

Question #1 Topic 1

HOTSPOT -

You are implementing a software as a service (SaaS) ASP.NET Core web service that will run as an Azure Web App. The web service will use an on-premises SQL Server database for storage. The web service also includes a WebJob that processes data updates. Four customers will use the web service.

☞ Each instance of the WebJob processes data for a single customer and must run as a singleton instance.

☞ Each deployment must be tested by using deployment slots prior to serving production data.

☞ Azure costs must be minimized.

☞ Azure resources must be located in an isolated network.

You need to configure the App Service plan for the Web App.

How should you configure the App Service plan? To answer, select the appropriate settings in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer:

Answer Area

App service plan setting	Value
Number of VM instances	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><p>2</p><p>4</p><p>8</p><p>16</p></div>
Pricing tier	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><p>Isolated</p><p>Standard</p><p>Premium</p><p>Consumption</p></div>

Question #2 Topic 1

DRAG DROP -

You are a developer for a software as a service (SaaS) company that uses an Azure Function to process orders. The Azure Function currently runs on an Azure Function app that is triggered by an Azure Storage queue.

You are preparing to migrate the Azure Function to Kubernetes using Kubernetes-based Event Driven Autoscaling (KEDA).

You need to configure Kubernetes Custom Resource Definitions (CRD) for the Azure Function.

Which CRDs should you configure? To answer, drag the appropriate CRD types to the correct locations. Each CRD type 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.

Select and Place:

Answer Area

CRD types	Setting	CRD type
Secret	Azure Function code	
Deployment		
ScaledObject	Polling interval	
TriggerAuthentication	Azure Storage connection string	

**Correct
Answer:**

Answer Area

CRD types	Setting	CRD type
Secret	Azure Function code	
Deployment		Deployment
ScaledObject	Polling interval	ScaledObject
TriggerAuthentication	Azure Storage connection string	Secret

Question #3 Topic 1

HOTSPOT -

You are creating a CLI script that creates an Azure web app and related services in Azure App Service. The web app uses the following variables:

Variable name	Value
\$gitrepo	https://github.com/Contos/webapp
\$webappname	Webapp1103

You need to automatically deploy code from GitHub to the newly created web app. How should you complete the script? To answer, select the appropriate options in the answer area.

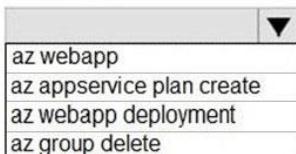
NOTE: Each correct selection is worth one point.

Hot Area:

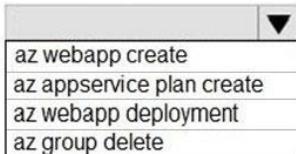
Answer Area

```
az group create --location westeurope --name myResourceGroup
```

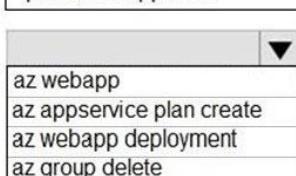
```
--name $webappname --resource-group myResourceGroup --sku FREE
```



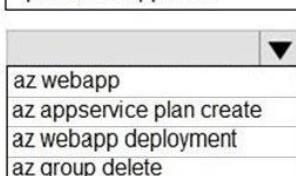
```
--name $webappname --resource-group myResourceGroup
```



```
--repo-url $gitrepo --branch master --manual-integration  
git clone $gitrepo  
--plan $webappname
```

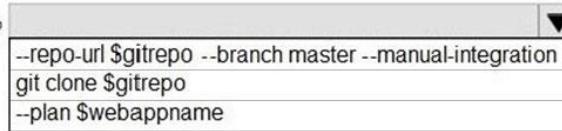


```
source config --name $webappname
```



```
--resource-group myResourceGroup
```

```
--repo-url $gitrepo --branch master --manual-integration  
git clone $gitrepo  
--plan $webappname
```



**Correct
Answer:**

Answer Area

```
az group create --location westeurope --name myResourceGroup
```

```
--name $webappName --resource-group myResourceGroup --sku FREE
```

az webapp
az appservice plan create
az webapp deployment
az group delete

```
--name $webappName --resource-group myResourceGroup
```

az webapp create
az appservice plan create
az webapp deployment
az group delete

```
--repo-url $gitrepo --branch master --manual-integration
```

git clone \$gitrepo
-plan \$webappName

```
source config --name $webappName
```

az webapp
az appservice plan create
az webapp deployment
az group delete

```
--resource-group myResourceGroup
```

```
--repo-url $gitrepo --branch master --manual-integration
```

git clone \$gitrepo
-plan \$webappName

Question #4 Topic 1

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 develop a software as a service (SaaS) offering to manage photographs. Users upload photos to a web service which then stores the photos in Azure Storage Blob storage. The storage account type is General-purpose V2.

When photos are uploaded, they must be processed to produce and save a mobile-friendly version of the image. The process to produce a mobile-friendly version of the image must start in less than one minute.

You need to design the process that starts the photo processing.

Solution: Trigger the photo processing from Blob storage events.

Does the solution meet the goal?

- A. Yes
- B. No

Question #5 Topic 1

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.

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You develop and deploy an Azure App Service API app to a Windows-hosted deployment slot named Development. You create additional deployment slots named Testing and Production. You enable auto swap on the Production deployment slot. You need to ensure that scripts run and resources are available before a swap operation occurs.

Solution: Update the web.config file to include the applicationInitialization configuration element. Specify custom initialization actions to run the scripts.

Does the solution meet the goal?

- A. No
- B. Yes

Question #6 Topic 1

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.

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You develop and deploy an Azure App Service API app to a Windows-hosted deployment slot named Development. You create additional deployment slots named Testing and Production. You enable auto swap on the Production deployment slot. You need to ensure that scripts run and resources are available before a swap operation occurs.

Solution: Enable auto swap for the Testing slot. Deploy the app to the Testing slot.

Does the solution meet the goal?

- A. No
- B. Yes

Question #7 Topic 1

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.

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You develop and deploy an Azure App Service API app to a Windows-hosted deployment slot named Development. You create additional deployment slots named Testing and Production. You enable auto swap on the Production deployment slot. You need to ensure that scripts run and resources are available before a swap operation occurs.

Solution: **Disable auto swap.** Update the app with a method named statuscheck to run the scripts. Re-enable auto swap and deploy the app to the Production slot.

Does the solution meet the goal?

- A. No
- B. Yes

Correct Answer:

Instead update the web.config file to include the applicationInitialization configuration element. Specify custom initialization actions to run the scripts.

Question #8 Topic 1

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.

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You develop a software as a service (SaaS) offering to manage photographs. Users upload photos to a web service which then stores the photos in Azure Storage Blob storage. The storage account type is General-purpose V2.

When photos are uploaded, they must be processed to produce and save a mobile-friendly version of the image. The process to produce a mobile-friendly version of the image must start in less than one minute.

You need to design the process that starts the photo processing.

Solution: **Convert the Azure Storage account to a BlockBlobStorage storage account.** Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Not necessary to convert the account, instead move photo processing to an Azure Function triggered from the blob upload..

Question #9 Topic 1

HOTSPOT -

You are developing an Azure Web App. You configure TLS mutual authentication for the web app.

You need to validate the client certificate in the web app. To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Property	Value
Client certificate location	<div style="border: 1px solid black; padding: 5px;"><p>HTTP request header</p><p>Client cookie</p><p>HTTP message body</p><p>URL query string</p></div>
Encoding type	<div style="border: 1px solid black; padding: 5px;"><p>HTML</p><p>URL</p><p>Unicode</p><p>Base64</p></div>

Question #10 Topic 1

DRAG DROP -

You are developing a Docker/Go using Azure App Service Web App for Containers.

You plan to run the container in an App Service on Linux. You identify a Docker container image to use.

None of your current resource groups reside in a location that supports Linux. You must minimize the number of resource groups required.

You need to create the application and perform an initial deployment.

Which three Azure CLI commands should you use to develop the solution? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Correct

Answer:

Azure CLI Commands

az group create

az group update

az webapp update

az webapp create

az appservice plan create

Answer Area

az group create

az appservice plan create

az webapp create



Question #11 Topic 1

DRAG DROP -

Fourth Coffee has an ASP.NET Core web app that runs in Docker. The app is mapped to the www.fourthcoffee.com domain.

Fourth Coffee is migrating this application to Azure.

You need to provision an App Service Web App to host this docker image and map the custom domain to the App Service web app.

A resource group named FourthCoffeePublicWebResourceGroup has been created in the WestUS region that contains an App Service Plan named

AppServiceLinuxDockerPlan.

Which order should the CLI commands be used to develop the solution? To answer, move all of the Azure CLI commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Ans: order 4-3-1-2

Correct

Answer:

Azure CLI Commands	Answer Area
<pre>az webapp config container set --docker-custom-image-name \$dockerHubContainerPath --name \$appName --resource-group fourthCoffeePublicWebResourceGroup</pre>	<pre>#/bin/bash appName="FourthCoffeePublicWeb\$random" location="WestUS" dockerHubContainerPath="FourthCoffee/publicweb:v1" fqdn="http://www.fourthcoffee.com">www.fourthcoffee.com</pre>
<pre>az webapp config hostname add --webapp-name \$appName --resource-group fourthCoffeePublicWebResourceGroup \ --hostname \$fqdn</pre>	<pre>az webapp config hostname add --webapp-name \$appName --resource-group fourthCoffeePublicWebResourceGroup \ --hostname \$fqdn</pre>
<pre>az webapp create --name \$appName --plan AppServiceLinuxDockerPlan --resource-group fourthCoffeePublicWebResourceGroup</pre>	<pre>az webapp create --name \$appName --plan AppServiceLinuxDockerPlan --resource-group fourthCoffeePublicWebResourceGroup</pre>
<pre>#/bin/bash appName="FourthCoffeePublicWeb\$random" location="WestUS" dockerHubContainerPath="FourthCoffee/publicweb:v1" fqdn="http://www.fourthcoffee.com">www.fourthcoffee.com</pre>	<pre>az webapp config container set --docker-custom-image-name \$dockerHubContainerPath --name \$appName --resource-group fourthCoffeePublicWebResourceGroup</pre>

Question #12 Topic 1

DRAG DROP -

You are developing a serverless Java application on Azure. You create a new Azure Key Vault to work with secrets from a new Azure Functions application.

The application must meet the following requirements:

- ☞ Reference the Azure Key Vault without requiring any changes to the Java code.
- ☞ Dynamically add and remove instances of the Azure Functions host based on the number of incoming application events.
- ☞ Ensure that instances are perpetually warm to avoid any cold starts.
- ☞ Connect to a VNet.
- ☞ Authentication to the Azure Key Vault instance must be removed if the Azure Function application is deleted.

You need to grant the Azure Functions application access to the Azure Key Vault. 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. Select and Place:

Answer should be 2, 7, 3 sequence.

Select and Place:

Actions	Answer Area
Create a user-assigned managed identity for the application.	
Create the Azure Functions app with a Premium plan type.	
Create an access policy in Azure Key Vault for the application identity.	
Create an SSL certification in Azure Key Vault for the application identity.	
Create the Azure Functions app with an App Service plan type.	
Create the Azure Functions app with a Consumption plan type.	
Create a system-assigned managed identity for the application.	

Question #13 Topic 1

You develop a website. You plan to host the website in Azure. You expect the website to experience high traffic volumes after it is published.

You must ensure that the website remains available and responsive while minimizing cost.

You need to deploy the website.

What should you do?

- A. Deploy the website to a virtual machine. Configure the virtual machine to automatically scale when the CPU load is high.
- B. Deploy the website to an App Service that uses the Shared service tier. Configure the App Service plan to automatically scale when the CPU load is high.
- C. Deploy the website to a virtual machine. Configure a Scale Set to increase the virtual machine instance count when the CPU load is high.
- D. Deploy the website to an App Service that uses the Standard service tier. Configure the App Service plan to automatically scale when the CPU load is high.

Question #14 Topic 1

HOTSPOT -

A company is developing a Java web app. The web app code is hosted in a GitHub repository located at <https://github.com/Contoso/webapp>.

The web app must be evaluated before it is moved to production. You must deploy the

initial code release to a deployment slot named staging.
You need to create the web app and deploy the code.
How should you complete the commands? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.

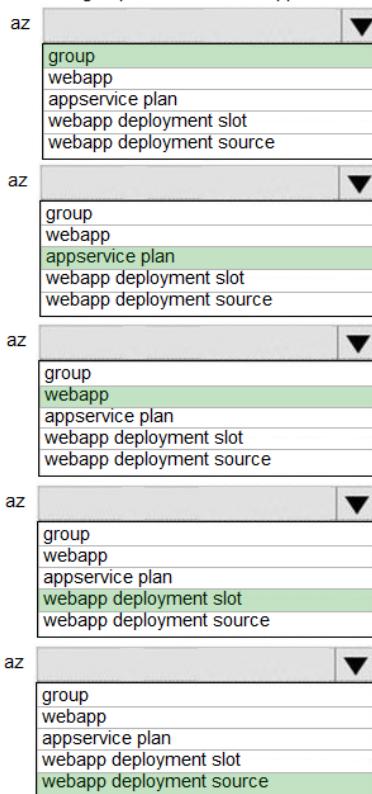
Hot Area:

Correct

Answer:

Answer Area

```
gitrepo=https://github.com/Contoso/webapp
webappname=businesswebapp
resourcegroupname=BusinessAppResourceGroup
az group create --location centralus --name $resourcegroupname
az group webapp create --name $webappname --resource-group $resourcegroupname --sku S3
az webapp create --name $webappname --resource-group $resourcegroupname --plan $webappname
az webapp deployment slot create --name $webappname --resource-group $resourcegroupname --slot staging
az webapp config --name $webappname --resource-group $resourcegroupname \
--slot staging --repo-url $gitrepo --branch master --manual-integration
```



Question #15 Topic 1

HOTSPOT -

You have a web service that is used to pay for food deliveries. The web service uses Azure Cosmos DB as the data store.

You plan to add a new feature that allows users to set a tip amount. The new feature requires that a property named tip on the document in Cosmos DB must be present and contain a numeric value.

There are many existing websites and mobile apps that use the web service that will not be updated to set the tip property for some time.

How should you complete the trigger?

NOTE: Each correct selection is worth one point.

Hot Area:

Correct ans: 1. getContext().getRequest(); 2. if(!("tip" in i)) { 3. r.setBody(i);

Answer Area

```
function ensureTip() {
    var r =
        __.value();
        __.readDocument('item');
        getContext().getRequest();
        getContext().getResponse();

    var i = r.getBody();

        if (!("tip" in i)) {
            if (request.getValue("tip") === null) {
                if (isNaN(i["tip"]) || i["tip"] === null) {
                    if (typeof __.pluck("tip") === 'number') {

                        i["tip"] = 0;
                    }
                }
            }
        }

        r.setBody(i);
        r.setValue(i);
        __.upsertDocument(i);
        __.replaceDocument(i);
}
```

Question #16

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 develop an HTTP triggered Azure Function app to process Azure Storage blob data. The app is triggered using an output binding on the blob.

The app continues to time out after four minutes. The app must process the blob data.

You need to ensure the app does not time out and processes the blob data.

Solution: Use the **Durable Function** async pattern to process the blob data.

Does the solution meet the goal?

- A. Yes
- B. No

Correct Answer: B

Instead pass the HTTP trigger payload into an Azure Service Bus queue to be processed by a queue trigger function and return an immediate HTTP success response.

Question #17 Topic 1

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The app continues to time out after four minutes. The app must process the blob data.

You need to ensure the app does not time out and processes the blob data.

Solution: Pass the HTTP trigger payload into an Azure Service Bus queue to be processed by a queue trigger function and return an immediate HTTP success response.

Does the solution meet the goal?

- A. Yes
- B. No

Question #18 Topic 1

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You develop an HTTP triggered Azure Function app to process Azure Storage blob

data. The app is triggered using an output binding on the blob. The app continues to time out after four minutes. The app must process the blob data. You need to ensure the app does not time out and processes the blob data.

Solution: Configure the app to use an App Service hosting plan and enable the Always On setting.

Does the solution meet the goal?

- A. Yes
- B. No

Question #19 Topic 1

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.

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You develop a software as a service (SaaS) offering to manage photographs. Users upload photos to a web service which then stores the photos in Azure Storage Blob storage. The storage account type is General-purpose V2.

When photos are uploaded, they must be processed to produce and save a mobile-friendly version of the image. The process to produce a mobile-friendly version of the image must start in less than one minute.

You need to design the process that starts the photo processing.

Solution: Move photo processing to an Azure Function triggered from the blob upload.

Does the solution meet the goal?

- A. Yes
- B. No

Question #20 Topic 1

You are developing an application that uses Azure Blob storage.

The application must read the transaction logs of all the changes that occur to the blobs and the blob metadata in the storage account for auditing purposes. The changes must be in the order in which they occurred, include only create, update, delete, and copy operations and be retained for compliance reasons.

You need to process the transaction logs asynchronously.

What should you do?

- A. Process all Azure Blob storage events by using Azure Event Grid with a subscriber Azure Function app.
- B. Enable the change feed on the storage account and process all changes for available events.

- C. Process all Azure Storage Analytics logs for successful blob events.
- D. Use the Azure Monitor HTTP Data Collector API and scan the request body for successful blob events.

Question #21 Topic 1

DRAG DROP -

You plan to create a Docker image that runs an ASP.NET Core application named ContosoApp. You have a setup script named setupScript.ps1 and a series of application files including ContosoApp.dll.

You need to create a Dockerfile document that meets the following requirements:

⇒ Call setupScript.ps1 when the container is built.

⇒ Run ContosoApp.dll when the container starts.

The Dockerfile document must be created in the same folder where ContosoApp.dll and setupScript.ps1 are stored.

Which five commands should you use to develop the solution? To answer, move the appropriate commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Ans: 1: FROM 2: WORKDIR 3: COPY 4: RUN 5: CMD

Correct

Answer:

Commands

```
FROM microsoft/aspnetcore:latest
WORKDIR /apps/ContosoApp
CMD ["dotnet", "ContosoApp.dll"]
COPY ./ .
RUN powershell ./setupScript.ps1
```

Answer Area

CMD ["dotnet", "ContosoApp.dll"]
FROM microsoft/aspnetcore:latest
WORKDIR /apps/ContosoApp
COPY ./ .
RUN powershell ./setupScript.ps1

Question #22 Topic 1

You are developing an Azure Function App that processes images that are uploaded to an Azure Blob container.

Images must be processed as quickly as possible after they are uploaded, and the solution must **minimize latency**. You create code to process images when the Function App is triggered.

You need to configure the Function App.

What should you do?

Correct answer: D

- A. Use an App Service plan. Configure the Function App to use an Azure Blob Storage input trigger.
- B. Use a Consumption plan. Configure the Function App to use an Azure Blob Storage trigger.
- C. Use a Consumption plan. Configure the Function App to use a Timer trigger.
- D. Use an App Service plan. Configure the Function App to use an Azure Blob Storage trigger.
- E. Use a Consumption plan. Configure the Function App to use an Azure Blob Storage input trigger.

Question #23 Topic 1

HOTSPOT -

You are configuring a new development environment for a Java application.

The environment requires a Virtual Machine Scale Set (VMSS), several storage accounts, and networking components.

The VMSS must not be created until the storage accounts have been successfully created and an associated load balancer and virtual network is configured.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

```
{  
  . . .  
  "resources": [  
    {  
      "apiVersion": "2016-01-01",  
      "type": "Microsoft.Storage/storageAccounts",  
      "name": "[concat(  (), 'storage', uniqueString(resourceGroup().id))]",  
      "location": "[resourceGroup().location]",  
      . . .  
      "sku": {  
        "name": "Standard_LRS"  
      },  
      "kind": "Storage",  
      "properties": {},  
      "  ":" {  
        copy  
        copyIndex  
        priority  
        dependsOn  
      }  
      "name": "storagesetup",  
      "count": 3  
    },  
    {  
      "apiVersion": "2015-06-15",  
      "type": "Microsoft.Compute/virtualMachines",  
      "name": "[concat('VM', uniqueString(resourceGroup().id))]",  
      "  ":" [  
        copy  
        copyIndex  
        priority  
        dependsOn  
      ]  
      "[variables('loadBalancerName')]",  
      "[variables('virtualNetworkName')]",  
      "storagesetup",  
      ],  
      . . .  
    }  
  ],  
  "outputs": {}  
}
```

Question #24 Topic 1

HOTSPOT -

You are developing an Azure Function App by using Visual Studio. The app will process orders input by an Azure Web App. The web app places the order information into Azure Queue Storage.

You need to review the Azure Function App code shown below.

```
public static class OrderProcessor
{
    [FunctionName("ProcessOrders")]
    public static void ProcessOrders([QueueTrigger("incoming-orders")]CloudQueueMessage myQueueItem, [Table("Orders")]ICollector<Order> tableBindings, TraceWriter log)
    {
        log.Info($"Processing Order: {myQueueItem.Id}");
        log.Info($"Queue Insertion Time: {myQueueItem.InsertionTime}");
        log.Info($"Queue Expiration Time: {myQueueItem.ExpirationTime}");
        tableBindings.Add(JsonConvert.DeserializeObject<Order>(myQueueItem.AsString));
    }
    [FunctionName("ProcessOrders-Poison")]
    public static void ProcessFailedOrders([QueueTrigger("incoming-orders-poison")]CloudQueueMessage myQueueItem, TraceWriter log)
    {
        log.Error($"Failed to process order: {myQueueItem.AsString}");
    }
}
```

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Yes No

The code will log the time that the order was processed from the queue.

When the ProcessOrders function fails, the function will retry up to five times for a given order, including the first try.

When there are multiple orders in the queue, a batch of orders will be retrieved from the queue and the ProcessOrders function will run multiple instances concurrently to process the orders.

The ProcessOrders function will output the order to an Orders table in Azure Table Storage.

Question #25 Topic 1

DRAG DROP -

You are developing a solution for a hospital to support the following use cases:

- ☞ The most recent patient status details must be retrieved even if multiple users in different locations have updated the patient record.
 - ☞ Patient health monitoring data retrieved must be the current version or the prior version.
 - ☞ After a patient is discharged and all charges have been assessed, the patient billing record contains the final charges.
- You provision a Cosmos DB NoSQL database and set the default consistency level for the database account to Strong. You set the value for Indexing Mode to Consistent.
- You need to minimize latency and any impact to the availability of the solution. You must override the default consistency level at the query level to meet the required consistency guarantees for the scenarios.

Which consistency levels should you implement? To answer, drag the appropriate consistency levels to the correct requirements. Each consistency level 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.

Select and Place:

Correct

Answer:

Consistency levels		Answer Area
Strong	Bounded Staleness	Return the most recent patient status. <input type="checkbox"/> Strong
Consistent Prefix	Eventual	Return health monitoring data that is no less than one version behind. <input type="checkbox"/> Bounded Staleness
		After patient is discharged and all charges are assessed, retrieve the correct billing data with the final charges. <input type="checkbox"/> Eventual

Question #26 Topic 1

HOTSPOT -

You are configuring a development environment for your team. You deploy the latest Visual Studio image from the Azure Marketplace to your Azure subscription.

The development environment requires several software development kits (SDKs) and third-party components to support application development across the organization. You install and customize the deployed virtual machine (VM) for your development team.

The customized VM must be saved to allow provisioning of a new team member development environment.

You need to save the customized VM for future provisioning.

Which tools or services should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Action	Tool or service
Generalize the VM.	Azure PowerShell Visual Studio command prompt Azure Migrate Azure Backup
Store images.	Azure Blob Storage Azure Data Lake Storage Azure File Storage Azure Table Storage

Question #27Topic 1

You are preparing to deploy a website to an Azure Web App from a GitHub repository. The website includes static content generated by a script. You plan to use the Azure Web App continuous deployment feature. You need to run the static generation script before the website starts serving traffic. What are two possible ways to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Add the path to the static content generation tool to WEBSITE_RUN_FROM_PACKAGE setting in the host.json file.
- B. Add a PreBuild target in the websites csproj project file that runs the static content generation script.
- C. Create a file named run.cmd in the folder /run that calls a script which generates the static content and deploys the website.
- D. Create a file named .deployment in the root of the repository that calls a script which generates the static content and deploys the website.

Question #28Topic 1

DRAG DROP -

You are developing an application to use Azure Blob storage. You have configured Azure Blob storage to include change feeds.

A copy of your storage account must be created in another region. Data must be copied

from the current storage account to the new storage account directly between the storage servers.

You need to create a copy of the storage account in another region and copy the data. In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Correct ans sequences:1. Export 2. Create 3. Modify 4. Deploy 5. AzCopy (i.e 3, 4, 5, 2,1)

Select and Place:

Actions	Answer Area
Use AZCopy to copy the data to the new storage account.	
Deploy the template to create a new storage account in the target region.	
Export a Resource Manager template.	
Create a new template deployment.	
Modify the template by changing the storage account name and region.	

Question #29 Topic 1

DRAG DROP -

You are preparing to deploy an Azure virtual machine (VM)-based application.

The VMs that run the application have the following requirements:

- ☞ When a VM is provisioned the firewall must be automatically configured before it can access Azure resources.
- ☞ Supporting services must be installed by using an Azure PowerShell script that is stored in Azure Storage.

You need to ensure that the requirements are met.

Which features should you use? To answer, drag the appropriate features to the correct requirements. Each feature 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.

Select and Place:

Correct Answer: 1. Run Command 2. Customer Script Extension

Select and Place:

Features	Answer Area	
	Requirement	Feature
Run Command	Firewall configuration	
Serial console		
Hybrid Runbook Worker	Supporting services script	
Custom Script Extension		

Question #30 Topic 1

HOTSPOT -

A company is developing a Node.js web app. The web app code is hosted in a GitHub repository located at <https://github.com/TailSpinToys/webapp>.

The web app must be reviewed before it is moved to production. You must deploy the initial code release to a deployment slot named review.

You need to create the web app and deploy the code.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer: 4,3,2,1

Answer Area

```
$gitrepo="https://github.com/TailSpinToys/webapp"
$webappname="TailSpinToysWeb"
$location="WestUS2"

New-AzWebAppSlot
New-AzWebApp
New-AzAppServicePlan
New-AzResourceGroup

New-AzWebAppSlot
New-AzWebApp
New-AzAppServicePlan
New-AzResourceGroup

New-AzWebAppSlot
New-AzWebApp
New-AzAppServicePlan
New-AzResourceGroup

New-AzWebAppSlot
New-AzWebApp
New-AzAppServicePlan
New-AzResourceGroup

$PropertiesObject = @{repoUrl = "$gitrepo";branch = "master";}
Set-AzResource -PropertyObject $PropertiesObject -ResourceGroupName myResourceGroup -ResourceType Microsoft.Web/sites/slots/sourcecontrols -ResourceName $webappname/review/web -ApiVersion 2015-08-01 -Force
Switch-AzWebAppSlot -Name $webappname -ResourceGroupName myResourceGroup
-SourceSlotName review -DestinationSlotName production
```

Question #31 Topic 1

HOTSPOT -

You are developing an application that needs access to an Azure virtual machine (VM). The access lifecycle for the application must be associated with the VM service instance.

You need to enable managed identity for the VM.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

```
$vm = Get-AzVM -ResourceGroupName "ContosoRG" -Name "ContosoVM"
```

```
Update-AzVM -ResourceGroupName "ContosoRG" -VM $vm
```

-AssignIdentity:	▼
-IdentityId:	

\$SystemAssigned	▼
\$UserAssigned	

Question #32 Topic 1

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 develop a software as a service (SaaS) offering to manage photographs. Users upload photos to a web service which then stores the photos in Azure Storage Blob storage. The storage account type is General-purpose V2.

When photos are uploaded, they must be processed to produce and save a mobile-friendly version of the image. The process to produce a mobile-friendly version of the image must start in less than one minute.

You need to design the process that starts the photo processing.

Solution: Create an Azure Function app that uses the Consumption hosting model and that is triggered from the blob upload.

Does the solution meet the goal?

Correct Answer: NO

- A. Yes

- B. No

Question #33 Topic 1

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 develop and deploy an Azure App Service API app to a Windows-hosted deployment slot named Development. You create additional deployment slots named Testing and Production. You enable auto swap on the Production deployment slot. You need to ensure that scripts run and resources are available before a swap operation occurs.

Solution: Update the app with a method named statuscheck to run the scripts. Update the app settings for the app. Set the WEBSITE_SWAP_WARMUP_PING_PATH and WEBSITE_SWAP_WARMUP_PING_STATUSES with a path to the new method and appropriate response codes.

Does the solution meet the goal?

- A. No
- B. Yes

Question #34 Topic 1

HOTSPOT -

You create the following PowerShell script:

```
$source = New-AzScheduledQueryRuleSource -Query 'Heartbeat | where TimeGenerated > ago(1h)' -DataSourceId "contoso"
$schedule = New-AzScheduledQueryRuleSchedule -FrequencyInMinutes 60 -TimeWindowInMinutes 60
$triggerCondition = New-AzScheduledQueryRuleTriggerCondition -ThresholdOperator "LessThan" -Threshold 5
$aznsActionGroup = New-AzScheduledQueryRuleAznsActionGroup -ActionGroup "contoso" -EmailSubject "Custom email subject"
-CustomWebhookPayload "{ ""alert"":""#alertrulename"" , ""IncludeSearchResults"":true }"
$alertingAction = New-AzScheduledQueryRuleAlertingAction -AznsAction $aznsActionGroup -Severity "3" -Trigger $triggerCondition
New-AzScheduledQueryRule -ResourceGroupName "contoso" -Location "eastus" -Action $alertingAction -Enabled $true
-Description "Alert description" -Schedule $schedule -Source $source -Name "Alert Name"
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statements	Yes	No
A log alert is created that sends an email when the CPU percentage is above 60 percent for five minutes.	<input type="radio"/>	<input checked="" type="radio"/>
A log alert is created that sends an email when the number of virtual machine heartbeats in the past hour is less than five.	<input checked="" type="radio"/>	<input type="radio"/>
The log alert is scheduled to run every two hours.	<input type="radio"/>	<input checked="" type="radio"/>

Question #35 Topic 1

DRAG DROP -

You are developing an Azure Function app.

The app must meet the following requirements:

- Enable developers to write the functions by using the Rust language.
- Declaratively connect to an Azure Blob Storage account.

You need to implement the app.

Which Azure Function app features should you use? To answer, drag the appropriate features to the correct requirements. Each feature 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.

Correct ans: Box 1: Custom handler. Box 2: Extension bundles

Select and Place:

Features	Answer Area
Custom handler	
Extension bundle	
Trigger	
Runtime	
Policy	
Hosting plan	
Requirement	Feature
Enable developers to write the functions by using the Rust language.	<input type="checkbox"/> Feature
Declaratively connect to an Azure Blob Storage account.	<input type="checkbox"/> Feature

Question #36 Topic 1

HOTSPOT -

You are developing an ASP.NET Core web application. You plan to deploy the application to Azure Web App for Containers.

The application needs to store runtime diagnostic data that must be persisted across application restarts. You have the following code:

```
public void SaveDiagData(string data)
{
    var path = Environment.GetEnvironmentVariable("DIAGDATA");
    File.WriteAllText(Path.Combine(path, "data"), data);
}
```

You need to configure the application settings so that diagnostic data is stored as required.

How should you configure the web app's settings? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

App setting	Value
LOCALAPPDATA	true
WEBSITE_LOCALCACHE_ENABLED	
DOTNET_HOSTING_OPTIMIZATION_CACHE	
WEBSITES_ENABLE_APP_SERVICE_STORAGE	
DIAGDATA	

Question #37 Topic 1

You are developing a web app that is protected by Azure Web Application Firewall (WAF). All traffic to the web app is routed through an Azure Application Gateway instance that is used by multiple web apps. The web app address is contoso.azurewebsites.net.

All traffic must be secured with SSL. The Azure Application Gateway instance is used by multiple web apps.

You need to configure the Azure Application Gateway for the web app.

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

NOTE: Each correct selection is worth one point.

- A. In the Azure Application Gateway's HTTP setting, enable the Use for App service setting.
- B. Convert the web app to run in an Azure App service environment (ASE).
- C. Add an authentication certificate for contoso.azurewebsites.net to the Azure Application Gateway.
- D. In the Azure Application Gateway's HTTP setting, set the value of the Override backend path option to contoso22.azurewebsites.net.

Question #38 Topic 1

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 develop a software as a service (SaaS) offering to manage photographs. Users upload photos to a web service which then stores the photos in Azure Storage Blob storage. The storage account type is General-purpose V2.

When photos are uploaded, they must be processed to produce and save a mobile-friendly version of the image. The process to produce a mobile-friendly version of the image must start in less than one minute.

You need to design the process that starts the photo processing.

Solution: Use the Azure Blob Storage change feed to trigger photo processing.

Does the solution meet the goal?

- A. Yes
- B. No

Question #1 Topic 2

HOTSPOT -

A company develops a series of mobile games. All games use a single leaderboard service.

You have the following requirements:

- Code must be scalable and allow for growth.
- Each record must consist of a playerId, gameId, score, and time played.
- When users reach a new high score, the system will save the new score using the SaveScore function below.
- Each game is assigned an Id based on the series title.

You plan to store customer information in Azure Cosmos DB. The following data already exists in the database:

PartitionKey	RowKey	Email
Harp	Walter	wharp@contoso.com
Smith	Steve	ssmith@contoso.com
Smith	Jeff	jsmith@contoso.com

You develop the following code to save scores in the data store. (Line numbers are included for reference only.)

```
01 public void SaveScore(string gameId, string playerId, int score, long timePlayed)
02 {
03     CloudStorageAccount storageAccount = CloudStorageAccount.Parse(connectionString);
04     CloudTableClient tableClient = storageAccount.CreateCloudTableClient();
05     CloudTable table = tableClient.GetTableReference("scoreTable");
06     table.CreateIfNotExists();
07     var scoreRecord = new PlayerScore(gameId, playerId, score, timePlayed);
08     TableOperation insertOperation = TableOperation.Insert(scoreRecord);
09     table.Execute(insertOperation);
10 }
```

You develop the following code to query the database. (Line numbers are included for

reference only.)

```
01 CloudTableClient tableClient = account.CreateCloudTableClient();
02 CloudTable table = tableClient.GetTableReference ("people");
03 TableQuery < CustomerEntity> query = new TableQuery <CustomerEntity >()
04 .Where( TableQuery.CombineFilters (
05 TableQuery.GenerateFilterCondition (PartitionKey, QueryComparisons.Equal , "Smith"),
06 TableOperators.And , TableQuery.GenerateFilterCondition (Email, QueryComparisons.Equal, "ssmith@contoso.com")
07 ));
08 await table.ExecuteQuerySegmentedAsync< CustomerEntity>(query, null);
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statements	Yes	No
SaveScore will work with Cosmos DB.	<input checked="" type="radio"/>	<input type="radio"/>
SaveScore will update and replace a record if one already exists with the same playerId and gameId.	<input type="radio"/>	<input checked="" type="radio"/>
Leader board data for the game will be automatically partitioned using gameId.	<input type="radio"/>	<input checked="" type="radio"/>
SaveScore will store the values for the gameId and playerId parameters in the database.	<input checked="" type="radio"/>	<input type="radio"/>

Question #2 Topic 2

HOTSPOT -

You are developing a solution that uses the Azure Storage Client library for .NET. You have the following code: (Line numbers are included for reference only.)

```

01 CloudBlockBlob src = null;
02 try
03 {
04     src = container.ListBlobs().OfType<CloudBlockBlob>().FirstOrDefault();
05     var id = await src.AcquireLeaseAsync(null);
06     var dst = container.GetBlockBlobReference(src.Name);
07     string cpid = await dst.StartCopyAsync(src);
08     await dst.FetchAttributeAsync();
09     return id;
10 }
11 catch (Exception e)
12 {
13     throw;
14 }
15 finally
16 {
17     if (src != null)
18         await src.FetchAttributesAsync();
19     if (src.Properties.LeaseState != LeaseState.Available)
20         await src.BreakLeaseAsync(new TimeSpan(0));
21 }

```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statement	Yes	No
The code creates an infinite lease	<input checked="" type="radio"/>	<input type="radio"/>
The code at line 06 always creates a new blob	<input type="radio"/>	<input checked="" type="radio"/>
The finally block releases the lease	<input checked="" type="radio"/>	<input type="radio"/>

Question #3 Topic 2

You are building a website that uses Azure Blob storage for data storage. You configure Azure Blob storage lifecycle to move all blobs to the archive tier after 30 days.

Customers have requested a service-level agreement (SLA) for viewing data older than 30 days.

You need to document the minimum SLA for data recovery.

Which SLA should you use?

- A. at least two days
- B. between one and 15 hours
- C. at least one day
- D. between zero and 60 minutes

Question #4 Topic 2

HOTSPOT -

You are developing a ticket reservation system for an airline.

The storage solution for the application must meet the following requirements:

- ⇒ Ensure at least 99.99% availability and provide low latency.
- ⇒ Accept reservations even when localized network outages or other unforeseen failures occur.
- ⇒ Process reservations in the exact sequence as reservations are submitted to minimize overbooking or selling the same seat to multiple travelers.
- ⇒ Allow simultaneous and out-of-order reservations with a maximum five-second tolerance window.

You provision a resource group named airlineResourceGroup in the Azure South-Central US region.

You need to provision a SQL API Cosmos DB account to support the app.

How should you complete the Azure CLI commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer Area

```
resourceGroupName='airlineResourceGroup'  
name='docdb-airline-reservations'  
databaseName='docdb-tickets-database'  
collectionName='docdb-tickets-collection'  
consistencyLevel=
```

Strong
Eventual
ConsistentPrefix
BoundedStaleness

```
az cosmosdb create \  
--name $name \  
  
--enable-virtual-network true \  
--enable-automatic-failover true \  
--kind 'GlobalDocumentDB' \  
--kind 'MongoDB' \  
  
--resource-group $resourceGroupName \  
--max-interval 5 \  

```

--locations 'southcentralus'
--locations 'eastus'
--locations 'southcentralus=0 eastus=1 westus=2'
--locations 'southcentralus=0'

```
--default-consistency-level = $consistencylevel
```

Answer:

Question #5 Topic 2

HOTSPOT -

You are preparing to deploy a Python website to an Azure Web App using a container. The solution will use multiple containers in the same container group. The Dockerfile that builds the container is as follows:

```
FROM python:3
ADD website.py
CMD [ "python", "./website.py"]
```

You build a container by using the following command. The Azure Container Registry instance named images is a private registry.

```
docker build -t images.azurecr.io/website:v1.0.0
```

The user name and password for the registry is admin.

The Web App must always run the same version of the website regardless of future builds.

You need to create an Azure Web App to run the website.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct ans : 4, 3, 3

Answer Area

```
az configure --defaults web=website
az configure --defaults group=website
az appservice plan create --name websitePlan
    -sku SHARED
    -tags container
    -sku B1 --hyper-v
    -sku B1 --is-linux

az webapp create --plan websitePlan
    --deployment-source-url images.azurecr.io/website:v1.0.0
    --deployment-source-url images.azurecr.io/website:latest
    --deployment-container-image-name images.azurecr.io/website:v1.0.0
    --deployment-container-image-name images.azurecr.io/website:latest

az webapp config
    set --python-version 2.7 --generic-configurations user=admin password=admin
    set --python-version 3.6 --generic-configurations user=admin password=admin
    container set --docker-registry-server-url https://images.azurecr.io -u admin -p admin
    container set --docker-registry-server-url https://images.azurecr.io/website -u admin -p admin
```

Question #6 Topic 2

HOTSPOT -

You are developing a back-end Azure App Service that scales based on the number of messages contained in a Service Bus queue.

A rule already exists to scale up the App Service when the average queue length of unprocessed and valid queue messages is greater than 1000.

You need to add a new rule that will continuously scale down the App Service as long as the scale up condition is not met.

How should you configure the Scale rule? To answer, select the appropriate options in

the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

The correct answers are 1) Service bus queue 2) Active message count 3) Average 4) Less than or equal to 5) Decrease count by

Correct Ans

Scale rule

Metric source

- Storage queue
- Service Bus queue
- Current resource
- Storage queue (classic)

Resource type

- Service Bus Namespaces

Resource

- MessageQueue1103

* Queues

- itemqueue

Criteria

* Metric name

- Message Count
- Active Message Count

* Time grain statistic

- Total
- Maximum
- Average
- Count

* Operator

- Greater than
- Greater than or equal to
- Less than
- Less than or equal to

* Threshold

- 1000

Action

* Operation

- Increase count by
- Increase count to
- Decrease count by
- Decrease count to

* Instance count

- 1

* Cool down (minutes)

- 5

Correct Answer:

Question #7 Topic 2

DRAG DROP -

You have an application that uses Azure Blob storage.

You need to update the metadata of the blobs.

Which three methods should you use to develop the solution? To answer, move the appropriate methods from the list of methods to the answer area and arrange them in the correct order.

Select and Place:

Correct ans sequence: 1. FetchAttributesAsync 2. Metadata. Add 3. SetMetadataAsync

Correct Answer: Select and Place:

Methods	Answer Area
Metadata.Add	
SetMetadataAsync	
FetchAttributesAsync	
UploadFileStream	
SetPropertiesAsync	

Question #8 Topic 2

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 are developing an Azure solution to collect point-of-sale (POS) device data from 2,000 stores located throughout the world. A single device can produce

2 megabytes (MB) of data every 24 hours. Each store location has one to five devices that send data.

You must store the device data in Azure Blob storage. Device data must be correlated based on a device identifier. Additional stores are expected to open in the future.

You need to implement a solution to receive the device data.

Solution: Provision an Azure Event Grid. Configure the machine identifier as the partition key and enable capture.

Does the solution meet the goal?

- A. Yes
- B. No

Question #9 Topic 2

You develop Azure solutions.

A .NET application needs to receive a message each time an Azure virtual machine finishes processing data. The messages must NOT persist after being processed by the receiving application.

You need to implement the .NET object that will receive the messages.

Which object should you use?

- A. QueueClient
- B. SubscriptionClient
- C. TopicClient
- D. CloudQueueClient

Question #10 Topic 2

DRAG DROP -

You are maintaining an existing application that uses an Azure Blob GPv1 Premium storage account. Data older than three months is rarely used.

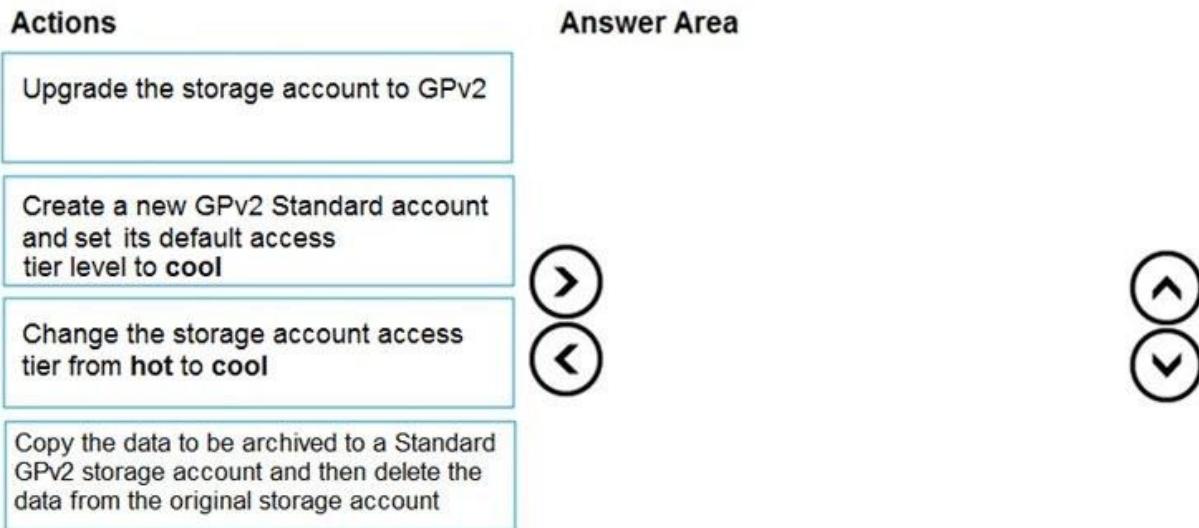
Data newer than three months must be available immediately. Data older than a year must be saved but does not need to be available immediately.

You need to configure the account to support a lifecycle management rule that moves blob data to archive storage for data not modified in the last year.

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.
Select and Place:

Correct Answer: 1, 2, 4

Select and Place:



Question #11 Topic 2

You develop Azure solutions.

You must connect to a **No-SQL globally-distributed** database by using the .NET API.

You need to create an object to configure and execute requests in the database.

Which code segment should you use?

- A. new Container(EndpointUri, PrimaryKey);
- B. new Database(EndpointUri, PrimaryKey);
- C. **new CosmosClient(EndpointUri, PrimaryKey);**

Question #12 Topic 2

You have an existing Azure storage account that stores large volumes of data across multiple containers.

You need to copy all data from the existing storage account to a new storage account.

The copy process must meet the following requirements:

- ☞ Automate data movement.
- ☞ Minimize user input required to perform the operation.
- ☞ Ensure that the data movement process is recoverable.

What should you use?

- A. AzCopy
- B. Azure Storage Explorer
- C. Azure portal
- D. .NET Storage Client Library

Question #13 Topic 2

DRAG DROP -

You are developing a web service that will run on Azure virtual machines that use Azure Storage. You configure all virtual machines to use managed identities.

You have the following requirements:

- Secret-based authentication mechanisms are not permitted for accessing an Azure Storage account.

- Must use only Azure Instance Metadata Service endpoints.

You need to write code to retrieve an access token to access Azure Storage. To answer, drag the appropriate code segments to the correct locations. Each code segment may be used 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.

Select and Place:

Correct Answer: 4,4

Select and Place:

Code segment 1

http://localhost:50342/oauth2/token
 http://169.254.169.254:50432/oauth2/token
 http://localhost/metadata/identity/oauth2/token
 http://169.254.169.254/metadata/identity/oauth2/token

Code segment 2

XDocument.Parse(payload);
 new MultipartContent(payload);
 new NetworkCredential("Azure", payload);
 JsonConvert.DeserializeObject<Dictionary<string, string>>(payload);

Answer Area

var url1 = " Code segment 1" ;
var queryString = "...";
var client = new HttpClient();
var response = await client.GetAsync(url1 + queryString);
var payload = await response.Content.ReadAsStringAsync();

return Code segment 2

Question #14 Topic 2

DRAG DROP -

You are developing a new page for a website that uses Azure Cosmos DB for data storage. The feature uses documents that have the following format:

```
{  
    "name": "John",  
    "city" : "Seattle"  
}
```

You must display data for the new page in a specific order. You create the following

query for the page:

```
SELECT*
FROM People p
ORDER BY p.name, p.city DESC
```

You need to configure a Cosmos DB policy to support the query.

How should you configure the policy? To answer, drag the appropriate JSON segments to the correct locations. Each JSON segment 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.

Select and Place:

Correct

Answer:

JSON segments

orderBy
sortOrder
ascending
descending
compositeIndexes

Answer Area

```
{
  "automatic": true,
  "ngMode": "Consistent",
  "includedPaths": [
    {
      "path": "/*"
    }
  ],
  "excludedPaths": [],
  "compositeIndexes": [
    {
      "path": "/name", "order": "descending"
    },
    {
      "path": "/city", "order": "descending"
    }
  ]
}
```

Question #15 Topic 2

HOTSPOT -

You are building a traffic monitoring system that monitors traffic along six highways. The system produces time series analysis-based reports for each highway.

Data from traffic sensors are stored in Azure Event Hub.

Traffic data is consumed by four departments. Each department has an Azure Web App that displays the time series-based reports and contains a WebJob that processes the incoming data from Event Hub. All Web Apps run on App Service Plans with three instances.

Data throughput must be maximized. Latency must be minimized.

You need to implement the Azure Event Hub.

Which settings should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Setting	Value
---------	-------

Number of partitions

3
4
6
12

Partition Key

Highway
Department
Timestamp
VM name

Correct Answer:

Question #16 Topic 2

DRAG DROP -

You are developing a microservices solution. You plan to deploy the solution to a multinode Azure Kubernetes Service (AKS) cluster.

You need to deploy a solution that includes the following features:

- reverse proxy capabilities
- configurable traffic routing
- TLS termination with a custom certificate

Which components should you use? To answer, drag the appropriate components to the correct requirements. Each component 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.

Select and Place:

Correct

Answer:

Answer Area

Components	Action	Component
Helm		
Draft	Deploy solution.	Helm
Brigade	View cluster and external IP addressing.	KubeCtl
KubeCtl		
Ingress Controller	Implement a single, public IP endpoint that is routed to multiple microservices.	Ingress Controller
CoreDNS		
Virtual Kubelet		

Question #17 Topic 2

DRAG DROP -

You are implementing an order processing system. A point of sale application publishes orders to topics in an Azure Service Bus queue. The Label property for the topic includes the following data:

Property	Description
ShipLocation	the country/region where the order will be shipped
CorrelationId	a priority value for the order
Quantity	a user-defined field that stores the quantity of items in an order
AuditedAt	a user-defined field that records the date an order is audited

The system has the following requirements for subscriptions:

Subscription type	Comments
FutureOrders	This subscription is reserved for future use and must not receive any orders
HighPriorityOrders	Handle all high priority orders and international orders
InternationalOrders	Handle orders where the country/region is not United States
HighQuantityOrders	Handle only orders with quantities greater than 100 units
AllOrders	This subscription is used for auditing purposes. This subscription must receive every single order. AllOrders has an Action defined that updates the AuditedAt property to include the date and time it was received by the subscription.

You need to implement filtering and maximize throughput while evaluating filters. Which filter types should you implement? To answer, drag the appropriate filter types to the correct subscriptions. Each filter type 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.

Select and Place:

Correct Answer:

Filter types

SQLFilter

CorrelationFilter

No Filter

Answer Area

Subscription

FutureOrders

HighPriorityOrders

InternationalOrders

HighQuantityOrders

AllOrders

Filter type

SQLFilter

CorrelationFilter

SQLFilter

SQLFilter

No Filter

Question #18 Topic 2

DRAG DROP -

Your company has several websites that use a company logo image. You use Azure Content Delivery Network (CDN) to store the static image.

You need to determine the correct process of how the CDN and the Point of Presence (POP) server will distribute the image and list the items in the correct order.

In which order do the actions occur? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Correct

Answer:

Actions

If no edge servers in the POP have the image in cache, the POP requests the file from the origin server.

A user requests the image from the CDN URL. The DNS routes the request to the best performing POP location.

Subsequent requests for the file may be directed to the same POP using the CDN logo image URL. The POP edge server returns the file from cache if the TTL has not expired.

The origin server returns the logo image to an edge server in the POP. An edge server in the POP caches the logo image and returns the image to the client.

Answer Area

A user requests the image from the CDN URL. The DNS routes the request to the best performing POP location.



If no edge servers in the POP have the image in cache, the POP requests the file from the origin server.

The origin server returns the logo image to an edge server in the POP. An edge server in the POP caches the logo image and returns the image to the client.



Subsequent requests for the file may be directed to the same POP using the CDN logo image URL. The POP edge server returns the file from cache if the TTL has not expired.

Question #19 Topic 2

You are developing an Azure Cosmos DB solution by using the Azure Cosmos DB SQL API. The data includes millions of documents. Each document may contain hundreds of properties.

The properties of the documents do not contain distinct values for partitioning. Azure Cosmos DB must scale individual containers in the database to meet the performance needs of the application by spreading the workload evenly across all partitions over time.

You need to select a partition key.

Which two partition keys can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. a single property value that does not appear frequently in the documents
- B. a value containing the collection name
- C. a single property value that appears frequently in the documents
- D. a concatenation of multiple property values with a random suffix appended
- E. a hash suffix appended to a property value

Question #20 Topic 2

HOTSPOT -

You are developing an Azure-hosted e-commerce web application. The application will use Azure Cosmos DB to store sales orders. You are using the latest SDK to manage

the sales orders in the database.

You create a new Azure Cosmos DB instance. You include a valid endpoint and valid authorization key to an appSettings.json file in the code project.

You are evaluating the following application code: (Line number are included for reference only.)

```
01 using System;
02 using System.Threading.Tasks;
03 using Microsoft.Azure.Cosmos;
04 using Microsoft.Extensions.Configuration;
05 using Newtonsoft.Json;
06 namespace SalesOrders
07 {
08     public class SalesOrder
09     {
10         ...
11     }
12     internal class ManageSalesOrders
13     {
14         private static async Task GenerateSalesOrders()
15         {
16             IConfigurationRoot configuration = new ConfigurationBuilder().AddJsonFile("appSettings.json").Build();
17             string endpoint = configuration["EndPointUrl"];
18             string authKey = configuration["AuthorizationKey"];
19             using CosmosClient client = new CosmosClient(endpoint, authKey);
20             Database database = null;
21             using (await client.GetDatabase("SalesOrders").DeleteStreamAsync()) { }
22             database = await client.CreateDatabaseIfNotExistsAsync("SalesOrders");
23             Container container1 = await database.CreateContainerAsync(id: "Container1", partitionKeyPath: "/AccountNumber");
24             Container container2 = await database.CreateContainerAsync(id: "Container2", partitionKeyPath: "/AccountNumber");
25             SalesOrder salesOrder1 = new SalesOrder() { AccountNumber = "123456" };
26             await container1.CreateItemAsync(salesOrder1, new PartitionKey(salesOrder1.AccountNumber));
27             SalesOrder salesOrder2 = new SalesOrder() { AccountNumber = "654321" };
28             await container1.CreateItemAsync(salesOrder2, new PartitionKey(salesOrder2.AccountNumber));
29             SalesOrder salesOrder3 = new SalesOrder() { AccountNumber = "109876" };
30             await container2.CreateItemAsync(salesOrder3, new PartitionKey(salesOrder3.AccountNumber));
31             _ = await database.CreateUserAsync("User1");
32             User user1 = database.GetUser("User1");
33             _ = await user1.ReadAsync();
34         }
35     }
36 }
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statements	Yes	No
A database named SalesOrders is created. The database will include two containers.	<input checked="" type="radio"/>	<input type="radio"/>
Container1 will contain two items.	<input checked="" type="radio"/>	<input type="radio"/>
Container2 will contain one item.	<input checked="" type="radio"/>	<input type="radio"/>

Question #21 Topic 2

DRAG DROP -

You develop an Azure solution that uses Cosmos DB.

The current Cosmos DB container must be replicated and must use a partition key that is optimized for queries.

You need to implement a change feed processor solution.

Which change feed processor components should you use? To answer, drag the appropriate components to the correct requirements. Each component 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 the content.

NOTE: Each correct selection is worth one point.

Select and Place:

Components	Answer Area	
Host	Requirement	Component
Delegate	Store the data from which the change feed is generated.	Component
Lease container	Coordinate processing of the change feed across multiple workers.	Component
Monitored container	Use the change feed processor to listen for changes.	Component
	Handle each batch of changes.	Component

Correct

Answer:

Components	Answer Area	Requirement	Component
		Store the data from which the change feed is generated.	Monitored container
		Coordinate processing of the change feed across multiple workers.	Lease container
		Use the change feed processor to listen for changes.	Host
		Handle each batch of changes.	Delegate

Question #1 Topic 3

DRAG DROP -

You develop a web application.

You need to register the application with an active Azure Active Directory (Azure AD) tenant.

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

Correct Answer: sequence 5, 7,4

The correct sequence of steps is 1) Select the Azure AD instance 2) In App registrations, select New registration 3) Create a new application and provide the name, account type and redirect URL

Select and Place:

Actions

Answer Area

Select **Manifest** from the middle-tier service registration.

In Enterprise Applications, select **New application**.

Add a Cryptographic key.

Create a new application and provide the name, account type, and redirect URI.



Select the Azure AD instance.

Use an access token to access the secure resource.

In App Registrations, select **New registration**.



Question #2 Topic 3

You have a new Azure subscription. You are developing an internal website for employees to view sensitive data. The website uses Azure Active Directory (Azure AD) for authentication.

You need to implement multifactor authentication for the website.

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

NOTE: Each correct selection is worth one point.

- A. Configure the website to use Azure AD B2C.
- B. In Azure AD, create a new conditional access policy.
- C. Upgrade to Azure AD Premium.
- D. In Azure AD, enable application proxy.
- E. In Azure AD conditional access, enable the baseline policy.

Question #3 Topic 3

You are developing a Java application that uses Cassandra to store key and value data. You plan to use a new Azure Cosmos DB resource and the Cassandra API in the application. You create an Azure Active Directory (Azure AD) group named Cosmos DB Creators to enable provisioning of Azure Cosmos accounts, databases,

and containers.

The Azure AD group must not be able to access the keys that are required to access the data.

You need to restrict access to the Azure AD group.

Which role-based access control should you use?

- A. DocumentDB Accounts Contributor
- B. Cosmos Backup Operator
- C. **Cosmos DB Operator**
- D. Cosmos DB Account Reader

Question #4 Topic 3

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 are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution: Configure the Azure Web App for the website to allow only authenticated requests and require Azure AD log on.

Does the solution meet the goal?

- A. Yes
- B. No

Question #5 Topic 3

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 are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to

determine the permission level.

You need to configure authorization.

Solution:

⇒ Create a new Azure AD application. In the application's manifest, set value of the groupMembershipClaims option to All.

⇒ In the website, use the value of the groups claim from the JWT for the user to determine permissions.

Does the solution meet the goal?

- A. Yes
- B. No

Question #6 Topic 3

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 are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution:

⇒ Create a new Azure AD application. In the application's manifest, define application roles that match the required permission levels for the application.

⇒ Assign the appropriate Azure AD group to each role. In the website, use the value of the roles claim from the JWT for the user to determine permissions.

Does the solution meet the goal?

- A. Yes
- B. No

Question #7 Topic 3

DRAG DROP -

You are developing an application to securely transfer data between on-premises file systems and Azure Blob storage. The application stores keys, secrets, and certificates in Azure Key Vault. The application uses the Azure Key Vault APIs.

The application must allow recovery of an accidental deletion of the key vault or key

vault objects. Key vault objects must be retained for 90 days after deletion.

You need to protect the key vault and key vault objects.

Which Azure Key Vault feature should you use? To answer, drag the appropriate features to the correct actions. Each feature 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.

Select and Place:

Correct

Answer:

Features	Answer Area	Action	Feature
Access policy		Enable retention period and accidental deletion.	Soft delete
Purge protection			
Soft delete		Enforce retention period and accidental deletion.	Purge protection
Shared access signature			

Question #8Topic 3

You provide an Azure API Management managed web service to clients. The back-end web service implements HTTP Strict Transport Security (HSTS).

Every request to the backend service must include a valid HTTP authorization header.

You need to configure the Azure API Management instance with an authentication policy.

Which **two policies** can you use? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Basic Authentication
- B. Digest Authentication
- C. Certificate Authentication
- D. OAuth Client Credential Grant

Question #9Topic 3

DRAG DROP -

You are developing an ASP.NET Core website that can be used to manage photographs which are stored in Azure Blob Storage containers.

Users of the website authenticate by using their Azure Active Directory (Azure AD) credentials.

You implement role-based access control (RBAC) role permissions on the containers that store photographs. You assign users to RBAC roles.

You need to configure the website's Azure AD Application so that user's permissions can be used with the Azure Blob containers.

How should you configure the application? To answer, drag the appropriate setting to

the correct location. Each setting can 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.

Select and Place:

Correct Answer:	Answer Area									
Settings										
client_id										
profile										
delegated										
application										
user_impersonation										
	<table border="1"><thead><tr><th>API</th><th>Permission</th><th>Type</th></tr></thead><tbody><tr><td>Azure Storage</td><td>user_impersonation</td><td>delegated</td></tr><tr><td>Microsoft Graph</td><td>User.Read</td><td>delegated</td></tr></tbody></table>	API	Permission	Type	Azure Storage	user_impersonation	delegated	Microsoft Graph	User.Read	delegated
API	Permission	Type								
Azure Storage	user_impersonation	delegated								
Microsoft Graph	User.Read	delegated								

Question #10 Topic 3

HOTSPOT -

You are developing an ASP.NET Core app that includes feature flags which are managed by Azure App Configuration. You create an Azure App Configuration store named AppFeatureFlagStore that contains a feature flag named Export.

You need to update the app to meet the following requirements:

- Use the Export feature in the app without requiring a restart of the app.
- Validate users before users are allowed access to secure resources.
- Permit users to access secure resources.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer: 1. UseAuthentication, 2. Use Authorization, 3. UseAzureAppConfiguration.

Hot Area:

Answer Area

```
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{
    if (env.IsDevelopment())
    {
        app.UseDeveloperExceptionPage();
    }
    else
    {
        app.UseExceptionHandler("/Error");
    }

    app.      ();  


|                   |
|-------------------|
| UseAuthentication |
| UseStaticFiles    |
| UseSession        |
| UseCookiePolicy   |

    app.      ();  


|                     |
|---------------------|
| UseAuthorization    |
| UseHttpsRedirection |
| UseSession          |
| UseCookiePolicy     |

    app.      ();  


|                          |
|--------------------------|
| UseAzureAppConfiguration |
| UseRequestLocalization   |
| UseCors                  |
| UseStaticFiles           |

    app.UseEndpoint(endpoints =>
    {
        endpoints.MapRazorPages();
    });
}
```

Question #11 Topic 3

You have an application that includes an Azure Web app and several Azure Function apps. Application secrets including connection strings and certificates are stored in Azure Key Vault.

Secrets must not be stored in the application or application runtime environment. Changes to Azure Active Directory (Azure AD) must be minimized.

You need to design the approach to loading application secrets.
What should you do?

- A. Create a single user-assigned Managed Identity with permission to access Key Vault and configure each App Service to use that Managed Identity.
- B. Create a single Azure AD Service Principal with permission to access Key Vault and use a client secret from within the App Services to access Key Vault.
- C. Create a system assigned Managed Identity in each App Service with permission to access Key Vault.
- D. Create an Azure AD Service Principal with Permissions to access Key Vault for each App Service and use a certificate from within the App Services to access Key Vault.

Question #12 Topic 3

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 are developing a medical records document management website. The website is used to store scanned copies of patient intake forms.

If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised.

You need to store the intake forms according to the requirements.

Solution:

1. Create an Azure Key Vault key named skey.
2. Encrypt the intake forms using the public key portion of skey.
3. Store the encrypted data in Azure Blob storage.

Does the solution meet the goal?

- A. Yes
- B. No

Question #13 Topic 3

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 are developing a medical records document management website. The website is used to store scanned copies of patient intake forms.

If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised.

You need to store the intake forms according to the requirements.

Solution:

1. Create an **Azure Cosmos DB database** with Storage Service Encryption enabled.
2. Store the intake forms in the Azure Cosmos DB database.

Does the solution meet the goal?

- A. Yes
- B. No

Question #14 Topic 3

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 are developing a medical records document management website. The website is used to store scanned copies of patient intake forms.

If the stored intake forms are downloaded from storage by a third party, the contents of the forms must not be compromised.

You need to store the intake forms according to the requirements.

Solution: Store the intake forms as Azure Key Vault secrets.

Does the solution meet the goal?

- A. Yes
- B. No

Question #15 Topic 3

HOTSPOT -

You plan to deploy a new application to a Linux virtual machine (VM) that is hosted in Azure.

The entire VM must be secured at rest by using industry-standard encryption technology to address organizational security and compliance requirements.

You need to configure Azure Disk Encryption for the VM.

How should you complete the Azure CLI commands? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer Area

```
az provider register -n Microsoft.KeyVault  
resourcegroup="myResourceGroup"  
az group create --name $resourcegroup --location westus  
keyvault_name=myvaultname$RANDOM  
  
az [▼] create \  
  vm  
  keyvault  
  keyvault key  
  vm encryption  
  
  --name $keyvault_name \  
  --resource-group $resourcegroup \  
  --location eastus \  
  --enabled-for-disk-encryption True  
  
az [▼] create \  
  vm  
  keyvault  
  keyvault key  
  vm encryption  
  
  --vault-name $keyvault_name \  
  --name Name1 \  
  --protection software  
  
az [▼] create \  
  vm  
  keyvault  
  keyvault key  
  vm encryption  
  
  --resource-group $resourcegroup \  
  --name Name2 \  
  --image Canonical:UbuntuServer:16.04-LTS:latest \  
  --admin-username azureuser \  
  --generate-ssh-keys \  
  --data-disk-sizes-gb 5  
  
az [▼] enable\  
  vm  
  keyvault  
  keyvault key  
  vm encryption  
  
  --resource-group $resourcegroup \  
  --name Name2 \  
  --disk-encryption-keyvault $keyvault_name \  
  --key-encryption-key Name1 \  
  --volume-type [▼]  
    all  
    data  
    os
```

Answer:

Question #16 Topic 3

Your company is developing an Azure API hosted in Azure.

You need to implement authentication for the Azure API to access other Azure resources. You have the following requirements:

- ⇒ All API calls must be authenticated.
- ⇒ Callers to the API must not send credentials to the API.

Which authentication mechanism should you use?

- A. Basic
- B. Anonymous
- C. Managed identity
- D. Client certificate

Question #17 Topic 3

DRAG DROP -

You are developing an application. You have an Azure user account that has access to two subscriptions.

You need to retrieve a storage account key secret from Azure Key Vault.

In which order should you arrange the PowerShell commands to develop the solution?

To answer, move all commands from the list of commands to the answer area and arrange them in the correct order.

Select and Place:

Correct

Answer:

Powershell commands

```
$secretvalue = ConvertTo-SecureString  
$storAcctkey -AsPlainText  
-Force  
Set-AzKeyVaultSecret -VaultName  
$vaultName -Name $secretName  
-SecretValue $secretvalue
```

```
Get-AzStorageAccountKey -  
ResourceGroupName $resGroup -Name  
$storAcct
```

```
Set-AzContext -SubscriptionId  
$subscriptionID
```

```
Get-AzKeyVaultSecret -VaultName  
$vaultName
```

```
Get-AzSubscription
```

Answer Area

```
Get-AzSubscription
```

```
Set-AzContext -SubscriptionId  
$subscriptionID
```

```
Get-AzStorageAccountKey -  
ResourceGroupName $resGroup -Name  
$storAcct
```

```
$secretvalue = ConvertTo-SecureString  
$storAcctkey -AsPlainText  
-Force  
Set-AzKeyVaultSecret -VaultName  
$vaultName -Name $secretName  
-SecretValue $secretvalue
```

```
Get-AzKeyVaultSecret -VaultName  
$vaultName
```



Question #18 Topic 3

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 develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

Solution: Use an X.509 certificate to authenticate the VM with Azure Resource Manager.

Does the solution meet the goal?

- A. Yes
- B. No

Question #19 Topic 3

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 develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

Solution: Use the **Reader role-based access control (RBAC) role** to authenticate the VM with Azure Resource Manager.

Does the solution meet the goal?

- A. Yes
- B. No

Question #20 Topic 3

HOTSPOT -

You are building a website that is used to review restaurants. The website will use an Azure CDN to improve performance and add functionality to requests.

You build and deploy a mobile app for Apple iPhones. Whenever a user accesses the website from an iPhone, the user must be redirected to the app store.

You need to implement an Azure CDN rule that ensures that iPhone users are redirected to the app store.

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

NOTE: Each correct selection is worth one point.

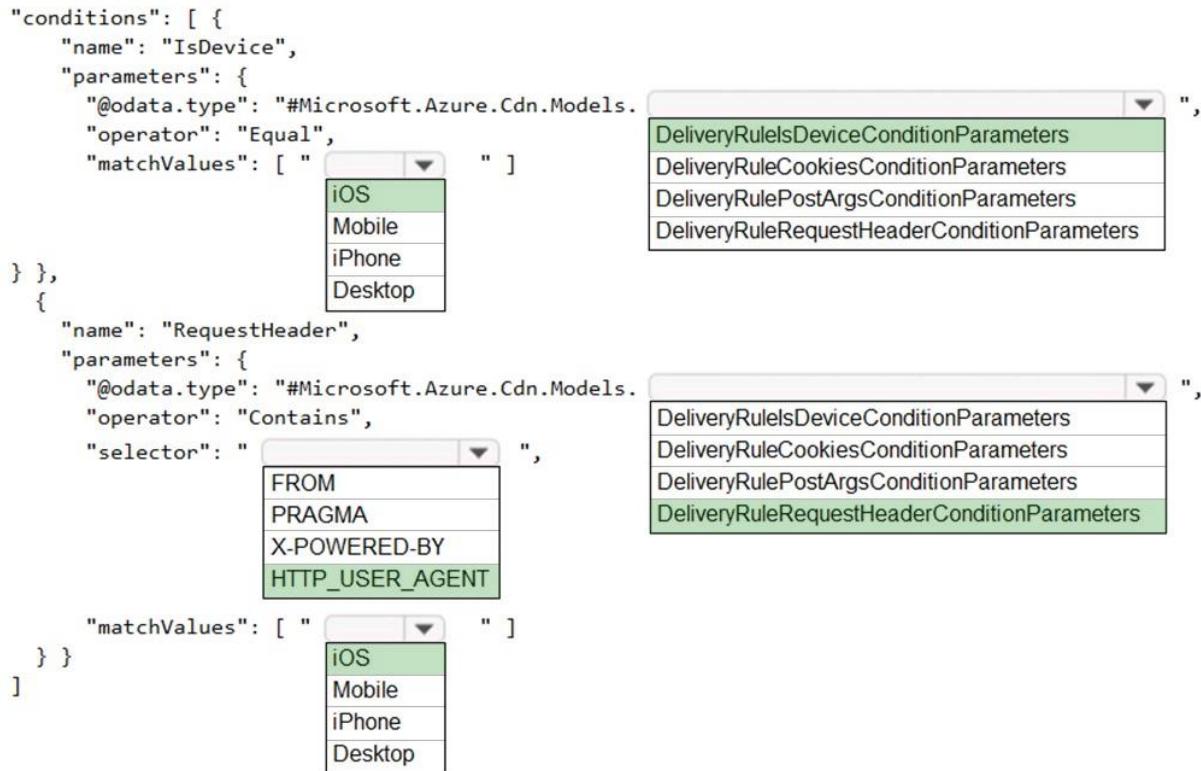
Hot Area:

Correct

Answer:

Answer Area

```
"conditions": [ {
  "name": "IsDevice",
  "parameters": {
    "@odata.type": "#Microsoft.Azure.Cdn.Models."
  },
  "operator": "Equal",
  "matchValues": [ "iOS", "Mobile", "iPhone", "Desktop" ]
},
{
  "name": "RequestHeader",
  "parameters": {
    "@odata.type": "#Microsoft.Azure.Cdn.Models."
  },
  "operator": "Contains",
  "selector": "HTTP_USER_AGENT",
  "matchValues": [ "iOS", "Mobile", "iPhone", "Desktop" ]
}]
```



Question #21 Topic 3

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 are developing a website that will run as an Azure Web App. Users will authenticate by using their Azure Active Directory (Azure AD) credentials.

You plan to assign users one of the following permission levels for the website: admin, normal, and reader. A user's Azure AD group membership must be used to determine the permission level.

You need to configure authorization.

Solution:

- ☞ Configure and use Integrated Windows Authentication in the website.
- ☞ In the website, query Microsoft Graph API to load the group to which the user is a member.

Does the solution meet the goal?

- A. Yes
- B. No

Question #22 Topic 3

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 develop Azure solutions.

You must grant a virtual machine (VM) access to specific resource groups in Azure Resource Manager.

You need to obtain an Azure Resource Manager access token.

Solution: Run the Invoke-RestMethod cmdlet to make a request to the local managed identity for Azure resources endpoint.

Does the solution meet the goal?

- A. Yes
- B. No

Question #23 Topic 3

HOTSPOT -

You are building a website to access project data related to teams within your organization. The website does not allow anonymous access. Authentication is performed using an Azure Active Directory (Azure AD) app named internal.

The website has the following authentication requirements:

- ⇒ Azure AD users must be able to login to the website.
- ⇒ Personalization of the website must be based on membership in Active Directory groups.

You need to configure the application's manifest to meet the authentication requirements.

How should you configure the manifest? To answer, select the appropriate configuration in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct ans sequence: 1) groupMembershipClaims 2) oauth2AllowImplicitFlow

Answer Area

```
{  
    ...  
    "appId": "d61126e3-089b-4adb-b721-d5023213df7d",  
    "displayName": "internal",  
    "optionalClaims": ["All"],  
    "groupMembershipClaims": ["groupMembershipClaims"]  
    "allowPublicClient": true  
    "oauth2Permissions": ["allowImplicitFlow"]  
    "requiredResourceAccess": ["requiredResourceAccess"]  
    "oauth2AllowImplicitFlow": true  
    ...  
}
```

Correct Answer:

Question #24 Topic 3

You develop an app that allows users to upload photos and videos to Azure storage. The app uses a storage REST API call to upload the media to a blob storage account named Account1. You have blob storage containers named Container1 and Container2. Uploading of videos occurs on an irregular basis.

You need to copy specific blobs from Container1 to Container2 when a new video is uploaded.

What should you do?

- A. Copy blobs to Container2 by using the Put Blob operation of the Blob Service REST API
- B. Create an Event Grid topic that uses the Start-AzureStorageBlobCopy cmdlet
- C. Use AzCopy with the Snapshot switch to copy blobs to Container2
- D. Download the blob to a virtual machine and then upload the blob to Container2

Question #25 Topic 3

You are developing an ASP.NET Core website that uses Azure FrontDoor. The website is used to build custom weather data sets for researchers. Data sets are downloaded by users as Comma Separated Value (CSV) files. The data is refreshed every 10 hours. Specific files must be purged from the FrontDoor cache based upon Response Header values.

You need to purge individual assets from the Front Door cache.
Which type of cache purge should you use?

- A. single path
- B. wildcard
- C. root domain

Question #26 Topic 3

Your company is developing an Azure API.

You need to implement authentication for the Azure API. You have the following requirements:

All API calls must be secure.

▪ ☈ Callers to the API must not send credentials to the API.

Which authentication mechanism should you use?

- A. Basic
- B. Anonymous
- C. Managed identity
- D. Client certificate

Question #27 Topic 3

You are a developer for a SaaS company that offers many web services.

All web services for the company must meet the following requirements:

cox Use API Management to access the services

cox Use OpenID Connect for authentication

cox Prevent anonymous usage

A recent security audit found that several web services can be called without any authentication.

Which API Management policy should you implement?

- A. jsonp
- B. authentication-certificate
- C. check-header
- D. validate-jwt

Question #28 Topic 3

DRAG DROP -

Contoso, Ltd. provides an API to customers by using Azure API Management (APIM).

The API authorizes users with a JWT token.

You must implement response caching for the APIM gateway. The caching mechanism must detect the user ID of the client that accesses data for a given location and cache the response for that user ID.

You need to add the following policies to the policies file:

- ⇒ a set-variable policy to store the detected user identity
- ⇒ a cache-lookup-value policy
- ⇒ a cache-store-value policy
- ⇒ a find-and-replace policy to update the response body with the user profile information

To which policy section should you add the policies? To answer, drag the appropriate sections to the correct policies. Each section 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.

Select and Place:

Correct

Answer:

Answer Area

Policy section	Policy	Policy section
	Set-variable	Inbound
Inbound	Cache-lookup-value	Inbound
Outbound	Cache-store-value	Outbound
	Find-and-replace	Outbound

Question #29 Topic 3

DRAG DROP -

You are developing an Azure solution.

You need to develop code to access a secret stored in Azure Key Vault.

How should you complete the code segment? To answer, drag the appropriate code segments to the correct location. Each code segment 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.

Select and Place:

Correct

Answer:

Code segments

ClientSecretCredential
CloudClients

Answer Area

```
string var1 = Environment.GetEnvironmentVariable("KEY_VAULT_URI");
var var2 = new SecretClient ( new Uri(var1), new DefaultAzureCredential () );
```

Question #30 Topic 3

You are developing an Azure App Service REST API.

The API must be called by an Azure App Service web app. The API must retrieve and update user profile information stored in Azure Active Directory (Azure AD).

You need to configure the API to make the updates.

Which two tools should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Microsoft Graph API
- B. Microsoft Authentication Library (MSAL)
- C. Azure API Management
- D. Microsoft Azure Security Center
- E. Microsoft Azure Key Vault SDK

Question #31 Topic 3

You develop a REST API. You implement a user delegation SAS token to communicate with Azure Blob storage.

The token is compromised.

You need to revoke the token.

What are **two possible ways** to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Revoke the delegation key.
- B. Delete the stored access policy.

- C. Regenerate the account key.
- D. Remove the role assignment for the security principle.

Question #32 Topic 3

DRAG DROP -

You are developing an Azure-hosted application that must use an on-premises hardware security module (HSM) key.

The key must be transferred to your existing Azure Key Vault by using the Bring Your Own Key (BYOK) process.

You need to securely transfer the key to Azure Key Vault.

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.

Select and Place:

Actions

Generate a key transfer blob file by using the HSM vendor-provided tool.

Generate a Key Exchange Key (KEK).

Create a custom policy definition in Azure Policy.

Run the `az keyvault key import` command.

Run the `az keyvault key restore` command.

Retrieve the Key Exchange Key (KEK) public key.

Answer Area

Correct

Answer:

Actions

Create a custom policy definition in Azure Policy.

Run the `az keyvault key restore` command.

Answer Area

Generate a Key Exchange Key (KEK).

Retrieve the Key Exchange Key (KEK) public key.

Generate a key transfer blob file by using the HSM vendor-provided tool.

Run the `az keyvault key import` command.

Question #33 Topic 3

You develop and deploy an Azure Logic app that calls an Azure Function app. The Azure Function app includes an OpenAPI (Swagger) definition and uses an Azure Blob storage account. All resources are secured by using Azure Active Directory (Azure AD).

The Azure Logic app must securely access the Azure Blob storage account. Azure AD resources must remain if the Azure Logic app is deleted.

You need to secure the Azure Logic app.

What should you do?

- A. Create a user-assigned managed identity and assign role-based access controls.
- B. Create an Azure AD custom role and assign the role to the Azure Blob storage account.
- C. Create an Azure Key Vault and issue a client certificate.
- D. Create a system-assigned managed identity and issue a client certificate.
- E. Create an Azure AD custom role and assign role-based access controls.

Question #34 Topic 3

HOTSPOT -

You are developing an application that uses a premium block blob storage account. You are optimizing costs by automating Azure Blob Storage access tiers.

You apply the following policy rules to the storage account. You must determine the implications of applying the rules to the data. (Line numbers are included for reference only.)

```
01 {
02   "rules": [
03     {
04       "name": "agingDataRule",
05       "enabled": true,
06       "type": "Lifecycle",
07       "definition": {
08         "filters": {
09           "blobTypes": [ "blockBlob" ],
10           "prefixMatch": [ "container1/salesorders", "container2/inventory" ]
11         },
12         "actions": {
13           "baseBlob": {
14             "tierToCool": { "daysAfterModificationGreaterThan": 60 },
15             "tierToArchive": { "daysAfterModificationGreaterThan": 120 }
16           }
17         }
18       }
19     },
20     {
21       "enabled": true,
22       "name": "lastAccessedDataRule",
23       "type": "Lifecycle",
24       "definition": {
25         "actions": {
26           "baseBlob": {
27             "enableAutoTierToHotFromCool": true,
28             "tierToCool": {
29               "daysAfterLastAccessTimeGreaterThan": 30
30             }
31           }
32         },
33         "filters": {
34           "blobTypes": [ "blockBlob" ]
35         }
36       }
37     },
38     {
39       "rules": [
40         {
41           "name": "expirationDataRule",
42           "enabled": true,
43           "type": "Lifecycle",
44           "definition": {
45             "filters": {
46               "blobTypes": [ "blockBlob" ]
47             },
48             "actions": {
49               "baseBlob": {
50                 "delete": { "daysAfterModificationGreaterThan": 730 }
51               }
52             }
53           }
54         }
55       ]
56     }
57   ]
58 }
```

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

Hot Area:

**Correct
Answer:
Answer Area**

	Yes	No
Block blobs prefixed with container1/salesorders or container2/inventory which have not been modified in over 60 days are moved to cool storage. Blobs that have not been modified in 120 days are moved to the archive tier.	<input checked="" type="radio"/>	<input type="radio"/>
Blobs are moved to cool storage if they have not been accessed for 30 days.	<input checked="" type="radio"/>	<input type="radio"/>
Blobs will automatically be tiered from cool back to hot if accessed again after being tiered to cool.	<input checked="" type="radio"/>	<input type="radio"/>
All block blobs older than 730 days will be deleted.	<input checked="" type="radio"/>	<input type="radio"/>

Question #35 Topic 3

You are developing a solution that will use a multi-partitioned Azure Cosmos DB database. You plan to use the latest Azure Cosmos DB SDK for development.

The solution must meet the following requirements:

- ☞ Send insert and update operations to an Azure Blob storage account.
- ☞ Process changes to all partitions immediately.
- ☞ Allow parallelization of change processing.

You need to process the Azure Cosmos DB operations.

What are **two possible ways** to achieve this goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Create an Azure App Service API and implement the change feed estimator of the SDK. Scale the API by using multiple Azure App Service instances.
- B. Create a background job in an Azure Kubernetes Service and implement the change feed feature of the SDK.
- C. Create an Azure Function to use a trigger for Azure Cosmos DB. Configure the trigger to connect to the container.
- D. Create an Azure Function that uses a FeedIterator object that processes the change feed by using the pull model on the container. Use a FeedRange object to parallelize the processing of the change feed across multiple functions.

Question #36 Topic 3

HOTSPOT -

You have an Azure Web app that uses Cosmos DB as a data store. You create a CosmosDB container by running the following PowerShell script:

```
$resourceGroupName = "testResourceGroup"  
$accountName = "testCosmosAccount"  
$databaseName = "testDatabase"  
$containerName = "testContainer"  
$partitionKeyPath = "/EmployeeId"  
$autoscaleMaxThroughput = 5000
```

```
New-AzCosmosDBSqlContainer -  
-ResourceGroupName $resourceGroupName  
-AccountName $accountName  
-DatabaseName $databaseName  
-Name $containerName  
-PartitionKeyKind Hash  
-PartitionKeyPath $partitionKeyPath  
-AutoscaleMaxThroughput $autoscaleMaxThroughput
```

You create the following queries that target the container:

```
SELECT * FROM c WHERE c.EmployeeId > '12345'  
SELECT * FROM c WHERE c.UserID = '12345'
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Yes	No
<input type="radio"/>	<input checked="" type="radio"/>
<input type="radio"/>	<input checked="" type="radio"/>
<input checked="" type="radio"/>	<input type="radio"/>

The minimum throughput for the container is 400 R/Us.

The first query statement is an in-partition query.

The second query statement is a cross-partition query.

Question #37 Topic 3

HOTSPOT -

You are developing a web application that makes calls to the Microsoft Graph API. You register the application in the Azure portal and upload a valid X509 certificate.

You create an appsettings.json file containing the certificate name, client identifier for the application, and the tenant identifier of the Azure Active Directory (Azure AD). You create a method named ReadCertificate to return the X509 certificate by

name.

You need to implement code that acquires a token by using the certificate.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

```
AuthenticationConfig config = AuthenticationConfig.ReadFromJsonFile("appsettings.json");
X509Certificate2 certificate = ReadCertificate(config.CertificateName);
var app = ConfidentialClientApplicationBuilder
    .Create(config.ClientId)
    .WithCertificate(certificate)
    .WithAuthority(new Uri(config.Authority))
    .Build();
string[] scopes = new string[] { $"{config.ApiUrl}.default" };
AuthenticationResult result = await app.AcquireTokenForClient(
    scopes
).ExecuteAsync();
```

Question #1 Topic 4

You are developing an ASP.NET Core Web API web service. The web service uses Azure Application Insights for all telemetry and dependency tracking. The web service reads and writes data to a database other than Microsoft SQL Server.

You need to ensure that dependency tracking works for calls to the third-party database.

Which two dependency telemetry properties should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Telemetry.Context.Cloud.RoleInstance
- B. Telemetry.Id
- C. Telemetry.Name
- D. Telemetry.Context.Operation.Id
- E. Telemetry.Context.Session.Id

Question #2 Topic 4

HOTSPOT -

You are using Azure Front Door Service.

You are expecting inbound files to be compressed by using Brotli compression. You discover that inbound XML files are not compressed. The files are 9 megabytes (MB) in size.

You need to determine the root cause for the issue.

To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answer: Yes, No, Yes.

Hot Area:

Answer Area

Statement	Yes	No
The file MIME type is supported by the service.	<input type="radio"/>	<input type="radio"/>
Edge nodes must be purged of all cache assets.	<input type="radio"/>	<input type="radio"/>
The compression type is supported.	<input type="radio"/>	<input type="radio"/>

Question #3 Topic 4

HOTSPOT -

You are developing an Azure App Service hosted ASP.NET Core web app to deliver video-on-demand streaming media. You enable an Azure Content Delivery Network (CDN) Standard for the web endpoint. Customer videos are downloaded from the web app by using the following example URL: <http://www.contoso.com/content.mp4?quality=1>

All media content must expire from the cache after one hour. Customer videos with varying quality must be delivered to the closest regional point of presence (POP) node.

You need to configure Azure CDN caching rules.

Which options should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Setting	Action
Caching behavior	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><p>Bypass cache</p><p>Override</p><p>Set if missing</p></div>
Cache expiration duration	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><p>1 second</p><p>1 minute</p><p>1 hour</p><p>1 day</p></div>
Query string caching behavior	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><p>Ignore query strings</p><p>Bypass caching for query strings</p><p>Cache every unique URL</p></div>

Question #4 Topic 4

DRAG DROP -

You develop a web app that uses tier D1 app service plan by using the Web Apps feature of Microsoft Azure App Service.

Spikes in traffic have caused increases in page load times.

You need to ensure that the web app automatically scales when CPU load is about 85 percent and minimize costs.

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.

NOTE: More than one order of answer choices is correct. You will receive credit for any of the correct orders you select.

Select and Place:

Correct
Answer:

Actions	Answer Area
Configure the web app to the Premium App Service tier.	Configure the web app to the Standard App Service tier.
Configure the web app to the Standard App Service tier.	Enable autoscaling on the web app.
Enable autoscaling on the web app.	Add a Scale rule.
Add a Scale rule.	Configure a Scale condition.
Switch to an Azure App Services consumption plan.	
Configure a Scale condition.	

Question #5 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You are developing and deploying several ASP.NET web applications to Azure App Service. You plan to save session state information and HTML output.

You must use a storage mechanism with the following requirements:

- Share session state across all ASP.NET web applications.
- Support controlled, concurrent access to the same session state data for multiple readers and a single writer.
- Save full HTTP responses for concurrent requests.

You need to store the information.

Proposed Solution: Enable Application Request Routing (ARR).

Does the solution meet the goal?

- A. Yes
- B. No

Question #6 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You are developing and deploying several ASP.NET web applications to Azure App Service. You plan to save session state information and HTML output.

You must use a storage mechanism with the following requirements:

- Share session state across all ASP.NET web applications.
- Support controlled, concurrent access to the same session state data for multiple readers and a single writer.
- Save full HTTP responses for concurrent requests.

You need to store the information.

Proposed Solution: Deploy and configure an Azure Database for PostgreSQL. Update the web applications.

Does the solution meet the goal?

- A. Yes
- B. No

Question #7 Topic 4

HOTSPOT -

A company is developing a gaming platform. Users can join teams to play online and see leaderboards that include player statistics. The solution includes an entity named Team.

You plan to implement an Azure Redis Cache instance to improve the efficiency of data operations for entities that rarely change.

You need to invalidate the cache when team data is changed.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answers: Box 1: IDatabase cache = Connection.GetDatabase(); Box 2: cache.KeyDelete("teams")

Hot Area:

Answer Area

```
void ClearCachedTeams()
```

```
{
```

```
IDatabase cache = Connection.GetDatabase();  
ICache cache = Connection.GetDatabase();
```

```
cache.KeyDelete("Team");  
cache.StringSet("Team", "");  
cache.ValueDelete("Team");  
cache.StringGet("Team", "");
```

```
ViewBag.msg += "Team data removed from cache.";
```

```
}
```

Question #8 Topic 4

DRAG DROP -

A company has multiple warehouses. Each warehouse contains IoT temperature devices which deliver temperature data to an Azure Service Bus queue.

You need to send email alerts to facility supervisors immediately if the temperature at a warehouse goes above or below specified threshold temperatures.

Which **five 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.
Select and Place:

Correct Answer: sequence – 7,1, 8,6,3

Select and Place:

Actions

Add a logic app trigger that fires when one or more messages arrive in the queue.

Add a Recurrence trigger that schedules the app to run every 15 minutes.

Add an action that sends an email to specified personnel if the temperature is outside of those thresholds.

Add a trigger that reads IoT temperature data from a Service Bus queue.

Add a logic app action that fires when one or more messages arrive in the queue.

Add a condition that compares the temperature against the upper and lower thresholds.

Create a blank Logic app.

Add an action that reads IoT temperature data from the Service Bus queue.

Answer Area

Question #9 Topic 4

DRAG DROP -

You develop an ASP.NET Core MVC application. You configure the application to track webpages and custom events.

You need to identify trends in application usage.

Which Azure Application Insights Usage Analysis features should you use? To answer, drag the appropriate features to the correct requirements. Each feature 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.

Select and Place:

Correct ans sequence: 1.Funnels 2.Impact 3.Retention 4.User flow

Select and Place:

Features

- Users
- Funnels
- Impact
- Retention
- User Flows

Answer Area

Requirement

Which pages visited by users most often correlate to a product purchase?

How does load time of the product display page affect a user's decision to purchase a product?

Which events most influence a user's decision to continue to use the application?

Are there places in the application that users often perform repetitive actions?

Feature

Feature

Feature

Feature

Question #10 Topic 4

You develop a gateway solution for a public facing news API. The news API back end is implemented as a RESTful service and uses an OpenAPI specification.

You need to ensure that you can access the news API by using an Azure API Management service instance.

Which Azure PowerShell command should you run?

- A. Import-AzureRmApiManagementApi -Context \$ApiMgmtContext -SpecificationFormat "Swagger" -SpecificationPath \$SwaggerPath -Path \$Path
- B. New-AzureRmApiManagementBackend -Context \$ApiMgmtContext-Url \$Url -Protocol http
- C. New-AzureRmApiManagement -ResourceGroupName \$ResourceGroup -Name \$Name -Location \$Location -Organization \$Org -AdminEmail \$AdminEmail
- D. New-AzureRmApiManagementBackendProxy -Url \$ApiUrl

Question #11 Topic 4

You are creating a hazard notification system that has a single signaling server which triggers audio and visual alarms to start and stop.

You implement Azure Service Bus to publish alarms. Each alarm controller uses Azure Service Bus to receive alarm signals as part of a transaction. Alarm events must be recorded for audit purposes. Each transaction record must include information about the alarm type that was activated.

You need to implement a reply trail auditing solution.

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

NOTE: Each correct selection is worth one point.

- A. Assign the value of the hazard message SessionID property to the **ReplyToSessionId** property.
- B. Assign the value of the hazard message MessageId property to the **DeliveryCount** property.
- C. Assign the value of the hazard message SessionID property to the **SequenceNumber** property.
- D. Assign the value of the hazard message MessageId property to the **CorrelationId** property.
- E. Assign the value of the hazard message SequenceNumber property to the **DeliveryCount** property.
- F. Assign the value of the hazard message MessageId property to the **SequenceNumber** property.

Question #12 Topic 4

You are developing an Azure function that connects to an Azure SQL Database instance. The function is triggered by an Azure Storage queue.

You receive reports of numerous System.InvalidOperationExceptions with the following message:

Timeout expired. The timeout period elapsed prior to obtaining a connection from the pool. This may have occurred because all pooled connections were in use and max pool size was reached.

You need to prevent the exception.

What should you do?

- A. In the host.json file, decrease the value of the batchSize option
- B. Convert the trigger to Azure Event Hub
- C. Convert the Azure Function to the Premium plan
- D. In the function.json file, change the value of the type option to queueScaling

Question #13 Topic 4

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution. Determine whether the solution meets the stated goals.

You are developing and deploying several ASP.NET web applications to Azure App Service. You plan to save session state information and HTML output.

You must use a storage mechanism with the following requirements:

- ☞ Share session state across all ASP.NET web applications.
- ☞ Support controlled, concurrent access to the same session state data for multiple readers and a single writer.
- ☞ Save full HTTP responses for concurrent requests.

You need to store the information.

Proposed Solution: Deploy and configure Azure Cache for Redis. Update the web applications.

Does the solution meet the goal?

- A. Yes
- B. No

Question #14 Topic 4

HOTSPOT -

You are debugging an application that is running on Azure Kubernetes cluster named cluster1. The cluster uses Azure Monitor for containers to monitor the cluster.

The application has sticky sessions enabled on the ingress controller.

Some customers report a large number of errors in the application over the last 24 hours.

You need to determine on which virtual machines (VMs) the errors are occurring.

How should you complete the Azure Monitor query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer Area

```
let startTimestamp =
```

ago(1d)
since(1d)
totimespan(1d)
date(now() - 1d)

```
let ContainerIDs = KubePodInventory  
| where ClusterName == "Cluster1"
```

top ContainerID
union ContainerID
sample ContainerID
distinct ContainerID

ContainerLog

fork containerIDs
where ContainerID in (ContainerIDs)
restrict ContainerID in (ContainerIDs)
join ContainerID == ContainerIDs.ContainerID

```
| where TimeGenerated > startTimestamp  
| where LogEntrySource == "stderr"
```

project by Computer
summarize by Computer
partition count() by Computer
summarize count() by Computer

Answer:

Question #15 Topic 4

HOTSPOT -

You plan to deploy a web app to App Service on Linux. You create an App Service plan. You create and push a custom Docker image that contains the web app to Azure Container Registry.

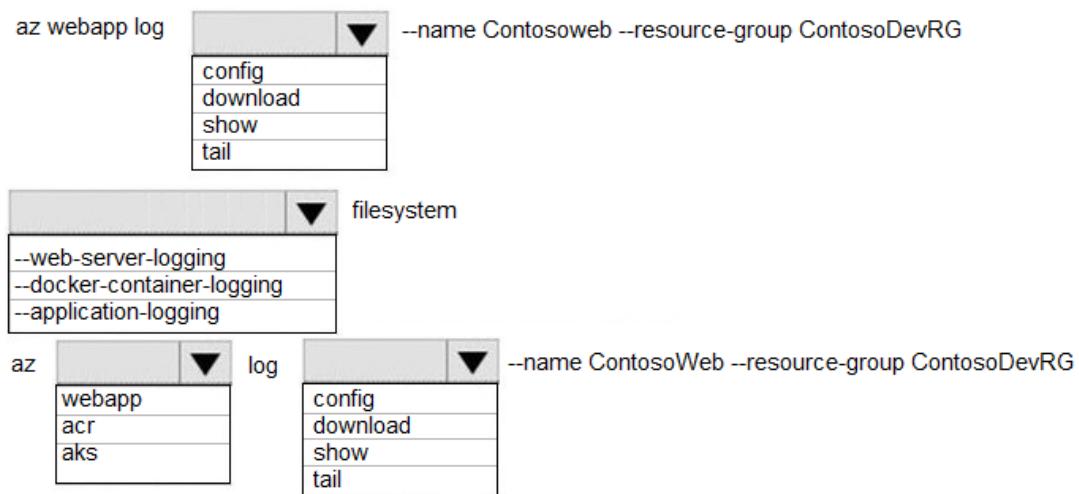
You need to access the console logs generated from inside the container in real-time. How should you complete the Azure CLI command? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct Answers are: config ->docker-container-logging ->webapp ->tail

Answer Area



Question #16 Topic 4

You develop and deploy an ASP.NET web app to Azure App Service. You use Application Insights telemetry to monitor the app.

You must test the app to ensure that the app is available and responsive from various points around the world and at regular intervals. If the app is not responding, you must send an alert to support staff.

You need to configure a test for the web app.

Which **two test types** can you use? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

- A. integration
- B. multi-step web
- C. URL ping
- D. unit
- E. load

Question #17 Topic 4

DRAG DROP -

A web service provides customer summary information for e-commerce partners. The web service is implemented as an Azure Function app with an HTTP trigger.

Access to the API is provided by an Azure API Management instance. The API Management instance is configured in consumption plan mode. All API calls are authenticated by using OAuth.

API calls must be cached. Customers must not be able to view cached data for other customers.

You need to configure API Management policies for caching.

How should you complete the policy statement?

Select and Place: External Private Authorization

Correct Answer: External -> Private -> Authorization

Select and Place:

Targets	Answer Area
Expect	<policies>
Public	<inbound>
Private	<base />
Internal	<cache-lookup caching-type="
External	Target
Authorization	" downstream-caching-type = " Target "
	>
	<vary-by-header>
	Target
	</vary-by-header>
	</cache-lookup>
	</inbound>
	</policies>

Question #18 Topic 4

You are developing applications for a company. You plan to host the applications on Azure App Services.

The company has the following requirements:

- Every five minutes verify that the websites are responsive.
 - Verify that the websites respond within a specified time threshold. Dependent requests such as images and JavaScript files must load properly.
 - Generate alerts if a website is experiencing issues.
 - If a website fails to load, the system must attempt to reload the site three more times.
- You need to implement this process with the least amount of effort.

What should you do?

- A. Create a Selenium web test and configure it to run from your workstation as a scheduled task.
- B. Set up a URL ping test to query the home page.
- C. Create an Azure function to query the home page.
- D. Create a multi-step web test to query the home page.
- E. Create a Custom Track Availability Test to query the home page.

Question #19 Topic 4

You develop and add several functions to an Azure Function app that uses the latest runtime host. The functions contain several REST API endpoints secured by using SSL. The Azure Function app runs in a Consumption plan.

You must send an alert when any of the function endpoints are unavailable or responding too slowly.

You need to monitor the availability and responsiveness of the functions.
What should you do?

- A. Create a URL ping test.
- B. Create a timer triggered function that calls `TrackAvailability()` and send the results to Application Insights.
- C. Create a timer triggered function that calls `GetMetric("Request Size")` and send the results to Application Insights.
- D. Add a new diagnostic setting to the Azure Function app. Enable the `FunctionAppLogs` and `Send to Log Analytics` options.

Question #20 Topic 4

DRAG DROP -

You are developing an application to retrieve user profile information. The application will use the Microsoft Graph SDK.

The app must retrieve user profile information by using a Microsoft Graph API call.

You need to call the Microsoft Graph API from the application.

In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Create an authentication provider.	
Create a new instance of the <code>GraphServiceClient</code> .	
Invoke the request to the Microsoft Graph API.	
Register the application with the Microsoft identity platform.	
Build a client by using the client app ID.	

◀

▶

↑

↓

Correct

Answer:

Actions	Answer Area
	Register the application with the Microsoft identity platform.
	Build a client by using the client app ID.
◀	Create an authentication provider.
▶	Create a new instance of the <code>GraphServiceClient</code> .
	Invoke the request to the Microsoft Graph API.

Question #21 Topic 4

DRAG DROP -

You develop and deploy an Azure Logic App that calls an Azure Function app. The Azure Function App includes an OpenAPI (Swagger) definition and uses an Azure Blob storage account. All resources are secured by using Azure Active Directory (Azure AD).

The Logic App must use Azure Monitor logs to record and store information about runtime data and events. The logs must be stored in the Azure Blob storage account. You need to set up Azure Monitor logs and collect diagnostics data for the Azure Logic App.

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. Select and Place:

Actions	Answer Area
Create action groups and alert rules.	
Create a Log Analytics workspace.	
Install the Logic Apps Management solution.	
Add a diagnostic setting to the Azure Function App.	
Create an Azure storage account.	
Add a diagnostic setting to the Azure Logic App.	

◀ ▶

↑ ↓

Correct

Answer:

Actions	Answer Area
Create action groups and alert rules.	
Add a diagnostic setting to the Azure Function App.	
Create an Azure storage account.	

◀ ▶

↑ ↓

Question #22 Topic 4

DRAG DROP -

You develop an application. You plan to host the application on a set of virtual machines (VMs) in Azure.

You need to configure Azure Monitor to collect logs from the application. 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. Select and Place:

Actions	Answer Area
Create a Log Analytics workspace.	
Install agents on the VM and VM scale set to be monitored.	
Send console logs.	
Add a VMInsights solution.	
Create an Application Insights resource.	

Correct Answer:

Actions	Answer Area
	Create a Log Analytics workspace.
	Add a VMInsights solution.
Send console logs.	Install agents on the VM and VM scale set to be monitored.
	Create an Application Insights resource.

Question #1 Topic 5

DRAG DROP -

You have an application that provides weather forecasting data to external partners. You use Azure API Management to publish APIs.

You must change the behavior of the API to meet the following requirements:

- Support alternative input parameters
- Remove formatting text from responses
- Provide additional context to back-end services

Which types of policies should you implement? To answer, drag the policy types to the correct scenarios. Each policy type 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.

Select and Place:

Correct

Answer:

Policy types	Answer Area	Policy type
Inbound	Requirement Rewrite the request URL to match to the format expected by the web service.	Inbound
Outbound	Requirement Remove formatting text from responses.	Outbound
Backend	Requirement Forward the user ID that is associated with the subscription key for the original request to the back-end service.	Inbound

Question #2 Topic 5

You are developing an e-commerce solution that uses a microservice architecture. You need to design a communication backplane for communicating transactional messages between various parts of the solution. Messages must be communicated in **first-in-first-out (FIFO) order**.

What should you use?

- A. Azure Storage Queue
- B. Azure Event Hub
- C. **Azure Service Bus**
- D. Azure Event Grid

Question #3 Topic 5

DRAG DROP -

A company backs up all manufacturing data to Azure Blob Storage. Admins move blobs from hot storage to archive tier storage every month.

You must automatically move blobs to Archive tier after they have not been modified within 180 days. The path for any item that is not archived must be placed in an existing queue. This operation must be performed automatically once a month. You set the value of TierAgeInDays to -180.

How should you configure the Logic App? To answer, drag the appropriate triggers or action blocks to the correct trigger or action slots. Each trigger or action block 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.

Select and Place:

Triggers and action blocks

Insert Entity
Table: processing
Entity: Path X

Tier blob
If blob is older than the defined value, tier it to Cool or Archive tier.
Blob path: Path X
Blob tier: Archive

When there are messages in a queue
Queue Name: processing
Show advanced options: Connected to: testConnection, Change connection

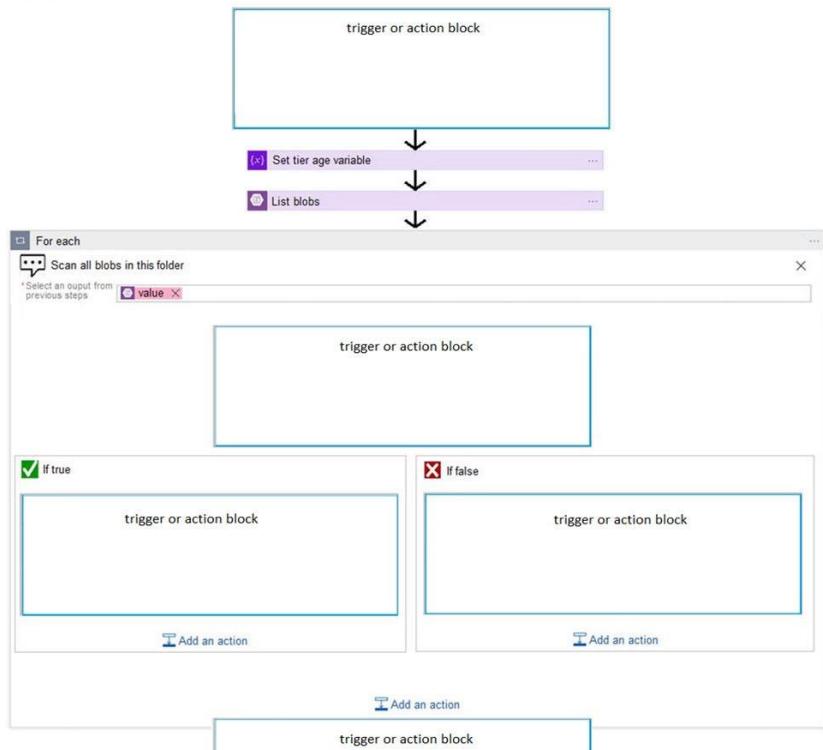
Recurrence
Interval: 1
Frequency: Month

List blobs
Folder: /items
Show advanced options:

Condition
Check LastModified timestamp and whether older than the tier age variable
ticks[items{For_each}? is less than ticks[addDaysInMonth], [LastModified]] variables[TierAgeInDays]]

Put a message on a queue
Queue Name: processing
Message: Path X
Connected to: testConnection, Change connection

Answer area



Correct Answer: Box 1 Recurrence Box 2 Condition Box 3 Put a message on a queue Box 4 Tier blob Box 5 List Blob

Triggers and action blocks

- Insert Entity: Table processing, Entity Path X
- Tier blob: If blob is older than the defined value, tier it to Cool or Archive tier. Blob path Path X, Blob tier Archive
- When there are messages in a queue: Queue Name processing
- Recurrence: Interval 1, Frequency Month
- List blobs 2: Folder /items
- Condition: Check LastModified timestamp and whether older than the tier age variable. ticks[items[For_each]?] is less than ticks[addDaysInMonth(), 'LastModified']
- Put a message on a queue: Queue Name processing, Message Path X

Answer area

```

graph TD
    Recurrence[Recurrence: Interval 1, Frequency Month] --> SetTier[Set tier age variable]
    SetTier --> ListBlobs1[List blobs]
    ListBlobs1 --> ForEach[For each: Scan all blobs in this folder]
    ForEach --> Condition[Condition: Check LastModified timestamp and whether older than the tier age variable]
    Condition --> IfTrue[If true: When there are messages in a queue]
    Condition --> IfFalse[If false: Tier blob]
    IfTrue --> PutQueue[Put a message on a queue]
    IfFalse --> ListBlobs2[List blobs 2]
  
```

Question #4 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 are developing an Azure Service application that processes queue data when it receives a message from a mobile application. Messages may not be sent to the service consistently.

You have the following requirements:

- Queue size must not grow larger than 80 gigabytes (GB).
- Use first-in-first-out (FIFO) ordering of messages.
- Minimize Azure costs.

You need to implement the messaging solution.

Solution: Use the .Net API to add a message to an **Azure Service Bus Queue** from the mobile application. Create an Azure Function App that uses an Azure Service Bus Queue trigger.

Does the solution meet the goal?

- A. Yes
- B. No

Question #5 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 are developing an Azure solution to collect **point-of-sale (POS) device data from 2,000 stores** located throughout the world. A single device can produce 2 megabytes (MB) of data every 24 hours. Each store location has one to five devices that send data. You must store the device data in Azure Blob storage. Device data must be correlated based on a device identifier. Additional stores are expected to open in the future.

You need to implement a solution to receive the device data.

Solution: **Provision an Azure Notification Hub**. Register all devices with the hub.

Does the solution meet the goal?

- A. Yes
- B. No

Question #6 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 are developing an Azure solution to collect **point-of-sale (POS) device data from 2,000 stores** located throughout the world. A single device can produce 2 megabytes (MB) of data every 24 hours. Each store location has one to five devices that send data. You must store the device data in Azure Blob storage. Device data must be correlated based on a device identifier. Additional stores are expected to open in the future.

You need to implement a solution to receive the device data.

Solution: **Provision an Azure Service Bus**. Configure a topic to receive the device data by using a correlation filter.

Does the solution meet the goal?

- A. Yes
- B. No

Question #7 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 are developing an Azure solution to collect point-of-sale (POS) device data from 2,000 stores located throughout the world. A single device can produce 2 megabytes (MB) of data every 24 hours. Each store location has one to five devices that send data. You must store the device data in Azure Blob storage. Device data must be correlated based on a device identifier. Additional stores are expected to open in the future.

You need to implement a solution to receive the device data.

Solution: Provision an Azure Event Grid. Configure event filtering to evaluate the device identifier.

Does the solution meet the goal?

- A. Yes
- B. No

Question #8 Topic 5

DRAG DROP -

You manage several existing Logic Apps.

You need to change definitions, add new logic, and optimize these apps on a regular basis.

What should you use? To answer, drag the appropriate tools to the correct functionalities. Each tool 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.

Select and Place:

**Correct
Answer:**

Answer Area

Tools	Functionality	Tool
Logic Apps Designer	Edit B2B workflows	Enterprise Integration Pack
Code View Editor	Edit definitions in JSON	Code View Editor
Enterprise Integration Pack	Visually add functionality	Logic Apps Designer

Question #9 Topic 5

A company is developing a solution that allows smart refrigerators to send temperature information to a central location.

The solution must receive and store messages until they can be processed. You create an Azure Service Bus instance by providing a name, pricing tier, subscription, resource group, and location.

You need to complete the configuration.

Which Azure CLI or PowerShell command should you run?

Correct Answer: A

A.

```
az servicebus queue create
--resource-group fridge-rg
--namespace-name fridge-ns
--name fridge-q
```

B.

```
New-AzureRmResourceGroup
-Name fridge-rg
-Location fridge-loc
```

C.

```
az servicebus namespace create
--resource-group fridge-rg
--name fridge-ns
--location fridge-loc
```

D.

```
connectionString-$)az serviceBus namespace authorization-rule keys list
--resource-group fridge-rg
--fridge-ns fridge-ns
--query primaryConnectionString -output tsv)
```

Question #10 Topic 5

You are developing an application that uses Azure Storage Queues.

You have the following code:

```
CloudStorageAccount storageAccount = CloudStorageAccount.Parse  
    (CloudConfigurationManager.GetSetting("StorageConnectionString"));  
CloudQueueClient queueClient = storageAccount.CreateCloudQueueClient();  
  
CloudQueue queue = queueClient.GetQueueReference("appqueue");  
await queue.CreateIfNotExistsAsync();  
  
CloudQueueMessage peekedMessage = await queue.PeekMessageAsync();  
if (peekedMessage != null)  
{  
    Console.WriteLine("The peeked message is: {0}", peekedMessage.AsString);  
}  
CloudQueueMessage message = await queue.GetMessageAsync(); ;
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statement	Yes	No
The code configures the lock duration for the queue.	<input type="radio"/>	<input checked="" type="radio"/>
The last message read remains in the queue after the code runs.	<input checked="" type="radio"/>	<input type="radio"/>
The storage queue remains in the storage account after the code runs.	<input checked="" type="radio"/>	<input type="radio"/>

Question #11 Topic 5

A company is developing a solution that allows smart refrigerators to send temperature information to a central location.

The solution must receive and store messages until they can be processed. You create an Azure Service Bus instance by providing a name, pricing tier, subscription, resource group, and location.

You need to complete the configuration.

Which Azure CLI or PowerShell command should you run?

Correct Answer: C

A.

```
az group create
  --name fridge-rg
  --location fridge-loc
```

B.

```
New-AzureRmServiceBusNamespace
  -ResourceGroupName fridge-rg
  -NamespaceName fridge-ns
  -Location fridge-loc
```

C.

```
New-AzureRmServiceBusQueue
  -ResourceGroupName fridge-rg
  -NamespaceName fridge-ns
  -Name fridge-q
  -EnablePartitioning $False
```

D.

```
az servicebus namespace create
  --resource-group fridge-rg
  --name fridge-rg
  --location fridge-loc
```

Question #12 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 are developing an Azure Service application that processes queue data when it receives a message from a mobile application. Messages may not be sent to the service consistently.

You have the following requirements:

- ☞ Queue size must not grow larger than 80 gigabytes (GB).
- ☞ Use first-in-first-out (**FIFO**) ordering of messages.
- ☞ Minimize Azure costs.

You need to implement the messaging solution.

Solution: Use the .Net API to add a message to an **Azure Storage Queue** from the mobile application. Create an Azure Function App that uses an **Azure Storage Queue trigger**.

Does the solution meet the goal?

- A. Yes
- B. No

Question #13 Topic 5

DRAG DROP -

You develop software solutions for a mobile delivery service. You are developing a mobile app that users can use to order from a restaurant in their area. The app uses the following workflow:

1. A driver selects the restaurants for which they will deliver orders.
2. Orders are sent to all available drivers in an area.
3. Only orders for the selected restaurants will appear for the driver.
4. The first driver to accept an order removes it from the list of available orders.

You need to implement an Azure Service Bus solution.

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. Select and Place:

Correct

Answer:

Actions

Create a single Service Bus topic.

Create a Service Bus Namespace for each restaurant for which a driver can receive messages.

Create a single Service Bus subscription.

Create a Service Bus subscription for each restaurant for which a driver can receive orders.

Create a single Service Bus Namespace.

Create a Service Bus topic for each restaurant for which a driver can receive messages.

Answer Area

Create a single Service Bus Namespace.

Create a Service Bus topic for each restaurant for which a driver can receive messages.

Create a Service Bus subscription for each restaurant for which a driver can receive orders.

Question #14 Topic 5

HOTSPOT -

You develop a news and blog content app for Windows devices.

A notification must arrive on a user's device when there is a new article available for them to view.

You need to implement push notifications.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

```
string notificationHubName = "contoso_hub";
string notificationHubConnection = "connection_string";
hub =
NotificationHubClient
NotificationHubClientSettings
NotificationHubJob
NotificationDetails

NotificationHubClient
NotificationHubClientSettings
NotificationHubJob
NotificationDetails

GetInstallation
CreateClientFromConnectionString
CreateOrUpdateInstallation
PatchInstallation

(notificationHubConnection, notificationHubName);
string windowsToastPayload =
@"<toast><visual><binding template=""ToastText01""><text id=""1"">" +
@"New item to view" + @"</text></binding></visual></toast>";
try
{
var result =
await hub.
SendWindowsNativeNotificationAsync
SubmitNotificationHubJobAsync
ScheduleNotificationAsync
SendAppleNativeNotificationAsync
...
}
catch (System.Exception ex)
{
...
}
...
}

Question #15 Topic 5
```

You are developing an Azure messaging solution.

You need to ensure that the solution meets the following requirements:

- Provide transactional support.
- Provide duplicate detection.
- Store the messages for an unlimited period of time.

Which **two technologies** will meet the requirements? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Service Bus Topic
- B. Azure Service Bus Queue
- C. Azure Storage Queue

- D. Azure Event Hub

Question #16 Topic 5

DRAG DROP -

You develop a gateway solution for a public facing news API.

The news API back end is implemented as a RESTful service and hosted in an Azure App Service instance.

You need to configure back-end authentication for the API Management service instance.

Which target and gateway credential type should you use? To answer, drag the appropriate values to the correct parameters. Each value 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.

Select and Place:

Correct ans. Azure Resource and Client Cert

Values	Answer Area	
	Configuration parameter	Value
Azure Resource	Target	<input type="text"/>
HTTP(s) endpoint	Gateway credentials	<input type="text"/>
Basic		
Client cert		

Question #17 Topic 5

You are creating an app that uses Event Grid to connect with other services. Your app's event data will be sent to a serverless function that checks compliance.

This function is maintained by your company.

You write a new event subscription at the scope of your resource. The event must be invalidated after a specific period of time.

You need to configure Event Grid.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Option	Value
WebHook event delivery	<div style="border: 1px solid black; padding: 5px;"><p>SAS tokens</p><p>Key authentication</p><p>Management Access Control</p></div>
Topic publishing	<div style="border: 1px solid black; padding: 5px;"><p>ValidationCode handshake</p><p>ValidationURL handshake</p><p>JWT token</p></div>

Question #18 Topic 5

HOTSPOT -

You are working for Contoso, Ltd.

You define an API Policy object by using the following XML markup:

```
<set-variable name="bodySize" value="@{context.Request.Headers["Content-Length"] [0]}"/>
<choose>
  <when condition="@(int.Parse(context.Variables.GetValueOrDefault<string> ("bodySize"))<512000)">
  </when>
  <otherwise>
    <rewrite-uri template="/put"/>
    <set-backend-service base-url="http://contoso.com/api/9.1/" />
  </otherwise>
</choose>
```

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

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer:

Answer Area

Statement	Yes	No
The XML segment belongs in the <inbound> section of the policy.	<input checked="" type="radio"/>	<input type="radio"/>
If the body size is >256k, an error will occur.	<input type="radio"/>	<input checked="" type="radio"/>
If the request is http://contoso.com/api/9.2/ , the policy will retain the higher version.	<input checked="" type="radio"/>	<input type="radio"/>

Question #19 Topic 5

You are developing a solution that will use Azure messaging services.

You need to ensure that the solution uses a publish-subscribe model and eliminates the need for constant polling.

What are **two possible ways** to achieve the goal? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Service Bus
- B. Event Hub
- C. Event Grid
- D. Queue

Question #20 Topic 5

A company is implementing a publish-subscribe (Pub/Sub) messaging component by using Azure Service Bus. You are developing the first subscription application.

In the Azure portal you see that messages are being sent to the subscription for each topic. You create and initialize a subscription client object by supplying the correct details, but the subscription application is still not consuming the messages.

You need to ensure that the subscription client processes all messages.

Which code segment should you use?

- A. await subscriptionClient.AddRuleAsync(new RuleDescription(RuleDescription.DefaultRuleName, new TrueFilter()));
- B. subscriptionClient = new SubscriptionClient(ServiceBusConnectionString, TopicName, SubscriptionName);
- C. await subscriptionClient.CloseAsync();
- D. subscriptionClient.RegisterMessageHandler(ProcessMessagesAsync, messageHandlerOptions);

Question #21 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 are developing an Azure Service application that processes queue data when it receives a message from a mobile application. Messages may not be sent to the service consistently.

You have the following requirements:

- Queue size must not grow larger than **80 gigabytes (GB)**.
- Use first-in-first-out (**FIFO**) ordering of messages.
- Minimize Azure costs.

You need to implement the messaging solution.

Solution: Use the .Net API to add a message to an **Azure Storage Queue** from the mobile application. Create an Azure VM that is triggered from **Azure Storage Queue events**.

Does the solution meet the goal?

- A. Yes
- B. No

Question #22 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 are developing an Azure Service application that processes queue data when it receives a message from a mobile application. Messages may not be sent to the service consistently.

You have the following requirements:

- Queue size must not grow larger than **80 gigabytes (GB)**.
- Use first-in-first-out (**FIFO**) ordering of messages.
- Minimize Azure costs.

You need to implement the messaging solution.

Solution: Use the .Net API to add a message to an **Azure Service Bus Queue** from the mobile application. Create an Azure Windows VM that is triggered from Azure Service Bus Queue.

Does the solution meet the goal?

- A. Yes
- B. No

Topic -6-----

Question #: 1

Topic #: 6

You need to configure Azure CDN for the Shipping web site.

Which configuration options should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Suggested

Answer Area

Option	Value
Tier	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><div style="background-color: #e0e0e0; height: 15px; margin-bottom: 2px;"></div><div style="background-color: #a0ffa0; height: 15px; border: 1px solid black; padding: 0 2px;"></div><div style="background-color: #fff; height: 15px; border: 1px solid black; padding: 0 2px;"></div></div>
Profile	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><div style="background-color: #e0e0e0; height: 15px; margin-bottom: 2px;"></div><div style="background-color: #a0ffa0; height: 15px; border: 1px solid black; padding: 0 2px;"></div><div style="background-color: #fff; height: 15px; border: 1px solid black; padding: 0 2px;"></div></div>
Optimization	<div style="border: 1px solid black; padding: 5px; width: fit-content;"><div style="background-color: #e0e0e0; height: 15px; margin-bottom: 2px;"></div><div style="background-color: #fff; height: 15px; border: 1px solid black; padding: 0 2px;"></div><div style="background-color: #a0ffa0; height: 15px; border: 1px solid black; padding: 0 2px;"></div><div style="background-color: #fff; height: 15px; border: 1px solid black; padding: 0 2px;"></div></div>

Answer:

Topic 14 Testlet 16----

Question

HOTSPOT -

You need to correct the VM issues.

Which tools should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Correct

Answer Area

Issue

Tool

Backup and Restore

Azure Site Recovery
Azure Backup
Azure Data Box
Azure Migrate

Performance

Azure Network Watcher
Azure Traffic Manager
ExpressRoute
Accelerated Networking

Answer:

Topic 15 Testlet 17---

Question

HOTSPOT -

You need to implement the Log policy.

How should you complete the EnsureLogging method in EventGridController.cs? To answer, select the appropriate options in the answer area.

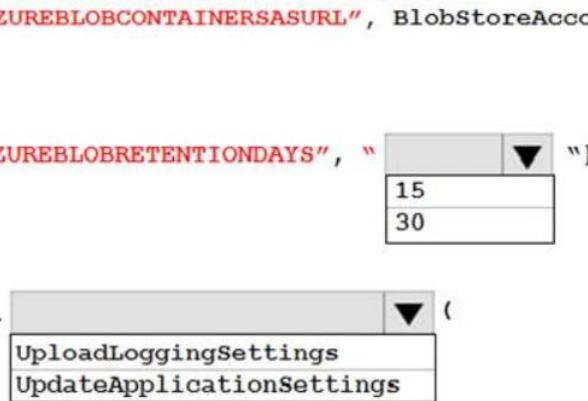
NOTE: Each correct selection is worth one point.

Hot Area:

Correct ans: Box 1: logdrop, Box 2: 15, Box 3: UpdateApplicationSettings

Answer Area

```
var client = new WebSiteManagementClient(. . .);
var id = ParseResourceId(resource);
var appSettings = new StringDictionary(name: "properties",
    properties: new Dictionary<string, string> {
        {"DIAGNOSTICS_AZUREBLOBCONTAINERSASURL", BlobStoreAccountsSAS("logs")},
        {"DIAGNOSTICS_AZUREBLOBRETENTIONDAYS", "15"}
    });
client.WebApps(id.resourceGroup,
    id.name, appSettings);
```



QuestionNote: 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 need to ensure that authentication events are triggered and processed according to the authentication events policy.

Solution: Create a new Azure Event Grid topic and add a subscription for the events.
Does the solution meet the goal?

- A. Yes
- B. No

QuestionNote: 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 need to ensure that authentication events are triggered and processed according to the authentication events policy.

Solution: Create separate Azure Event Grid topics and subscriptions for sign-in and sign-out events.

Does the solution meet the goal?

- A. Yes
- B. No

Topic #: 14

You need to retrieve the database connection string.

Which values should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

REST API Endpoint:

https://	<input type="text"/>	▼	.vault.azure.net/secrets/	▼	/
	cpandlkeyvault				
	PostgreSQLConn				
	80df3e46ffcd4f1cb187f79905e9a1e8				

Variable type to access Azure Key Vault secret values:

<input type="text"/>	▼
Environment	
Session	
ViewState	
QueryString	

Question #: 2

Topic #: 14

DRAG DROP -

You need to correct the corporate website error.

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

Select and Place:

Correct ans: 1. Generate a certificate 2. Upload the certificate to Azure Key Vault 3. Import the certificate to Azure App Service 4. Add the certificate thumbprint to the

WEBSITE_LOAD_CERTIFICATES app setting

Actions	Answer Area
Upload the certificate to Azure Key Vault.	
Update line SC05 of Security.cs to include error handling and then redeploy the code.	>
Update line SC03 of Security.cs to include a using statement and then re-deploy the code.	↑ ↓
Add the certificate thumbprint to the WEBSITE_LOAD_CERTIFICATES app setting.	↑ ↓
Upload the certificate to source control.	
Import the certificate to Azure App Service.	
Generate a certificate.	

Question #: 3

Topic #: 14

You need to configure API Management for authentication.

Which policy values should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

correct ans: Box1: validate-jwt, Box2: Inbound

Answer Area

Setting	Value
Policy	<div style="border: 1px solid #ccc; padding: 5px;"><p>Check HTTP header</p><p>Restrict caller IPs</p><p>Limit call rate by key</p><p>Validate JWT</p></div>
Policy section	<div style="border: 1px solid #ccc; padding: 5px;"><p>Inbound</p><p>Outbound</p></div>

Question #: 4

Topic #: 14

You need to authenticate the user to the corporate website as indicated by the architectural diagram.

Which two values should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

Correct ans: B, D

- A. ID token signature
- B. ID token claims
- C. HTTP response code
- D. Azure AD endpoint URI
- E. Azure AD tenant ID

Question #: 5

Topic #: 10

You need to correct the Azure Logic app error message.

Which configuration values should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Correct ans: Box 1: anonymous Box 2: system-assigned

Answer Area

Setting	Value
authentication level	<input type="checkbox"/> anonymous <input type="checkbox"/> function <input type="checkbox"/> admin
managed identity	<input type="checkbox"/> system-assigned <input type="checkbox"/> user-assigned

Question #: 6

Topic #: 10

You need to configure Azure Service Bus to Event Grid integration.

Which Azure Service Bus settings should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

	Setting	Value
Tier		
	Basic	
	Standard	
	Premium	
RBAC role		
	Owner	
	Contributor	
	Azure Service Bus Data Owner	
	Azure Service Bus Data Receiver	

Question #: 1

Topic #: 11

You need to add code at line PC26 of Processing.cs to ensure that security policies are met.

How should you complete the code that you will add at line PC26? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Suggested

Answer:

Answer Area

```
var resolver = new KeyVaultKeyResolver(_keyVaultClient);
var keyBundle = await _keyVaultClient.GetKeyAsync("...", "...");
```

```
var key = keyBundle.Key;
var key = keyBundle.KeyIdentifier.Identifier;
var key = await resolver.ResolveKeyAsync("encrypt", null);
var key = await resolver.ResolveKeyAsync(keyBundle.KeyIdentifier.Identifier, CancellationToken.None);
```

```
var x = keyBundle.Managed;
var x = AuthenticationScheme.SharedKey;
var x = new BlobEncryptionPolicy(key, resolver);
var x = new DeleteRetentionPolicy {Enabled = key.Kid != null};
```

```
cloudBlobClient.AuthenticationScheme = x;
cloudBlobClient.DefaultRequestOptions.RequireEncryption = x;
cloudBlobClient.DefaultRequestOptions.EncryptionPolicy = x;
cloudBlobClient.SetServiceProperties(new ServiceProperties(deleteRetentionPolicy:x));
```

Question #: 4

Topic #: 8

You need to ensure the security policies are met.

What code do you add at line CS07?

Correct ans: B

- A. -PermissionsToCertificates create, encrypt, decrypt
- B. -PermissionsToKeys wrapkey, unwrapkey, get
- C. -PermissionsToCertificates wrapkey, unwrapkey, get
- D. -PermissionsToKeys create, encrypt, decrypt

Question #: 1

Topic #: 15

You need to monitor ContentUploadService according to the requirements.

Which command should you use?

Correct ans: C

- A. az monitor metrics alert create ""n alert ""g "| - -scopes "| - -condition "avg Percentage CPU > 8"

- B. az monitor metrics alert create ""n alert ""g "l - -scopes "l - -condition "avg Percentage CPU > 800"
- C. az monitor metrics alert create ""n alert ""g "l - -scopes "l - -condition "CPU Usage > 800"
- D. az monitor metrics alert create ""n alert ""g "l - -scopes "l - -condition "CPU Usage > 8"

Question #: 1

Topic #: 13

You need to investigate the Azure Function app error message in the development environment.

What should you do?

- A. Connect Live Metrics Stream from Application Insights to the Azure Function app and filter the metrics.
- B. Create a new Azure Log Analytics workspace and instrument the Azure Function app with Application Insights.
- C. Update the Azure Function app with extension methods from Microsoft.Extensions.Logging to log events by using the log instance.
- D. Add a new diagnostic setting to the Azure Function app to send logs to Log Analytics.

Question #: 2

Topic #: 13

You need to configure security and compliance for the corporate website files.

Which Azure Blob storage settings should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Correct ans: Box 1: shared access signature (SAS) token Box 2: change feed

Answer Area

Action	Setting
Restrict file access	role-based access control (RBAC) managed identity shared access signature (SAS) token connection string
Enable file auditing	access tier change feed blob indexer storage account type

Question #: 1

Topic #: 14

You need to implement the Log policy.

How should you complete the Azure Event Grid subscription? To answer, drag the appropriate JSON segments to the correct locations. Each JSON segment may be used once, more than once, or not at all. You may need to drag the split bar between panes to view content.

NOTE: Each correct selection is worth one point.

Suggested Answer:

Code segment

- All
- WebHook
- EventHub
- subjectEndsWith
- Microsoft.Storage
- subjectBeginsWith
- Microsoft.Storage.BlobCreated

Answer Area

```
{
  "name": "newlogs",
  "properties": {
    "topic": "/subscriptions/.../providers/Microsoft.EventGrid/topics/...",
    "destination": {
      "endpointType" : "WebHook"
    },
    "filter": {
      "subjectBeginsWith": "/blobServices/default/containers/logdrop/",
      "includedEventTypes": [ "Microsoft.Storage.BlobCreated" ]
    },
    "labels": [],
    "eventDeliverySchema": "EventGridSchema"
  }
}
```

Question #: 2

Topic #: 14

You need to ensure that the solution can meet the scaling requirements for Policy Service.

Which Azure Application Insights data model should you use?

- A. an Application Insights dependency
- B. an Application Insights event

- C. an Application Insights trace
- D. an Application Insights metric

Question #: 2

Topic #: 11

You need to implement telemetry for non-user actions.

How should you complete the Filter class? To answer, drag the appropriate code segments to the correct locations. Each code segment 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.

Select and Place:

Correct ans:

Code segments	Answer Area
/health	<code>public class Filter : ITelemetryProcessor</code>
/status	<code>{</code>
RequestTelemetry	<code>private readonly ITelemetryProcessor _next;</code>
PageViewTelemetry	<code>public (Filter ITelemetryProcessor next)</code>
ITelemetryProcessor	<code>{</code>
ITelemetryInitializer	<code>_next = next;</code>
Correct Answer:	<code>}</code>
	<code>public void Process(ITelemetry item)</code>
	<code>{</code>
	<code> var x = item as RequestTelemetry;</code>
	<code> if (x?.Url.AbsolutePath == "/health")</code>
	<code> {</code>
	<code> return;</code>
	<code> }</code>
	<code> _next.Process(item);</code>
	<code>}</code>
	<code>}</code>

Question #: 18

Topic #: 24

You need to ensure that PolicyLib requirements are met.

How should you complete the code segment? To answer, drag the appropriate code segments to the correct locations. Each code segment 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.

Select and Place:

CorrectAnswer:

Code segments	Answer Area
Process	public class IncludeEventId : ITelemetryInitializer
Initialize	{
telemetry.Sequence	public void Initialize
ITelemetryProcessor	(ITelemetry telemetry)
ITelemetryInitializer	{
Telemetry.Context	Telemetry.Context.Properties["EventId"] =
EventGridController.EventId.Value	[(EventTelemetry)telemetry.Properties["EventId"]]
[EventTelemetry)telemetry.Properties["EventId"]	}

Question #: 3

Topic #: 12

You need to ensure receipt processing occurs correctly.
What should you do?

Correct ans: C

- A. Use blob metadata to prevent concurrency problems.
- B. Use blob SnapshotTime to prevent concurrency problems.
- C. Use blob leases to prevent concurrency problems.
- D. Use blob properties to prevent concurrency problems.

Question #: 4

Topic #: 12

You need to resolve the capacity issue.
What should you do?

- A. Move the Azure Function to a dedicated App Service Plan.
- B. Convery the trigger on the Azure Function to a File Trigger.
- C. Ensure that the consumption plan is configured correctly to allow for scaling.
- D. Update the loop starting on line PC09 to process items in parallel.

Answer: D

Question #: 3

Topic #: 15

You need to resolve the log capacity issue.
What should you do?

- A. Create an Application Insights Telemetry Filter
- B. Change the minimum log level in the host.json file for the function

- C. Implement Application Insights Sampling
- D. Set a LogCategoryFilter during startup

Question #: 1

Topic #: 11

DRAG DROP -

You need to support the message processing for the ocean transport workflow. 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. Select and Place:

**Suggested
Answer:**

Actions

Link the Logic App to the integration account.

Add partners, schemas, certificates, maps, and agreements.

Update the Logic App to use the partners, schemas, certificates, maps, and agreements.

Create a custom connector for the Logic App.

Link the custom connector to the Logic App.

Create an integration account in the Azure portal.

Answer Area

Create an integration account in the Azure portal.

Link the Logic App to the integration account.

Add partners, schemas, certificates, maps, and agreements.



Create a custom connector for the Logic App.



Question #: 2

Topic #: 15

You need to support the requirements for the Shipping Logic App. What should you use?

- A. Azure Active Directory Application Proxy
- B. Site-to-Site (S2S) VPN connection
- C. On-premises Data Gateway
- D. Point-to-Site (P2S) VPN connection

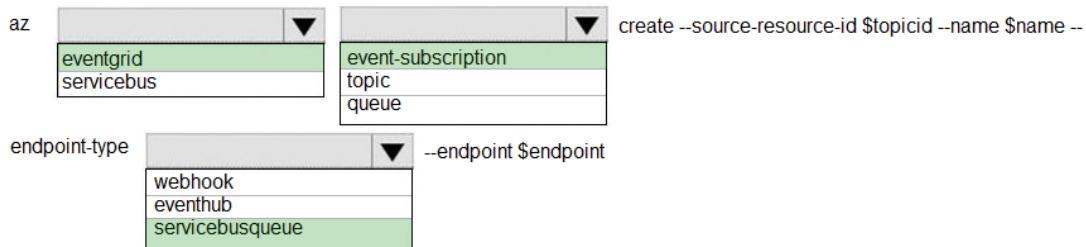
Question #: 1**Topic #: 8**

You need to configure the integration for Azure Service Bus and Azure Event Grid.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Suggested**Answer:****Answer Area****Question #: 2****Topic #: 19**

You need to ensure that all messages from Azure Event Grid are processed.

What should you use?

- A. Azure Event Grid topic
- B. Azure Service Bus topic
- C. Azure Service Bus queue
- D. Azure Storage queue
- E. Azure Logic App custom connector

Question #: 5**Topic #: 15**

You need to add code at line EG15 in EventGridController.cs to ensure that the Log policy applies to all services.

How should you complete the code? To answer, drag the appropriate code segments to the correct locations. Each code segment 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.

Select and Place:

Correct ans: box1: status box2: Succeeded box3: operationName

Code segments	Answer Area
topic	if (
status	@event["data"] [" "].ToString() == "
eventType	&&
Succeeded	@event["data"] [" "].ToString() == "Microsoft.Web/sites/write"
operationName)
resourceProvider	

Question #: 6

Topic #: 15

You need to insert code at line LE03 of LoginEvent.cs to ensure that all authentication events are processed correctly.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area	
	<pre>public string id { get; set; }</pre> <ul style="list-style-type: none"> id eventType dataVersion metadataVersion
Correct Answer:	<pre>public string id { get; set; }</pre> <ul style="list-style-type: none"> id eventType dataVersion metadataVersion
	<pre>public string id { get; set; }</pre> <ul style="list-style-type: none"> id eventType dataVersion metadataVersion

Question #: 1

Topic #: 15

You need to implement the Log policy.

How should you complete the EnsureLogging method in EventGridController.cs? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
var client = new WebSiteManagementClient(. . .);
var id = ParseResourceId(resource);
var appSettings = new StringDictionary(name: "properties",
    properties: new Dictionary<string, string> {
        {"DIAGNOSTICS_AZUREBLOBCONTAINERSASURL", BlobStoreAccountSAS("logs")},
        {"DIAGNOSTICS_AZUREBLOBRETENTIONINDAYS", "15"}
    });
client.WebApps.UpdateApplicationSetting(id.resourceGroup,
    id.name, appSettings);
```

Question #: 1

Topic #: 9

You need to correct the RequestUserApproval Function app error.
What should you do?

- A. Update line RA13 to use the `async` keyword and return an `HttpRequest` object value.
- B. Configure the Function app to use an App Service hosting plan. Enable the Always On setting of the hosting plan.
- C. Update the function to be stateful by using Durable Functions to process the request payload.
- D. Update the `functionTimeout` property of the `host.json` project file to 15 minutes.

Question #: 5

Topic #: 22

You need to add code at line AM10 of the application manifest to ensure that the requirement for manually reviewing content can be met.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

```
"optionalClaims": [  
    "acct",  
    "platf",  
    "sid",  
    "tenant_ctry",  
    "sid",  
    "upn",  
    "email",  
    "enfpolids"],
```

Suggested Answer:

