
The role instance size is set to Medium.
The application does not use SQL Azure.
You have the following requirements for scaling the application:

- Maximize throughput.
- Minimize downtime while scaling.
- **Increase** system resources.

You need to recommend an approach for scaling the application.
What should you recommend?

A. Set up **vertical** partitioning.
B. Set up **horizontal** partitioning.
C. **Increase** the number of role **instances**.
D. **Change** the role instance **size** to Large.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 36
You are designing a **Windows Azure** application.
The application will include **services** hosted in **different geographic locations**.
The service locations may change.
You must minimize the cost of communication between services.
You need to recommend an approach for calling the services.
What should you recommend?

A. Use the Service **Management API**.
B. Use Windows Azure **Table storage**.
C. Use Windows Azure **Queue storage**.
D. Use the Windows Azure **AppFabric Service Bus**.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
The Windows Azure Service Bus provides a hosted, secure, and widely available infrastructure for widespread communication, large-scale event distribution, naming, and service publishing. The Service Bus provides connectivity options for Windows Communication Foundation (WCF) and other service endpoints – including REST endpoints -- that would otherwise be difficult or impossible to reach. Endpoints can be located behind network address translation (NAT) boundaries, or bound to frequently-changing, dynamically-assigned IP addresses, or both.

The Service Bus provides both “relayed” and “brokered” messaging capabilities. In the relayed messaging pattern, the relay service supports direct one-way messaging, request/response messaging, and peer-to-peer messaging. Brokered messaging provides durable, asynchronous messaging components such as Queues, Topics, and Subscriptions, with features that support publish-subscribe and temporal decoupling: senders and receivers do not have to be online at the same time; the messaging infrastructure reliably stores messages until the receiving party is ready to receive them.

QUESTION 37
You plan to host a Windows Communication Foundation (WCF) service in a Windows Azure worker role.
Custom code is necessary to **initialize** and configure the service endpoint.
You need to recommend the point at which the application should initialize the WCF service.
What should you recommend?

A. When Windows Azure **initializes** the worker role instance.
B. When the worker role instance **receives** its first request.

C. When the worker role instance **instantiates** the WCF service.
D. When the worker role instance **enters** the main execution thread.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
A Windows Azure application includes a single-threaded worker role that has multiple instances.
The worker role hosts a Windows Communication Foundation (WCF) service.
Each request to the WCF service takes several seconds to complete.
You need to recommend an approach for ensuring that **worker role** instances do **not receive** requests **while processing**.
What should you recommend?

A. **Close** the WCF **endpoint**.
B. **Throw** an **exception** to cancel the request.
C. **Redirect** incoming **requests** to a different worker role **instance**.
D. **Remove** the worker role **instance** from the **load balancer rotation**.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Traffic Manager performs an HTTP (GET) request against the monitoring endpoint every 30 seconds to determine the service's health. The service must respond with a 200 OK HTTP status code within 5 seconds; otherwise, Traffic Manager considers the service unhealthy and removes it from the load balancer rotation.

QUESTION 39
You are designing a Windows Azure application that will execute long-running business processes.
Applying a configuration change requires role instances to recycle.
You must **not** recycle **until processing is finished**.
You need to recommend an approach for applying configuration changes.
What should you recommend?

A. **Apply** the service configuration changes to the role instance and then **recycle the role instance**.
B. **Suspend each role instance** and then **apply** the service configuration changes to the role instance.
C. **Before a change** to the service configuration is applied to the role instance, **defer** recycling **until** processing is **complete**.
D. **After a change** to the service configuration is applied to the role instance, **defer** recycling **until** processing is **complete**.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40
You are planning the **migration** of an existing application to Windows Azure and SQL Azure.
The original application includes a Microsoft **SQL** Server 2008 database.
You need to recommend an approach for ensuring that the database migrates successfully to SQL Azure.
Which two actions should you recommend?
(Each correct answer presents part of the solution. Choose two.)

A. **Remove** all clustered **indexes** from the database.
B. **Remove** all **dependencies** on the Microsoft Distributed Transaction Coordinator (MSDTC) from the application.
C. **Use** SSL and **SQL** authentication to connect to the database.
D. **Use** SSL and **Windows** authentication to connect to the database.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:
The Microsoft Distributed Transaction Coordinator (MS DTC) is a transaction manager that allows client applications to include several different sources of data in one transaction. MS DTC coordinates committing the distributed transaction across all the servers enlisted in the transaction.

QUESTION 41
An application has been migrated to the Windows Azure platform.
The application references a native x86 DLL.
The DLL source **code is not available**.
The application displays an error when loading the DLL.
You need to recommend an approach for ensuring that the application can load the DLL.
What should you recommend?

A. **Create** a 32bit application to host the DLL.
B. **Modify** the application to allow unsafe code.
C. **Modify** the application to call methods in the DLL.
D. **Modify** the application to target the x86 platform.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 42
You are planning an upgrade strategy for a Windows Azure application.
You need to identify *changes* that will require application downtime.
Which change will always require downtime?

A. Changing the virtual machine **size**
B. Adding an **HTTPS** endpoint to a web role
C. Changing the value of a configuration **setting**
D. Upgrading the hosted service by **deploying** a new package

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 43
You are designing a Windows Azure application.
The application contains one web role and three worker roles.
You need to recommend an approach for **updating** only one role without interrupting the other roles.
What should you recommend?

A. Perform a **VIP swap**.
B. Perform an **in-place upgrade**.
C. **Delete** the current deployment **and** then **redeploy** the application.
D. **Copy** the cloud package to blob storage **and** then **restart** the service.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
I checked and I had https for endpoint along with port (443) and thumbprint for the certificate. I went and re-did the whole thing and it works now, it seems for some reason CName entry was gone from GoDaddy (not sure if taking **down** the web service has got to do somethign with it).

QUESTION 44
You are designing an upgrade strategy for a Windows Azure application that includes one web role with one instance.
You have the following requirements:

- **Test** the application on the Windows Azure platform.
- Ensure that application upgrades can be rolled back.
- Ensure that upgrade and rollback processes do not cause downtime.

You need to recommend an approach for upgrading the application.
What should you recommend?

A. Deploy to the **Production** slot.
Test the application, and then perform a **VIP swap**.
B. Deploy to the **Staging** slot.
Test the application, and then perform a **VIP swap**.
C. Deploy to the **Staging** slot.
Test the application, and then perform a manual in-place upgrade to the **Production slot**.
D. Deploy to the **Staging** slot.
Test the application, and then perform an automatic in-place upgrade to the **Production slot**.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Run Set-AzureDeploymentSlot from the service directory to set the deployment environment for the current service to either Staging or Production. This updates the DeploymentSettings.json file for the service.
A hosted service is a service that runs your code in the Windows Azure environment. It has two separate deployment slots: staging and production. The staging deployment slot allows you to test your service in the Windows Azure environment before you deploy it to production.

You can upgrade your service by deploying a new package to the staging environment and then swapping the staging and production deployments. This type of upgrade is called a Virtual IP or VIP swap, as it swaps the addresses of the two deployments. Both deployments remain online during the swap process. You can swap VIPs using the Windows Azure Platform Management Portal, or by using the Service Management API.

If you are upgrading your service with a new service definition file, you must swap VIPs; you cannot perform an in-place upgrade. However, you can swap VIPs only if the number of endpoints specified by the service definition is identical for both deployments. For example, if you add an HTTPS endpoint to a web role that previously exposed only an HTTP endpoint, you cannot upgrade your service using a VIP swap; you'll need to delete your production deployment and redeploy instead

QUESTION 45
You are migrating a solution to Windows Azure.
The solution includes a web application and a business logic layer.