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## 01 - Manage Azure identities and governance

### QUESTION 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 have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User2 to create the user accounts.

Does that meet the goal?

A. Yes

B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**



### Explanation/Reference:

Only a global administrator can add users to this tenant.

Reference: <https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

### QUESTION 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.

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You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User4 to create the user accounts.

Does that meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Only a global administrator can add users to this tenant.

Reference: <https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

#### QUESTION 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.

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You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.



You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User3 to create the user accounts.

Does that meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Only a global administrator can add users to this tenant.

Reference: <https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

#### QUESTION 4

You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com and an Azure Kubernetes Service (AKS) cluster named AKS1.

An administrator reports that she is unable to grant access to AKS1 to the users in contoso.com.

You need to ensure that access to AKS1 can be granted to the contoso.com users.

What should you do first?

- A. From contoso.com, modify the Organization relationships settings.
- B. From contoso.com, create an OAuth 2.0 authorization endpoint.
- C. Recreate AKS1.
- D. From AKS1, create a namespace.

**Correct Answer:** B  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**  
Reference: <https://kubernetes.io/docs/reference/access-authn-authz/authentication/>

**QUESTION 5**

You have a Microsoft 365 tenant and an Azure Active Directory (Azure AD) tenant named contoso.com.  
You plan to grant three users named User1, User2, and User3 access to a temporary Microsoft SharePoint document library named Library1.  
You need to create groups for the users. The solution must ensure that the groups are deleted automatically after 180 days.  
Which two groups should you create? Each correct answer presents a complete solution.  
NOTE: Each correct selection is worth one point.

- A. an Office 365 group that uses the Assigned membership type
- B. a Security group that uses the Assigned membership type
- C. an Office 365 group that uses the Dynamic User membership type
- D. a Security group that uses the Dynamic User membership type
- E. a Security group that uses the Dynamic Device membership type

**Correct Answer:** AC  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**  
You can set expiration policy only for Office 365 groups in Azure Active Directory (Azure AD).  
Note: With the increase in usage of Office 365 Groups, administrators and users need a way to clean up unused groups. Expiration policies can help remove inactive groups from the system and make things cleaner.  
When a group expires, all of its associated services (the mailbox, Planner, SharePoint site, etc.) are also deleted.  
You can set up a rule for dynamic membership on security groups or Office 365 groups.  
Incorrect Answers:  
B, D, E: You can set expiration policy only for Office 365 groups in Azure Active Directory (Azure AD).  
Reference: <https://docs.microsoft.com/en-us/office365/admin/create-groups/office-365-groups-expiration-policy?view=o365-worldwide>

**QUESTION 6**

You have an Azure policy as shown in the following exhibit:



SCOPE

\* Scope ([Learn more about setting the scope](#))  
Subscription 1

Exclusions  
Subscription 1/ContosoRG1

BASICS

\* Policy definition  
Not allowed resource types

\* Assignment name ⓘ  
Not allowed resource types

Assignment ID  
`/subscriptions/5eb8d0b6-ce3b-4ce0-a631-9f5321bedabb/providers/Microsoft.Authorization/policyAssignments/0e6fb866bf854f54accae2a9`

Description

Assigned by  
admin1@contoso.com

PARAMETERS

\* Not allowed resource types ⓘ  
Microsoft.Sql/servers



What is the effect of the policy?

- A. You are prevented from creating Azure SQL servers anywhere in Subscription 1.
- B. You can create Azure SQL servers in ContosoRG1 only.
- C. You are prevented from creating Azure SQL Servers in ContosoRG1 only.
- D. You can create Azure SQL servers in any resource group within Subscription 1.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

You are prevented from creating Azure SQL servers anywhere in Subscription 1 with the exception of ContosoRG1

**QUESTION 7**

You have an Azure subscription named AZPT1 that contains the resources shown in the following table:

Name	Type
storage1	Azure Storage account
VNET1	Virtual network
VM1	Azure virtual machine
VM1Managed	Managed disk for VM1
RVAULT1	Recovery Services vault for the site recovery of VM1

You create a new Azure subscription named AZPT2.

You need to identify which resources can be moved to AZPT2.

Which resources should you identify?

- A. VM1, storage1, VNET1, and VM1Managed only
- B. VM1 and VM1Managed only
- C. VM1, storage1, VNET1, VM1Managed, and RVAULT1
- D. RVAULT1 only

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

You can move a VM and its associated resources to a different subscription by using the Azure portal.

You can now move an Azure Recovery Service (ASR) Vault to either a new resource group within the current subscription or to a new subscription.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-resource-group-and-subscription>

**QUESTION 8**

You recently created a new Azure subscription that contains a user named Admin1.

Admin1 attempts to deploy an Azure Marketplace resource by using an Azure Resource Manager template. Admin1 deploys the template by using Azure PowerShell and receives the following error message: "User failed validation to purchase resources. Error message: "Legal terms have not been accepted for this item on this subscription. To accept legal terms, please go to the Azure portal (<http://go.microsoft.com/fwlink/?LinkId=534873>) and configure programmatic deployment for the Marketplace item or create it there for the first time."

You need to ensure that Admin1 can deploy the Marketplace resource successfully.

What should you do?

- A. From Azure PowerShell, run the Set-AzApiManagementSubscription cmdlet
- B. From the Azure portal, register the Microsoft.Marketplace resource provider
- C. From Azure PowerShell, run the Set-AzMarketplaceTerms cmdlet
- D. From the Azure portal, assign the Billing administrator role to Admin1

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: <https://docs.microsoft.com/en-us/powershell/module/az.marketplaceordering/set-azmarketplaceterms?view=azps-4.1.0>

**QUESTION 9**

You have an Azure Active Directory (Azure AD) tenant that contains 5,000 user accounts.

You create a new user account named AdminUser1.

You need to assign the User administrator administrative role to AdminUser1.

What should you do from the user account properties?

- A. From the Licenses blade, assign a new license
- B. From the Directory role blade, modify the directory role
- C. From the Groups blade, invite the user account to a new group

**Correct Answer:** B

**Section:** (none)

## Explanation

### Explanation/Reference:

Assign a role to a user

1. Sign in to the Azure portal with an account that's a global admin or privileged role admin for the directory.
2. Select Azure Active Directory, select Users, and then select a specific user from the list.
3. For the selected user, select Directory role, select Add role, and then pick the appropriate admin roles from the Directory roles list, such as Conditional access administrator.
4. Press Select to save.

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-users-assign-role-azure-portal>

## QUESTION 10

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains 100 user accounts.

You purchase 10 Azure AD Premium P2 licenses for the tenant.

You need to ensure that 10 users can use all the Azure AD Premium features.

What should you do?

- A. From the Licenses blade of Azure AD, assign a license
- B. From the Groups blade of each user, invite the users to a group
- C. From the Azure AD domain, add an enterprise application
- D. From the Directory role blade of each user, modify the directory role

**Correct Answer:** A

**Section:** (none)

**Explanation**

### Explanation/Reference:

Reference: <https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/license-users-groups>

## QUESTION 11

You have an Azure subscription named Subscription1 and an on-premises deployment of Microsoft System Center Service Manager.

Subscription1 contains a virtual machine named VM1.

You need to ensure that an alert is set in Service Manager when the amount of available memory on VM1 is below 10 percent.

What should you do first?

- A. Create an automation runbook
- B. Deploy a function app
- C. Deploy the IT Service Management Connector (ITSM)
- D. Create a notification

**Correct Answer:** C

**Section:** (none)

**Explanation**

### Explanation/Reference:

The IT Service Management Connector (ITSMC) allows you to connect Azure and a supported IT Service Management (ITSM) product/service, such as the Microsoft System Center Service Manager.

With ITSMC, you can create work items in ITSM tool, based on your Azure alerts (metric alerts, Activity Log alerts and Log Analytics alerts).

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/itsmc-overview>

## QUESTION 12

You sign up for Azure Active Directory (Azure AD) Premium.

You need to add a user named admin1@contoso.com as an administrator on all the computers that will be joined to the Azure AD domain.

What should you configure in Azure AD?

- A. Device settings from the Devices blade
- B. Providers from the MFA Server blade
- C. User settings from the Users blade
- D. General settings from the Groups blade

**Correct Answer:** A

**Section:** (none)

## Explanation

### Explanation/Reference:

When you connect a Windows device with Azure AD using an Azure AD join, Azure AD adds the following security principles to the local administrators group on the device: The Azure AD global administrator role  
The Azure AD device administrator role  
The user performing the Azure AD join

In the Azure portal, you can manage the device administrator role on the Devices page. To open the Devices page:

1. Sign in to your Azure portal as a global administrator or device administrator.
2. On the left navbar, click Azure Active Directory.
3. In the Manage section, click Devices.
4. On the Devices page, click Device settings.

5. To modify the device administrator role, configure Additional local administrators on Azure AD joined devices.

### Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/assign-local-admin>

## QUESTION 13

You have an Azure subscription that contains a resource group named RG26.

RG26 is set to the West Europe location and is used to create temporary resources for a project. RG26 contains the resources shown in the following table.

Name	Type	Location
VM1	Virtual machine	North Europe
RGV1	Recovery Services vault	North Europe
SQLDB01	Azure SQL database	North Europe
AZSQL01	Azure SQL database server	North Europe
sa001	Storage account	West Europe

SQLDB01 is backed up to RGV1.

When the project is complete, you attempt to delete RG26 from the Azure portal. The deletion fails.

You need to delete RG26.

What should you do first?

- A. Delete VM1
- B. Stop VM1
- C. Stop the backup of SQLDB01
- D. Delete sa001

**Correct Answer:** C

**Section:** (none)

**Explanation**

### Explanation/Reference:

## QUESTION 14

You have an Azure subscription named Subscription1 that contains a virtual network named VNet1. VNet1 is in a resource group named RG1.

Subscription1 has a user named User1. User1 has the following roles:

- Reader
- Security Admin
- Security Reader

You need to ensure that User1 can assign the Reader role for VNet1 to other users.

What should you do?



- A. Remove User 1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for RG1.
- B. Assign User1 the Owner role for VNet1.
- C. Remove User1 from the Security Reader and Reader roles for Subscription1.
- D. Assign User1 the Network Contributor role for RG1.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Has full access to all resources including the right to delegate access to others.

Reference: <https://docs.microsoft.com/en-us/azure/role-based-access-control/overview>

**QUESTION 15**

You have an Azure Active Directory (Azure AD) tenant named contosocloud.onmicrosoft.com.

Your company has a public DNS zone for contoso.com.

You add contoso.com as a custom domain name to Azure AD.

You need to ensure that Azure can verify the domain name.

Which type of DNS record should you create?

- A. MX
- B. NSEC
- C. PTR
- D. RRSIG

**Correct Answer:** A

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Explanation:

Note:

There are several versions of this question in the exam. The question can have other incorrect answer options, including the following:

1. SRV
2. NSEC3

Reference:

<https://docs.microsoft.com/en-us/azure/dns/dns-web-sites-custom-domain>

**QUESTION 16**

HOTSPOT

You have an Azure subscription named Subscription1 that contains a resource group named RG1.

In RG1, you create an internal load balancer named LB1 and a public load balancer named LB2.

You need to ensure that an administrator named Admin1 can manage LB1 and LB2. The solution must follow the principle of least privilege.

Which role should you assign to Admin1 for each task? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

### Answer Area

To add a backend pool to LB1:

Contributor on LB1
Network Contributor on LB1
Network Contributor on RG1
Owner on LB1

To add a health probe to LB2:

Contributor on LB2
Network Contributor on LB2
Network Contributor on RG1
Owner on LB2

Correct Answer:

### Answer Area

To add a backend pool to LB1:

Contributor on LB1
Network Contributor on LB1
Network Contributor on RG1
Owner on LB1

To add a health probe to LB2:

Contributor on LB2
Network Contributor on LB2
Network Contributor on RG1
Owner on LB2

Section: (none)

Explanation

Explanation/Reference:

Explanation:

The Network Contributor role lets you manage networks, but not access them.

Reference:

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

### QUESTION 17

HOTSPOT

You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains the users shown in the following table:

Name	Type	Member of
User1	Member	Group1
User2	Guest	Group1
User3	Member	None
UserA	Member	Group2
UserB	Guest	Group2

User3 is the owner of Group1.

Group2 is a member of Group1.

You configure an access review named Review1 as shown in the following exhibit:

Create an access review

Access reviews enable reviewers to attest user's membership in a group or access to an application.

\* Review name: Review1

Description: (empty)

\* Start date: 2018-11-22

Frequency: One time

Duration (in days): 1

End: Never

\* Number of times: 0

\* End date: 2018-12-22

**Users**

Users to review: Members of a group

Scope: Guest users only

**Group**

Group1

**Reviewers**

Reviewers: Group owners

**Programs**

Link to program

Default program

Upon completion settings

Advanced settings



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:

### Answer Area

#### Statements

- User3 can perform an access review of User1
- User3 can perform an access review of UserA
- User3 can perform an access review of UserB

Yes

No




Correct Answer:

### Answer Area

#### Statements

- User3 can perform an access review of User1
- User3 can perform an access review of UserA
- User3 can perform an access review of UserB

Yes

No




Section: (none)

Explanation

Explanation/Reference:

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/create-access-review>

### QUESTION 18

HOTSPOT

You have the Azure management groups shown in the following table:

Name	In management group
Tenant Root Group	<i>Not applicable</i>
ManagementGroup11	Tenant Root Group
ManagementGroup12	Tenant Root Group
ManagementGroup21	ManagementGroup11

You add Azure subscriptions to the management groups as shown in the following table:

Name	Management group
Subscription1	ManagementGroup21
Subscription2	ManagementGroup12

You create the Azure policies shown in the following table:

Name	Parameter	Scope
Not allowed resource types	virtualNetworks	Tenant Root Group
Allowed resource types	virtualNetworks	ManagementGroup12

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:**

### Answer Area

Statements	Yes	No
You can create a virtual network in Subscription1.	<input type="radio"/>	<input type="radio"/>
You can create a virtual machine in Subscription2.	<input type="radio"/>	<input type="radio"/>
You can add Subscription1 to ManagementGroup11.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

### Answer Area

Statements	Yes	No
You can create a virtual network in Subscription1.	<input type="radio"/>	<input checked="" type="radio"/>
You can create a virtual machine in Subscription2.	<input checked="" type="radio"/>	<input type="radio"/>
You can add Subscription1 to ManagementGroup11.	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)**

**Explanation:**

**Explanation/Reference:**

Explanation:

Box 1: No

Virtual networks are not allowed at the root and is inherited. Deny overrides allowed.

Box 2: Yes

Virtual Machines can be created on a Management Group provided the user has the required RBAC permissions.

Box 3: Yes

Subscriptions can be moved between Management Groups provided the user has the required RBAC permissions.

**Reference:**

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview>

<https://docs.microsoft.com/en-us/azure/governance/management-groups/manage#moving-management-groups-and-subscriptions>

**QUESTION 19**  
**HOTSPOT**

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

Name	Type	Resource group	Tag
RG6	Resource group	<i>Not applicable</i>	<i>None</i>
VNET1	Virtual network	RG6	Department: D1

You assign a policy to RG6 as shown in the following table:

Section	Setting	Value
Scope	Scope	Subscription1/RG6
	Exclusions	<i>None</i>
Basics	Policy definition	Apply tag and its default value
	Assignment name	Apply tag and its default value
Parameters	Tag name	Label
	Tag value	Value1

To RG6, you apply the tag: RGroup: RG6.

You deploy a virtual network named VNET2 to RG6.

Which tags apply to VNET1 and VNET2? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**


VNET1:

None
Department: D1 only
Department: D1, and RGroup: RG6 only
Department: D1, and Label: Value1 only
Department: D1, RGroup: RG6, and Label: Value1

VNET2:

None
RGroup: RG6 only
Label: Value1 only
RGroup: RG6, and Label: Value1

**Correct Answer:**

## Answer Area

VNET1:

None
Department: D1 only
Department: D1, and RGroup: RG6 only
Department: D1, and Label: Value1 only
Department: D1, RGroup: RG6, and Label: Value1

VNET2:

None
RGroup: RG6 only
Label: Value1 only
RGroup: RG6, and Label: Value1

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

VNET1: Department: D1, and Label:Value1 only.

Tags applied to the resource group or subscription are not inherited by the resources.

Note: Azure Policy allows you to use either built-in or custom-defined policy definitions and assign them to either a specific resource group or across a whole Azure subscription.



VNET2: Label:Value1 only.

Incorrect Answers:

RGROUP: RG6

Tags applied to the resource group or subscription are not inherited by the resources.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-policies>

## QUESTION 20

HOTSPOT

You have Azure Active Directory tenant named Contoso.com that includes following users:

Name	Role
User1	Cloud device administrator
User2	User administrator

Contoso.com includes following Windows 10 devices:

Name	Join type
Device1	Azure AD registered
Device2	Azure AD joined

You create following security groups in Contoso.com:

Name	Membership Type	Owner
Group1	Assigned	User2
Group2	Dynamic Device	User2

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:**

### Answer Area

Statements	Yes	No
User1 can add Device2 to Group1	<input type="radio"/>	<input type="radio"/>
User2 can add Device1 to Group1	<input type="radio"/>	<input type="radio"/>
User2 can add Device2 to Group2	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

### Answer Area

Statements	Yes	No
User1 can add Device2 to Group1	<input checked="" type="radio"/>	<input type="radio"/>
User2 can add Device1 to Group1	<input type="radio"/>	<input checked="" type="radio"/>
User2 can add Device2 to Group2	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Yes

User1 is a Cloud Device Administrator.

Device2 is Azure AD joined.

Group1 has the assigned to join type. User1 is the owner of Group1.

Note: Assigned groups - Manually add users or devices into a static group.

Azure AD joined or hybrid Azure AD joined devices utilize an organizational account in Azure AD

Box 2: No

User2 is a User Administrator.

Device1 is Azure AD registered.

Group1 has the assigned join type, and the owner is User1.

Note: Azure AD registered devices utilize an account managed by the end user, this account is either a Microsoft account or another locally managed credential.

Box 3: Yes

User2 is a User Administrator.

Device2 is Azure AD joined.

Group2 has the Dynamic Device join type, and the owner is User2.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/overview>

#### QUESTION 21

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

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

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers. Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Subscription1, you assign the DevTest Labs User role to the Developers group.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

**Section: (none)**

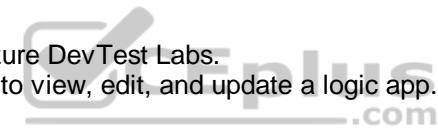
**Explanation**

**Explanation/Reference:**

Explanation:

DevTest Labs User role only lets you connect, start, restart, and shutdown virtual machines in your Azure DevTest Labs.

The Logic App Contributor role lets you manage logic app, but not access to them. It provides access to view, edit, and update a logic app.



Reference:

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

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-secluding-a-logic-app>

#### QUESTION 22

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

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

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers. Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Subscription1, you assign the Logic App Operator role to the Developers group.

Does this meet the goal?

A. Yes

B. No

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

You would need the Logic App Contributor role.

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

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-securing-a-logic-app>

#### QUESTION 23

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

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

You have an Azure Directory (Azure AD) tenant named Adatum and an Azure Subscription named Subscription1. Adatum contains a group named Developers. Subscription1 contains a resource group named Dev.

You need to provide the Developers group with the ability to create Azure logic apps in the Dev resource group.

Solution: On Dev, you assign the Contributor role to the Developers group.

Does this meet the goal?

- A. Yes
- B. No

Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

Explanation:

The Contributor role can manage all resources (and add resources) in a Resource Group.



#### QUESTION 24

DRAG DROP

You have an Azure subscription that is used by four departments in your company. The subscription contains 10 resource groups. Each department uses resources in several resource groups.

You need to send a report to the finance department. The report must detail the costs for each department.

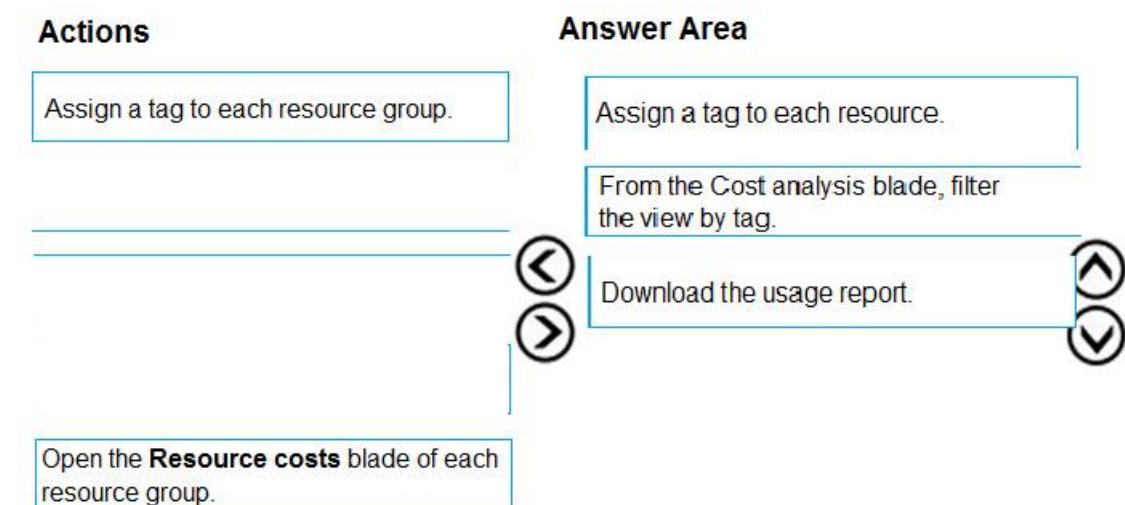
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

Select and Place:

Actions	Answer Area
Assign a tag to each resource group.	
Assign a tag to each resource.	
Download the usage report.	
From the Cost analysis blade, filter the view by tag.	
Open the <b>Resource costs</b> blade of each resource group.	

Up ▲      Down ▼

Correct Answer:


**Section: (none)**
**Explanation**
**Explanation/Reference:**

Explanation:

Box 1: Assign a tag to each resource.

You apply tags to your Azure resources giving metadata to logically organize them into a taxonomy. After you apply tags, you can retrieve all the resources in your subscription with that tag name and value. Each resource or resource group can have a maximum of 15 tag name/value pairs. Tags applied to the resource group are not inherited by the resources in that resource group.

Box 2: From the Cost analysis blade, filter the view by tag

After you get your services running, regularly check how much they're costing you. You can see the current spend and burn rate in Azure portal.



1. Visit the Subscriptions blade in Azure portal and select a subscription.

You should see the cost breakdown and burn rate in the popup blade.

2. Click Cost analysis in the list to the left to see the cost breakdown by resource. Wait 24 hours after you add a service for the data to populate.

3. You can filter by different properties like tags, resource group, and timespan. Click Apply to confirm the filters and Download if you want to export the view to a Comma-Separated Values (.csv) file.

Box 3: Download the usage report

**Reference:**

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

<https://docs.microsoft.com/en-us/azure/billing/billing-getting-started>

**QUESTION 25**

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error from a table named Event.

Which query should you run in Workspace1?

- A. Get-Event Event | where {\$\_. EventType == "error"}
- B. Event | search "error"
- C. search in (Event)\* | where EventType -eq "error"
- D. Get-Event Event | where {\$\_.EventTye -eq "error"}

**Correct Answer: B**

**Section: (none)**
**Explanation**
**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/search-queries>

<https://docs.microsoft.com/en-us/azure/azure-monitor/log-query/get-started-portal>

**QUESTION 26**  
HOTSPOT

You have an Azure subscription that contains a virtual network named VNET1 in the East US 2 region.

You have the following resources in an Azure Resource Manager template.



```
{  
    "apiVersion": "2017-03-30",  
    "type": "Microsoft.Compute/virtualMachines",  
    "name": "VM1",  
    "zones": "1",  
    "location": "EastUS2",  
    "dependsOn": [  
        "[resourceId('Microsoft.Network/networkInterfaces', 'VM1-NI')]"  
    ],  
    "properties": {  
        "hardwareProfile": {  
            "vmSize": "Standard_A2_v2"  
        },  
        "osProfile": {  
            "computerName": "VM1",  
            "adminUsername": "AzureAdmin",  
            "adminPassword": "[parameters('adminPassword')]"  
        },  
        "storageProfile": {  
            "imageReference": "[variables('image')]",  
            "osDisk": {  
                "createOption": "FromImage"  
            }  
        },  
        "networkProfile": {  
            "networkInterfaces": [  
                {  
                    "id": "[resourceId('Microsoft.Network/networkInterfaces', 'VM1-NI')]"  
                }  
            ]  
        }  
    },  
    "apiVersion": "2017-03-30",  
    "type": "Microsoft.Compute/virtualMachines",  
    "name": "VM2",  
    "zones": "2",  
    "location": "EastUS2",  
    "dependsOn": [  
        "[resourceId('Microsoft.Network/networkInterfaces', 'VM2-NI')]"  
    ],  
    "properties": {  
        "hardwareProfile": {  
            "vmSize": "Standard_A2_v2"  
        },  
        "osProfile": {  
            "computerName": "VM2",  
            "adminUsername": "AzureAdmin",  
            "adminPassword": "[parameters('adminPassword')]"  
        },  
        "storageProfile": {  
            "imageReference": "[variables('image')]",  
            "osDisk": {  
                "createOption": "FromImage"  
            }  
        },  
        "networkProfile": {  
            "networkInterfaces": [  
                {  
                    "id": "[resourceId('Microsoft.Network/networkInterfaces', 'VM2-NI')]"  
                }  
            ]  
        }  
    }  
}
```



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:**

**Answer Area**

Statements	Yes	No
VM1 and VM2 can connect to VNET1	<input type="radio"/>	<input type="radio"/>
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input type="radio"/>
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

Statements	Yes	No
VM1 and VM2 can connect to VNET1	<input checked="" type="radio"/>	<input type="radio"/>
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	<input checked="" type="radio"/>	<input type="radio"/>
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	<input type="radio"/>	<input checked="" type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Yes

Box 2: Yes

VM1 is in Zone1, while VM2 is on Zone2.

Box 3: No

**Reference:**

<https://docs.microsoft.com/en-us/azure/architecture/resiliency/recovery-loss-azure-region>

**QUESTION 27**

You have an Azure subscription named Subscription1. Subscription1 contains the resource groups in the following table.

Name	Azure region	Policy
RG1	West Europe	Policy1
RG2	North Europe	Policy2
RG3	France Central	Policy3

RG1 has a web app named WebApp1. WebApp1 is located in West Europe.

You move WebApp1 to RG2.

What is the effect of the move?

- A. The App Service plan for WebApp1 remains in West Europe. Policy2 applies to WebApp1.
- B. The App Service plan for WebApp1 moves to North Europe. Policy2 applies to WebApp1.
- C. The App Service plan for WebApp1 remains in West Europe. Policy1 applies to WebApp1.
- D. The App Service plan for WebApp1 moves to North Europe. Policy1 applies to WebApp1.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

You can move an app to another App Service plan, as long as the source plan and the target plan are in the same resource group and geographical region. The region in which your app runs is the region of the App Service plan it's in. However, you cannot change an App Service plan's region.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage>

## QUESTION 28

HOTSPOT

You have an Azure subscription named Subscription1 that has a subscription ID of c276fc76-9cd4-44c9-99a7-4fd71546436e.

You need to create a custom RBAC role named CR1 that meets the following requirements:



- Can be assigned only to the resource groups in Subscription1
- Prevents the management of the access permissions for the resource groups
- Allows the viewing, creating, modifying, and deleting of resources within the resource groups

What should you specify in the assignable scopes and the permission elements of the definition of CR1? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

```
"assignableScopes": [  
    "/"  
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e"  
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"  
,  
    "permissions": [  
        {  
            "actions": [  
                "*"  
            ],  
            "additionalProperties": {},  
            "dataActions": [],  
            "notActions": [  
                "Microsoft.Authorization/"  
                "Microsoft.Resources/"  
                "Microsoft.Security/"  
            ],  
            "notDataActions": []  
        }  
    ]  
]
```



Correct Answer:

```

"assignableScopes": [
    "/",
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e",
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"
],
"permissions": [
{
    "actions": [
        "*"
    ],
    "additionalProperties": {},
    "dataActions": [],
    "notActions": [
        "Microsoft.Authorization/*",
        "Microsoft.Resources/*",
        "Microsoft.Security/*"
    ],
    "notDataActions": []
}
]

```



**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference:

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

<https://docs.microsoft.com/en-us/azure/role-based-access-control/resource-provider-operations#microsoftresources>

**QUESTION 29**

You have an Azure subscription.

Users access the resources in the subscription from either home or from customer sites. From home, users must establish a point-to-site VPN to access the Azure resources. The users on the customer sites access the Azure resources by using site-to-site VPNs.

You have a line-of-business-app named App1 that runs on several Azure virtual machine. The virtual machines run Windows Server 2016.

You need to ensure that the connections to App1 are spread across all the virtual machines.

What are two possible Azure services that you can use? Each correct answer presents a complete solution.

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

- A. an internal load balancer
- B. a public load balancer
- C. an Azure Content Delivery Network (CDN)
- D. Traffic Manager
- E. an Azure Application Gateway

**Correct Answer:** AE  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

Explanation:  
Line-of-business apps are custom apps that are used by internal staff members.

**QUESTION 30**

You have an Azure subscription.

You have 100 Azure virtual machines.

You need to quickly identify underutilized virtual machines that can have their service tier changed to a less expensive offering.

Which blade should you use?

- A. Monitor
- B. Advisor
- C. Metrics
- D. Customer insights

**Correct Answer:** B  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

Explanation:  
Advisor helps you optimize and reduce your overall Azure spend by identifying idle and underutilized resources. You can get cost recommendations from the Cost tab on the Advisor dashboard.



Reference:  
<https://docs.microsoft.com/en-us/azure/advisor/advisor-cost-recommendations>

**QUESTION 31**  
**HOTSPOT**

You have an Azure Active Directory (Azure AD) tenant.

You need to create a conditional access policy that requires all users to use multi-factor authentication when they access the Azure portal.

Which three settings should you configure? To answer, select the appropriate settings in the answer area.

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

**Hot Area:**

\* Name

Policy1



### Assignments

Users and groups 



0 users and groups selected

Cloud apps 



0 cloud apps selected

Conditions 



0 conditions selected

### Access controls

Grant 



0 controls selected

Session 



0 controls selected

### Enable policy

On

Off

**Correct Answer:**

\* Name  
 

### Assignments

- [Users and groups !\[\]\(8bc1da57d572189fc6bc5bc53de56bcc\_img.jpg\)](#) >  
0 users and groups selected
- [Cloud apps !\[\]\(f87ad3652807beabf2cce579a67de727\_img.jpg\)](#) >  
0 cloud apps selected
- [Conditions !\[\]\(f51d10f3d54aa490c04bb6a4493d0136\_img.jpg\)](#) >  
0 conditions selected

### Access controls

- [Grant !\[\]\(979e60852546cca3272bd1c7d951e48e\_img.jpg\)](#) >  
0 controls selected
- [Session !\[\]\(efcb947149e6036c844b92ad17f3aafc\_img.jpg\)](#) >  
0 controls selected

### Enable policy

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/app-based-mfa>

**QUESTION 32**

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com.

The User administrator role is assigned to a user named Admin1.

An external partner has a Microsoft account that uses the user1@outlook.com sign in.

Admin1 attempts to invite the external partner to sign in to the Azure AD tenant and receives the following error message: "Unable to invite user user1@outlook.com – Generic authorization exception."

You need to ensure that Admin1 can invite the external partner to sign in to the Azure AD tenant.

What should you do?

- A. From the Users blade, modify the External collaboration settings.
- B. From the Custom domain names blade, add a custom domain.
- C. From the Organizational relationships blade, add an identity provider.
- D. From the Roles and administrators blade, assign the Security administrator role to Admin1.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

<https://techcommunity.microsoft.com/t5/Azure-Active-Directory/Generic-authorization-exception-inviting-Azure-AD-gests/td-p/274742>

### QUESTION 33

You have an Azure subscription that contains a user account named User1.

You need to ensure that User1 can assign a policy to the tenant root management group.

What should you do?

- A. Assign the Owner role for the Azure Subscription to User1, and then modify the default conditional access policies.
- B. Assign the Owner role for the Azure subscription to User1, and then instruct User1 to configure access management for Azure resources.
- C. Assign the Global administrator role to User1, and then instruct User1 to configure access management for Azure resources.
- D. Create a new management group and delegate User1 as the owner of the new management group.

**Correct Answer:** B

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Explanation:

The following chart shows the list of roles and the supported actions on management groups.

Azure Role Name	Create	Rename	Move**	Delete	Assign Access	Assign Policy	Read
Owner	X	X	X	X	X	X	X
Contributor	X	X	X	X			X
MG Contributor*	X	X	X	X			X
Reader							X
MG Reader*							X
Resource Policy Contributor							X
User Access Administrator				X		X	

Note:

Each directory is given a single top-level management group called the "Root" management group. This root management group is built into the hierarchy to have all management groups and subscriptions fold up to it. This root management group allows for global policies and Azure role assignments to be applied at the directory level. The Azure AD Global Administrator needs to elevate themselves to the User Access Administrator role of this root group initially. After elevating access, the administrator can assign any Azure role to other directory users or groups to manage the hierarchy. As administrator, you can assign your own account as owner of the root management group.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/management-groups/overview>

### QUESTION 34

## HOTSPOT

You have an Azure Active Directory (Azure AD) tenant named adatum.com. Adatum.com contains the groups in the following table.

Name	Group type	Membership type	Membership rule
Group1	Security	Dynamic user	(user.city -startsWith "m")
Group2	Microsoft Office 365	Dynamic user	(user.department -notIn ["human resource"])
Group3	Microsoft Office 365	Assigned	Not applicable

You create two user accounts that are configured as shown in the following table.

Name	City	Department	Office 365 license assigned
User1	Montreal	Human resources	Yes
User2	Melbourne	Marketing	No

To which groups do User1 and User2 belong? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

User1: 

- Group1 only
- Group2 only
- Group3 only
- Group1 and Group2 only
- Group1 and Group3 only
- Group2 and Group3 only
- Group1, Group2, and Group3

User2: 

- Group1 only
- Group2 only
- Group3 only
- Group1 and Group2 only
- Group1 and Group3 only
- Group2 and Group3 only
- Group1, Group2, and Group3

**Correct Answer:**

### Answer Area

User1:	<input type="checkbox"/>
	Group1 only
	Group2 only
	Group3 only
	Group1 and Group2 only
	Group1 and Group3 only
	Group2 and Group3 only
	Group1, Group2, and Group3
User2:	<input type="checkbox"/>
	Group1 only
	Group2 only
	Group3 only
	Group1 and Group2 only
	Group1 and Group3 only
	Group2 and Group3 only
	Group1, Group2, and Group3

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Group 1 only

First rule applies

Box 2: Group1 and Group2 only

Both membership rules apply.

Reference:

<https://docs.microsoft.com/en-us/sccm/core/clients/manage/collections/create-collections>



### **QUESTION 35**

HOTSPOT

You have a hybrid deployment of Azure Active Directory (Azure AD) that contains the users shown in the following table.

Name	Type	Source
User1	Member	Azure AD
User2	Member	Windows Server Active Directory
User3	Guest	Microsoft account

You need to modify the JobTitle and UsageLocation attributes for the users.

For which users can you modify the attributes from Azure AD? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

JobTitle:	<input type="text"/>
	▼
	User1 only
	User1 and User2 only
	User1 and User3 only
	User1, User2, and User3

UsageLocation:	<input type="text"/>
	▼
	User1 only
	User1 and User2 only
	User1 and User3 only
	User1, User2, and User3

**Correct Answer:**

**Answer Area**

JobTitle:	<input type="text"/>
	▼
	User1 only
	User1 and User2 only
	<b>User1 and User3 only</b>
	User1, User2, and User3

UsageLocation:	<input type="text"/>
	▼
	User1 only
	User1 and User2 only
	User1 and User3 only
	<b>User1, User2, and User3</b>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: User1 and User3 only

You must use Windows Server Active Directory to update the identity, contact info, or job info for users whose source of authority is Windows Server Active Directory.

Box 2: User1, User2, and User3

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-users-profile-azure-portal>

**QUESTION 36**

**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 need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Network Contributor role at the subscription level to Admin1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

### QUESTION 37

**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 need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Owner role at the subscription level to Admin1.

Does this meet the goal?

- A. Yes

- B. No



**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

### QUESTION 38

**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 need to ensure that an Azure Active Directory (Azure AD) user named Admin1 is assigned the required role to enable Traffic Analytics for an Azure subscription.

Solution: You assign the Reader role at the subscription level to Admin1.

Does this meet the goal?

- A. Yes

- B. No

**Correct Answer:** A

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Your account must meet one of the following to enable traffic analytics:

Your account must have any one of the following Azure roles at the subscription scope: owner, contributor, reader, or network contributor.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics-faq>

**QUESTION 39**

You have an Azure subscription that contains a user named User1.

You need to ensure that User1 can deploy virtual machines and manage virtual networks. The solution must use the principle of least privilege.

Which role-based access control (RBAC) role should you assign to User1?

- A. Owner
- B. Virtual Machine Contributor
- C. Contributor
- D. Virtual Machine Administrator Login

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Virtual Machine Contributor: Lets you manage virtual machines, but not access to them, and not the virtual network or storage account they're connected to.



Incorrect Answers:

A: Owner: Grants full access to manage all resources, including the ability to assign roles in Azure RBAC.

C: Contributor: Grants full access to manage all resources, but does not allow you to assign roles in Azure RBAC.

D: Virtual Machine Administrator Login: View Virtual Machines in the portal and login as administrator.

Reference:

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

**QUESTION 40**

**HOTSPOT**

You have an Azure Active Directory (Azure AD) tenant that contains three global administrators named Admin1, Admin2, and Admin3.

The tenant is associated to an Azure subscription. Access control for the subscription is configured as shown in the **Access control** exhibit. (Click the **Access Control** tab.)

Manage access to Azure resources for users, groups, service principals and managed identities at this scope by creating role assignments. [Learn more](#)

Name 	Type 	Role 
<input type="text" value="Search by name or email"/>	<input type="button" value="All"/>	<input type="button" value="Owner"/>
Scope 	Group by 	Search for a role
<input type="button" value="All scopes"/>	<input type="button" value="Role"/>	<input checked="" type="checkbox"/> Select all <input checked="" type="checkbox"/> Owner

1 items (1 Users)

<input type="checkbox"/>	NAME	TYPE	ROLE	SCOPE
<b>OWNER</b>				
	Admin3	User	Owner 	This resource

Admin3@contltd...

You sign in to the Azure portal as Admin1 and configure the tenant as shown in the **Tenant** exhibit. (Click the **Tenant** tab.)

 Save  Discard

### Directory properties

\* Name: Cont190525outlook

Country or region: Slovenia

Location: EU Model Clause compliant datacenters

Notification language: English

Directory ID: a11d21a3-faca-a7

Technical contact:

Global privacy contact:

Privacy statement URL:

### Access management for Azure resources

Admin1@Cont190525outlook.onmicrosoft.com (Admin1@Cont190525outlook.onmicrosoft.com) can manage access to all Azure subscriptions and management groups in this directory. [Learn more](#)



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:**

**Answer Area**

Statements	Yes	No
Admin1 can add Admin2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>
Admin3 can add Admin2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

Statements	Yes	No
Admin1 can add Admin2 as an owner of the subscription.	<input type="radio"/>	<input checked="" type="radio"/>
Admin3 can add Admin2 as an owner of the subscription.	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Box 1: No

Only Admin3, the owner, can assign ownership.

Box 2: Yes

Reference:

<https://docs.microsoft.com/en-us/azure/cost-management-billing/manage/add-change-subscription-administrator>**QUESTION 41**

You have an Azure subscription named Subscription1 that contains an Azure virtual machine named VM1. VM1 is in a resource group named RG1.

VM1 runs services that will be used to deploy resources to RG1.

You need to ensure that a service running on VM1 can manage the resources in RG1 by using the identity of VM1.

What should you do first?

- A. From the Azure portal, modify the Managed Identity settings of VM1
- B. From the Azure portal, modify the Access control (IAM) settings of RG1
- C. From the Azure portal, modify the Access control (IAM) settings of VM1
- D. From the Azure portal, modify the Policies settings of RG1

**Correct Answer:** A**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Managed identities for Azure resources provides Azure services with an automatically managed identity in Azure Active Directory. You can use this identity to authenticate to any service that supports Azure AD authentication, without having credentials in your code.

You can enable and disable the system-assigned managed identity for VM using the Azure portal.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/qs-configure-portal-windows-vm>

**QUESTION 42**

You have an Azure subscription that contains a resource group named TestRG.

You use TestRG to validate an Azure deployment.

TestRG contains the following resources:

Name	Type	Description
VM1	Virtual Machine	VM1 is running and configured to back up to Vault1 daily
Vault1	Recovery Services Vault	Vault includes all backups of VM1
VNET1	Virtual Network	VNET1 has a resource lock of type Delete

You need to delete TestRG.

What should you do first?

- A. Modify the backup configurations of VM1 and modify the resource lock type of VNET1
- B. Remove the resource lock from VNET1 and delete all data in Vault1
- C. Turn off VM1 and remove the resource lock from VNET1
- D. Turn off VM1 and delete all data in Vault1

**Correct Answer:** C

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Explanation:

When you delete a resource group, all of its resources are also deleted. Deleting a resource group deletes all of its template deployments and currently stored operations.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/delete-resource-group?tabs=azure-powershell>

## 02- Manage Azure identities and governance

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

#### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- File servers
- Domain controllers
- Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

#### Requirements

#### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

#### Technical Requirements

Contoso must meet the following technical requirements:

- Move all the virtual machines for App1 to Azure.
- Minimize the number of open ports between the App1 tiers.
- Ensure that all the virtual machines for App1 are protected by backups.
- Copy the blueprint files to Azure over the Internet.
- Ensure that the blueprint files are stored in the archive storage tier.
- Ensure that partner access to the blueprint files is secured and temporary.



- Prevent user passwords or hashes of passwords from being stored in Azure.
- Use unmanaged standard storage for the hard disks of the virtual machines.
- Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
- Minimize administrative effort whenever possible.

#### User Requirements

Contoso identifies the following requirements for users:

- Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- Designate a new user named Admin1 as the service admin for the Azure subscription.
- Admin1 must receive email alerts regarding service outages.
- Ensure that a new user named User3 can create network objects for the Azure subscription.

A.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 2

HOTSPOT

You need to configure the Device settings to meet the technical requirements and the user requirements.

Which two settings should you modify? To answer, select the appropriate settings in the answer area.

**Hot Area:**



## Answer Area

Save Discard Got feedback?

Users may join devices to Azure AD ⓘ

All Selected None

Selected  
No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected None

Selected  
No member selected

Users may register their devices with Azure AD ⓘ

All None

Require Multi-Factor Auth to join devices ⓘ

Yes No

Maximum number of devices per user ⓘ

50

Correct Answer:

**Answer Area**

Save Discard | Got feedback?

Users may join devices to Azure AD ⓘ

All Selected None

Selected  
No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected None

Selected  
No member selected

Users may register their devices with Azure AD ⓘ

All None

Require Multi-Factor Auth to join devices ⓘ

Yes No

Maximum number of devices per user ⓘ

50

Section: (none)



Explanation

**Explanation/Reference:**

Explanation:

Box 1: Selected

Only selected users should be able to join devices

Box 2: Selected

Designate a new user named Admin1 as the service admin for the Azure subscription.

## 01 - Implement and manage storage

### QUESTION 1

You have an Azure Storage account named storage1.

You plan to use AzCopy to copy data to storage1.

You need to identify the storage services in storage1 to which you can copy the data.

What should you identify?

- A. blob, file, table, and queue
- B. blob and file only
- C. file and table only
- D. file only
- E. blob, table, and queue only

**Correct Answer:** B

**Section:** (none)

**Explanation**

#### Explanation/Reference:

AzCopy is a command-line utility that you can use to copy blobs or files to or from a storage account.

Incorrect Answers:

A, C, E: AzCopy does not support table and queue storage services.

D: AzCopy supports file storage services, as well as blob storage services.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>

### QUESTION 2

You have an Azure subscription that contains an Azure Storage account.

You plan to create an Azure container instance named container1 that will use a Docker image named Image1. Image1 contains a Microsoft SQL Server instance that requires persistent storage.

You need to configure a storage service for Container1.

What should you use?

- A. Azure Files
- B. Azure Blob storage
- C. Azure Queue storage
- D. Azure Table storage

**Correct Answer:** D

**Section:** (none)

**Explanation**

#### Explanation/Reference:

### QUESTION 3

You have an app named App1 that runs on two Azure virtual machines named VM1 and VM2.

You plan to implement an Azure Availability Set for App1. The solution must ensure that App1 is available during planned maintenance of the hardware hosting VM1 and VM2.

What should you include in the Availability Set?

- A. one update domain
- B. two fault domains
- C. one fault domain
- D. two update domains

**Correct Answer:** D

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Microsoft updates, which Microsoft refers to as planned maintenance events, sometimes require that VMs be rebooted to complete the update. To reduce the impact on VMs, the Azure fabric is divided into update domains to ensure that not all VMs are rebooted at the same time.

Incorrect Answers:

A: An update domain is a group of VMs and underlying physical hardware that can be rebooted at the same time.

B, C: A fault domain shares common storage as well as a common power source and network switch. It is used to protect against unplanned system failure.

References: <https://petri.com/understanding-azure-availability-sets> <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets>

**QUESTION 4**

You have an on-premises server that contains a folder named D:\Folder1.

You need to copy the contents of D:\Folder1 to the public container in an Azure Storage account named contosodata.

Which command should you run?

- A. `https://contosodata.blob.core.windows.net/public`
- B. `azcopy sync D:\folder1 https://contosodata.blob.core.windows.net/public --snapshot`
- C. `azcopy copy D:\folder1 https://contosodata.blob.core.windows.net/public --recursive`
- D. `az storage blob copy start-batch D:\Folder1 https://contosodata.blob.core.windows.net/public`

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

The azcopy copy command copies a directory (and all of the files in that directory) to a blob container. The result is a directory in the container by the same name.

Incorrect Answers:

B: The azcopy sync command replicates the source location to the destination location. However, the file is skipped if the last modified time in the destination is more recent.

D: The az storage blob copy start-batch command copies multiple blobs to a blob container.

Reference: <https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-blobs> <https://docs.microsoft.com/en-us/azure/storage/common/storage-ref-azcopy-copy>

**QUESTION 5**

You have an Azure subscription named Subscription1 that contains the storage accounts shown in the following table:

Name	Account kind	Azure service that contains data
storage1	Storage	File
storage2	StorageV2 (general purpose v2)	File, Table
storage3	StorageV2 (general purpose v2)	Queue
storage4	BlobStorage	Blob

You plan to use the Azure Import/Export service to export data from Subscription1.

You need to identify which storage account can be used to export the data.

What should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Azure Import/Export service supports the following of storage accounts:

- Standard General Purpose v2 storage accounts (recommended for most scenarios)

- Blob Storage accounts
- General Purpose v1 storage accounts (both Classic or Azure Resource Manager deployments),

Azure Import/Export service supports the following storage types:

- Import supports Azure Blob storage and Azure File storage
- Export supports Azure Blob storage

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-requirements>

#### QUESTION 6

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

Name	Kind	Performance	Replication	Access tier
storage1	Storage (general purpose v1)	Premium	Geo-redundant storage (GRS)	None
storage2	StorageV2 (general purpose v2)	Standard	Locally-redundant storage (LRS)	Cool
storage3	StorageV2 (general purpose v2)	Premium	Read-access geo-redundant storage (RA-GRS)	Hot
storage4	BlobStorage	Standard	Locally-redundant storage (LRS)	Hot

You need to identify which storage account can be converted to zone-redundant storage (ZRS) replication by requesting a live migration from Azure support.

What should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4



**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

ZRS currently supports standard general-purpose v2, FileStorage and BlockBlobStorage storage account types.

Incorrect Answers:

A, not C: Live migration is supported only for storage accounts that use LRS replication. If your account uses GRS or RA-GRS, then you need to first change your account's replication type to LRS before proceeding. This intermediary step removes the secondary endpoint provided by GRS/RA-GRS.

Also, only standard storage account types support live migration. Premium storage accounts must be migrated manually.

D: ZRS currently supports standard general-purpose v2, FileStorage and BlockBlobStorage storage account types.

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

#### QUESTION 7

You have an Azure subscription that contains a storage account named account1.

You plan to upload the disk files of a virtual machine to account1 from your on-premises network. The on-premises network uses a public IP address space of 131.107.1.0/24.

You plan to use the disk files to provision an Azure virtual machine named VM1. VM1 will be attached to a virtual network named VNet1. VNet1 uses an IP address space of 192.168.0.0/24.

You need to configure account1 to meet the following requirements:

- Ensure that you can upload the disk files to account1.
- Ensure that you can attach the disks to VM1.
- Prevent all other access to account1.

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

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

- A. From the Firewalls and virtual networks blade of account1, select Selected networks.
- B. From the Firewalls and virtual networks blade of account1, select Allow trusted Microsoft services to access this storage account.
- C. From the Firewalls and virtual networks blade of account1, add the 131.107.1.0/24 IP address range.
- D. From the Firewalls and virtual networks blade of account1, add VNet1.
- E. From the Service endpoints blade of VNet1, add a service endpoint.

**Correct Answer:** AE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A: By default, storage accounts accept connections from clients on any network. To limit access to selected networks, you must first change the default action.

Azure portal

1. Navigate to the storage account you want to secure.
2. Click on the settings menu called Firewalls and virtual networks.
3. To deny access by default, choose to allow access from 'Selected networks'. To allow traffic from all networks, choose to allow access from 'All networks'.
4. Click Save to apply your changes.

E: Grant access from a Virtual Network

Storage accounts can be configured to allow access only from specific Azure Virtual Networks.

By enabling a Service Endpoint for Azure Storage within the Virtual Network, traffic is ensured an optimal route to the Azure Storage service. The identities of the virtual network and the subnet are also transmitted with each request.

Reference:

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



**QUESTION 8**

DRAG DROP

You have an on-premises file server named Server1 that runs Windows Server 2016.

You have an Azure subscription that contains an Azure file share.

You deploy an Azure File Sync Storage Sync Service, and you create a sync group.

You need to synchronize files from Server1 to Azure.

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
Install the Azure File Sync agent on Server1	
Create an Azure on-premises data gateway	
Create a Recovery Services vault	>
Register Server1	<
Add a server endpoint	
Install the DFS Replication server role on Server1	

**Correct Answer:**

Actions	Answer Area
	Install the Azure File Sync agent on Server1
Create an Azure on-premises data gateway	Register Server1
Create a Recovery Services vault	>
	Add a server endpoint
Install the DFS Replication server role on Server1	

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Step 1: Install the Azure File Sync agent on Server1

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share

Step 2: Register Server1.

Register Windows Server with Storage Sync Service

Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service.

Step 3: Add a server endpoint

Create a sync group and a cloud endpoint.

A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.

Reference:  
<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

**QUESTION 9**  
HOTSPOT

You plan to create an Azure Storage account in the Azure region of East US 2.

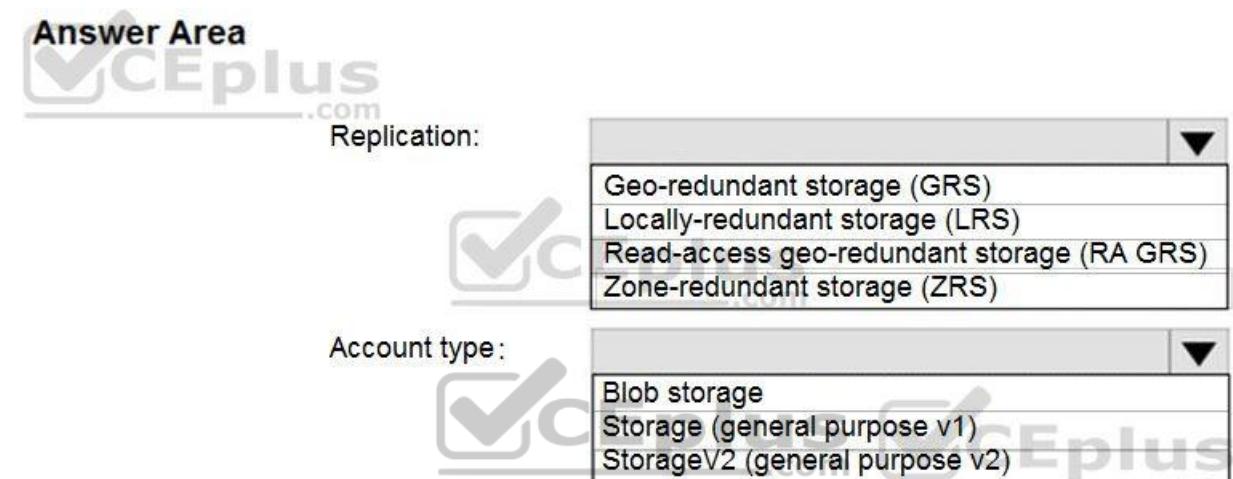
You need to create a storage account that meets the following requirements:

- Replicates synchronously.
- Remains available if a single data center in the region fails.

How should you configure the storage account? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

Answer Area  


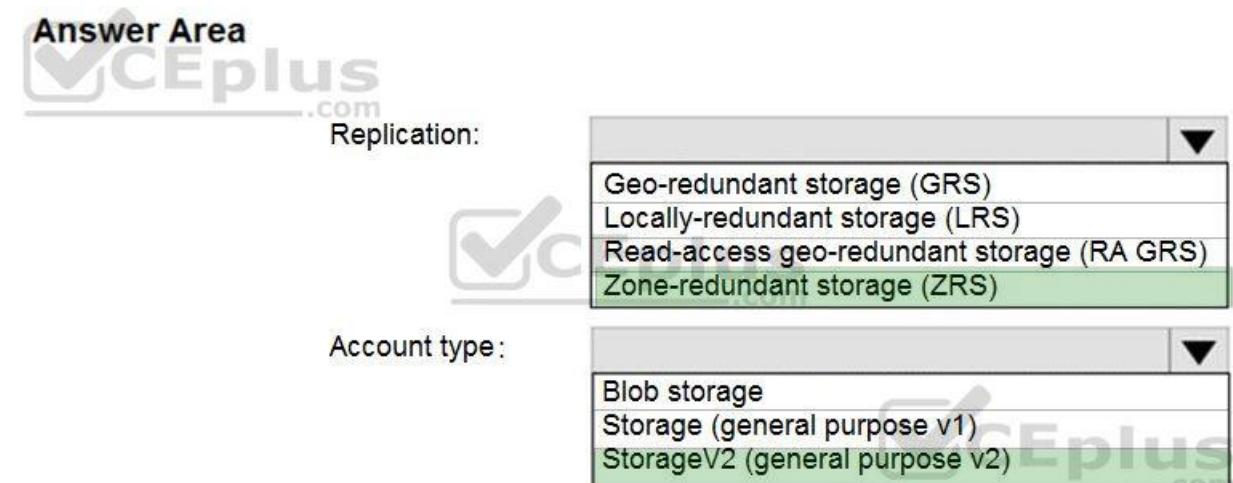
Replication:

Geo-redundant storage (GRS)  
Locally-redundant storage (LRS)  
Read-access geo-redundant storage (RA GRS)  
Zone-redundant storage (ZRS)

Account type:

Blob storage  
Storage (general purpose v1)  
StorageV2 (general purpose v2)

**Correct Answer:**

Answer Area  


Replication:

Geo-redundant storage (GRS)  
Locally-redundant storage (LRS)  
Read-access geo-redundant storage (RA GRS)  
Zone-redundant storage (ZRS)

Account type:

Blob storage  
Storage (general purpose v1)  
StorageV2 (general purpose v2)

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Zone-redundant storage (ZRS)

Zone-redundant storage (ZRS) replicates your data synchronously across three storage clusters in a single region.

LRS would not remain available if a data center in the region fails  
GRS and RA GRS use asynchronous replication.

Box 2: StorageV2 (general purpose V2)  
ZRS only support GPv2.

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

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

**QUESTION 10**  
HOTSPOT

You have an Azure Storage account named storage1 that uses Azure Blob storage and Azure File storage.

You need to use AzCopy to copy data to the blob storage and file storage in storage1.

Which authentication method should you use for each type of storage? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

Answer Area

**Blob storage:**

Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

**File storage:**

Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

**Correct Answer:**

**Answer Area**


Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

**File storage:**

Azure Active Directory (Azure AD) only
Shared access signatures (SAS) only
Access keys and shared access signatures (SAS) only
Azure Active Directory (Azure AD) and shared access signatures (SAS) only
Azure Active Directory (Azure AD), access keys, and shared access signatures (SAS)

**Section: (none)**
**Explanation**
**Explanation/Reference:**

Explanation:

You can provide authorization credentials by using Azure Active Directory (AD), or by using a Shared Access Signature (SAS) token.

Box 1:

Both Azure Active Directory (AD) and Shared Access Signature (SAS) token are supported for Blob storage.



Box 2:

Only Shared Access Signature (SAS) token is supported for File storage.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-use-azcopy-v10>
**QUESTION 11**
**HOTSPOT**

You have an Azure subscription named Subscription1 that contains the resources shown in the following table:

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West US	<i>Not applicable</i>
Vault1	Recovery Services vault	West Europe	RG1
storage1	Storage account	East US	RG2
storage2	Storage account	West US	RG1
storage3	Storage account	West Europe	RG2
Analytics1	Log Analytics workspace	East US	RG1
Analytics2	Log Analytics workspace	West US	RG2
Analytics3	Log Analytics workspace	West Europe	RG1

You plan to configure Azure Backup reports for Vault1.

You are configuring the Diagnostics settings for the AzureBackupReports log.

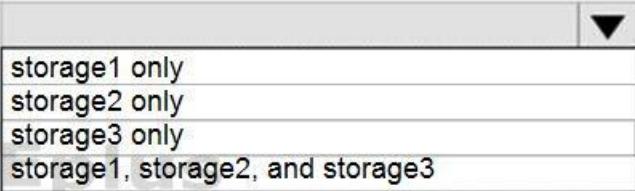
Which storage accounts and which Log Analytics workspaces can you use for the Azure Backup reports of Vault1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Hot Area:**

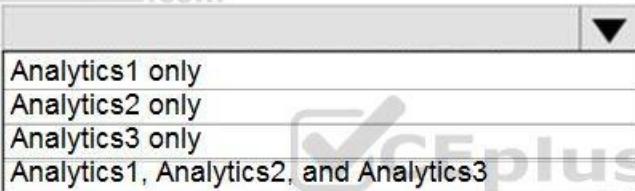
**Answer Area**

**Storage accounts:**



storage1 only  
storage2 only  
storage3 only  
storage1, storage2, and storage3

**Log Analytics workspaces:**

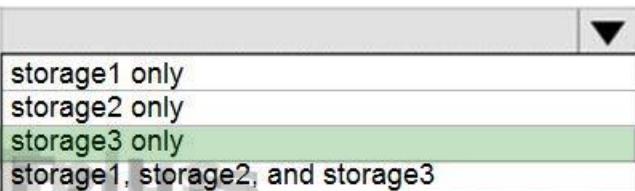


Analytics1 only  
Analytics2 only  
Analytics3 only  
Analytics1, Analytics2, and Analytics3

**Correct Answer:**

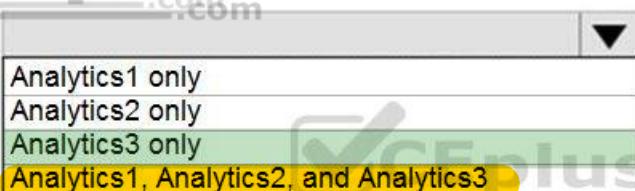
**Answer Area**

**Storage accounts:**



storage1 only  
storage2 only  
**storage3 only**  
storage1, storage2, and storage3

**Log Analytics workspaces:**



Analytics1 only  
Analytics2 only  
**Analytics3 only**  
**Analytics1, Analytics2, and Analytics3**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: storage3 only

Vault1 and storage3 are both in West Europe.

Box 2: Analytics3

Vault1 and Analytics3 are both in West Europe.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-configure-reports>

**QUESTION 12**

**HOTSPOT**

You have an Azure subscription named Subscription1.

In Subscription1, you create an Azure file share named share1.

You create a shared access signature (SAS) named SAS1 as shown in the following exhibit:

Allowed services 

Blob  File  Queue  Table

Allowed resource types 

Service  Container  Object

Allowed permissions 

Read  Write  Delete  List  Add  Create  Update  Process

Start and expiry date/time 

Start  
2018-09-01  2:00:00 PM

End  
2018-09-14  2:00:00 PM

(UTC+02:00) --- Current Timezone --- 

Allowed IP addresses 

193.77.134.10-193.77.134.50 

Allowed protocols 

HTTPS only  HTTPS and HTTP

Signing key 

key1 

**Generate SAS and connection string**



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

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

**Hot Area:**

**Answer Area**

If on September 2, 2018, you run Microsoft Azure Storage Explorer on a computer that has an IP address of 193.77.134.1, and you use SAS1 to connect to the storage account, you [answer choice].

If on September 10, 2018, you run the net use command on a computer that has an IP address of 193.77.134.50, and you use SAS1 as the password to connect to share1, you [answer choice].

**will be prompted for credentials**

**will have no access**

**will have read, write, and list access**

**will have read-only access**

**will be prompted for credentials**

**will have no access**

**will have read, write, and list access**

**will have read-only access**

**Correct Answer:**

**Answer Area**

If on September 2, 2018, you run Microsoft Azure Storage Explorer on a computer that has an IP address of 193.77.134.1, and you use SAS1 to connect to the storage account, you [answer choice].

If on September 10, 2018, you run the net use command on a computer that has an IP address of 193.77.134.50, and you use SAS1 as the password to connect to share1, you [answer choice].

**will be prompted for credentials**

**will have no access**

**will have read, write, and list access**

**will have read-only access**

**will be prompted for credentials**

**will have no access**

**will have read, write, and list access**

**will have read-only access**

**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

Box 1: Will have no access  
The IP 193.77.134.1 does not have access on the SAS.

Box 2: Will have read, write, and list access  
The net use command is used to connect to file shares.

Reference:  
<https://docs.microsoft.com/en-us/azure/storage/common/storage-dotnet-shared-access-signature-part-1>

<https://docs.microsoft.com/en-us/azure/vs-azure-tools-storage-manage-with-storage-explorer?tabs=windows>

**QUESTION 13**  
**HOTSPOT**

You have Azure subscription that includes following Azure file shares:

Name	In storage account	Location
share1	storage1	West US
share2	storage1	West US

You have the following on-premises servers:

Name	Folders
Server1	D:\Folder1, E:\Folder2
Server2	D:\Data

You create a Storage Sync Service named Sync1 and an Azure File Sync group named Group1. Group1 uses share1 as a cloud endpoint.

You register Server1 and Server2 in Sync1. You add D:\Folder1 on Server1 as a server endpoint of Group1.

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:**

**Answer Area**

Statements	Yes	No
share2 can be added as a cloud endpoint for Group1	<input type="radio"/>	<input checked="" type="radio"/>
E:\Folder2 on Server1 can be added as a server endpoint for Group1	<input type="radio"/>	<input checked="" type="radio"/>
D:\Data on Server2 can be added as a server endpoint for Group1	<input checked="" type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

Statements	Yes	No
share2 can be added as a cloud endpoint for Group1	<input type="radio"/>	<input checked="" type="radio"/>
E:\Folder2 on Server1 can be added as a server endpoint for Group1	<input checked="" type="radio"/>	<input type="radio"/>
D:\Data on Server2 can be added as a server endpoint for Group1	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: No

Group1 already has a cloud endpoint named Share1.

A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints.

Box 2: Yes

Yes, one or more server endpoints can be added to the sync group.

Box 3: Yes

Yes, one or more server endpoints can be added to the sync group.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

#### QUESTION 14

DRAG DROP

You have an Azure subscription named Subscription1.

You create an Azure Storage account named contosostorage, and then you create a file share named data.

Which UNC path should you include in a script that references files from the data file share? To answer, drag the appropriate values to the correct targets. 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:

Values	
blob	blob.core.windows.net
contosostorage	data
file	file.core.windows.net
portal.azure.com	subscription1

#### Answer Area

\\  .  \

Correct Answer:

Values	
blob	blob.core.windows.net
file	
portal.azure.com	subscription1

#### Answer Area

\\  .  \

Section: (none)

Explanation

Explanation/Reference:

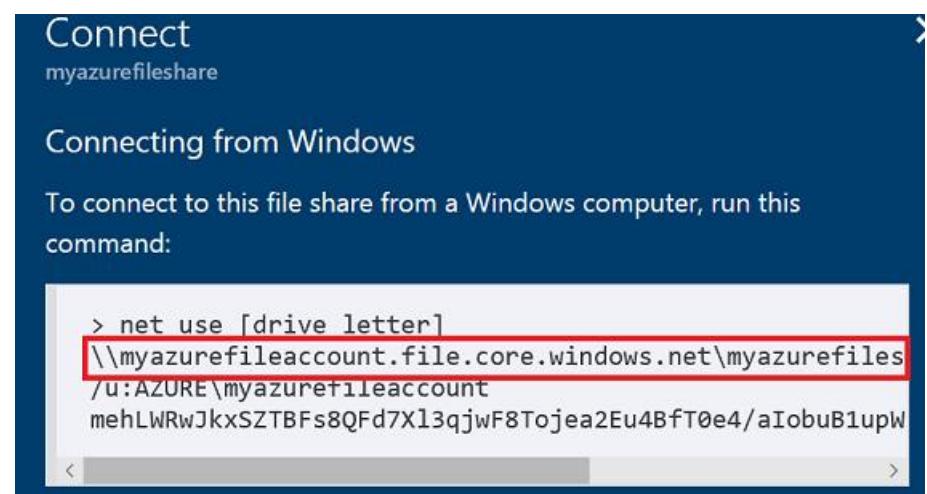
Explanation:

Box 1: contosostorage  
The name of account

Box 2: file.core.windows.net

Box 3: data  
The name of the file share is data.

Example:



Reference:  
<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows>

**QUESTION 15**  
HOTSPOT

You have an Azure subscription that contains an Azure Storage account.

You plan to copy an on-premises virtual machine image to a container named vmimages.

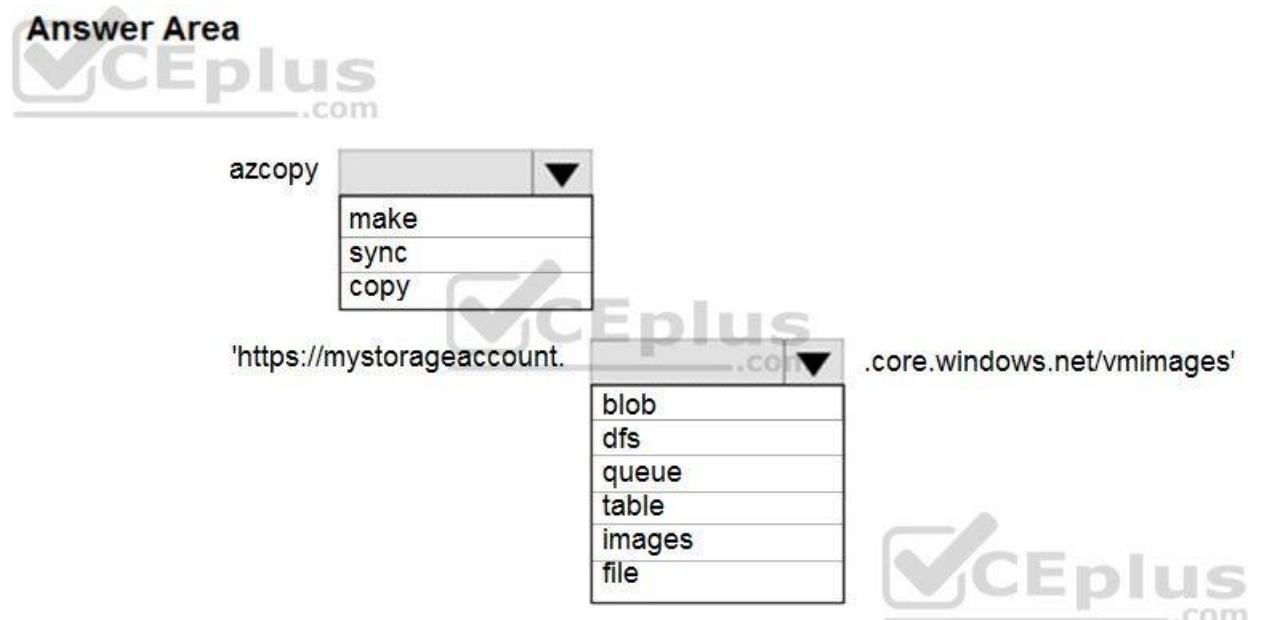
You need to create the container for the planned image.

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

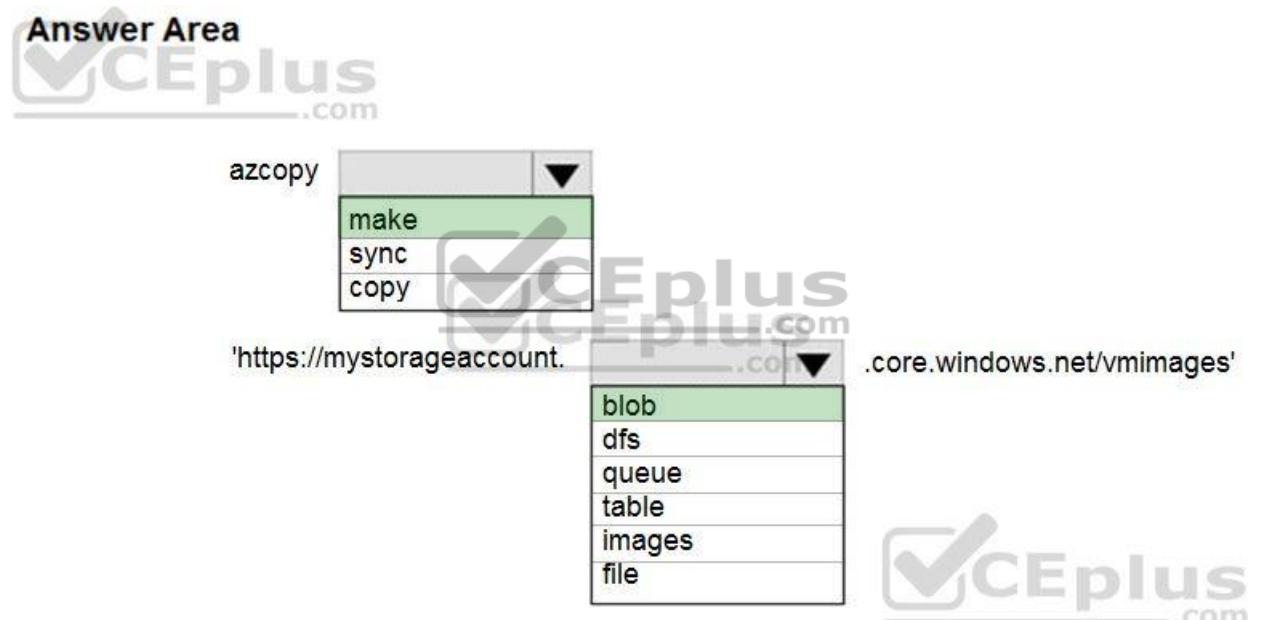
**NOTE:** Each correct selection is worth one point.

**Hot Area:**





Correct Answer:



Section: (none)

Explanation

Explanation/Reference:

**QUESTION 16**

HOTSPOT

You have an Azure File sync group that has the endpoints shown in the following table.

Name	Type
Endpoint1	Cloud endpoint
Endpoint2	Server endpoint
Endpoint3	Server endpoint

Cloud tiering is enabled for Endpoint3.

You add a file named File1 to Endpoint1 and a file named File2 to Endpoint2.

On which endpoints will File1 and File2 be available within 24 hours of adding the files? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

Answer Area  


File1:

<input checked="" type="checkbox"/> Endpoint1 only
<input type="checkbox"/> Endpoint3 only
<input checked="" type="checkbox"/> Endpoint2 and Endpoint3 only
<input type="checkbox"/> Endpoint1, Endpoint2, and Endpoint3

File2:

<input type="checkbox"/> Endpoint2 only
<input type="checkbox"/> Endpoint3 only
<input type="checkbox"/> Endpoint2 and Endpoint3 only
<input type="checkbox"/> Endpoint1, Endpoint2, and Endpoint3

**Correct Answer:**

Answer Area  


File1:

<input type="checkbox"/> Endpoint1 only
<input checked="" type="checkbox"/> Endpoint3 only
<input checked="" type="checkbox"/> Endpoint2 and Endpoint3 only
<input type="checkbox"/> Endpoint1, Endpoint2, and Endpoint3

File2:

<input type="checkbox"/> Endpoint2 only
<input type="checkbox"/> Endpoint3 only
<input type="checkbox"/> Endpoint2 and Endpoint3 only
<input checked="" type="checkbox"/> Endpoint1, Endpoint2, and Endpoint3

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

File1: Endpoint3 only

Cloud Tiering: A switch to enable or disable cloud tiering. When enabled, cloud tiering will tier files to your Azure file shares. This converts on-premises file shares into a cache, rather than a complete copy of the dataset, to help you manage space efficiency on your server. With cloud tiering, infrequently used or accessed files can be tiered to Azure Files.

File2: Endpoint1, Endpoint2, and Endpoint3

Reference:

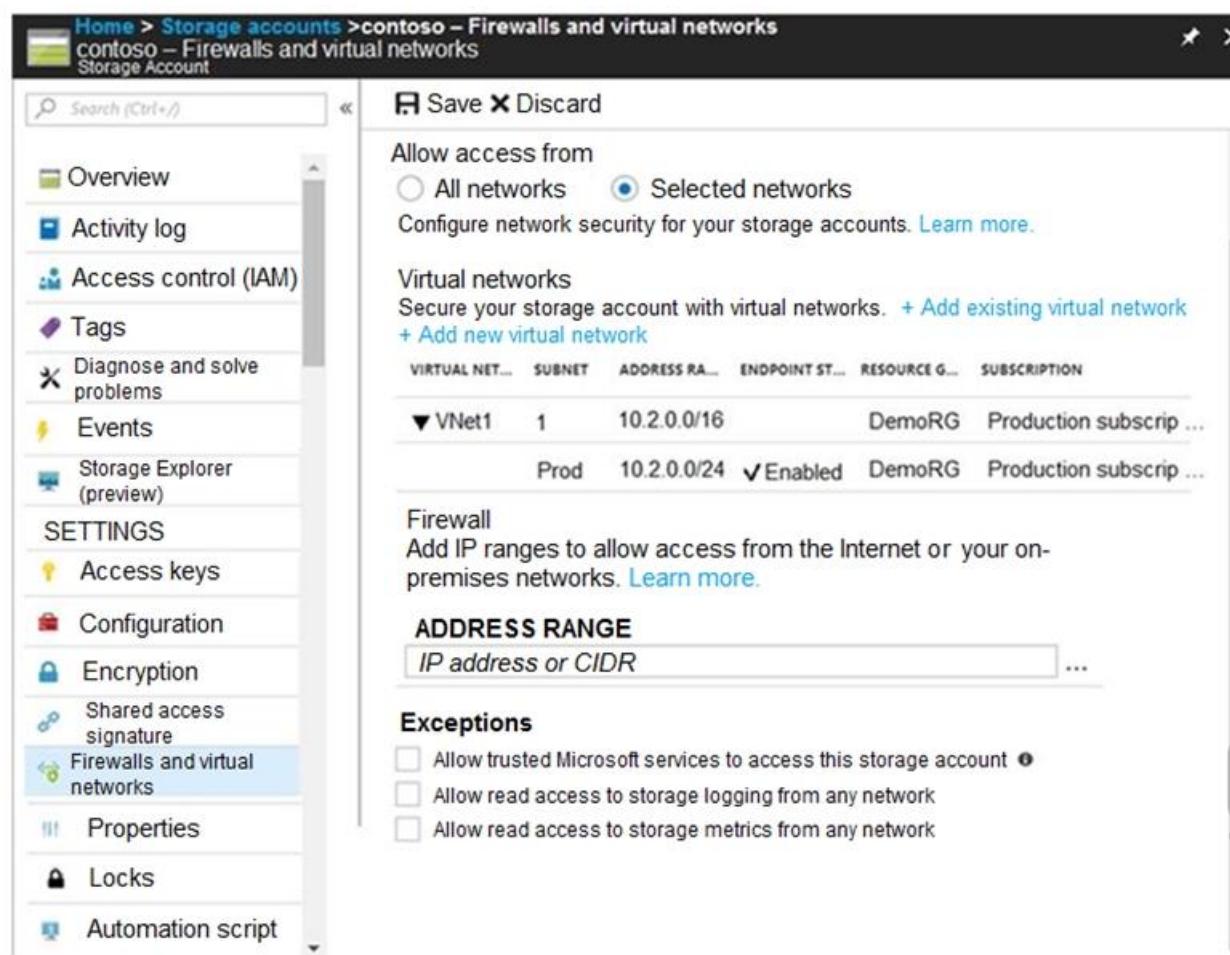
<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-cloud-tiering>

**QUESTION 17**

## HOTSPOT

You have several Azure virtual machines on a virtual network named VNet1.

You configure an Azure Storage account as shown in the following exhibit.



The screenshot shows the 'Firewalls and virtual networks' section of the Azure Storage account configuration. The left sidebar lists various storage management options. In the main pane, under 'Allow access from', the 'Selected networks' radio button is selected. A table lists two virtual networks: 'VNet1' and 'Prod'. Both are assigned the IP range '10.2.0.0/16' and are associated with the 'DemoRG' resource group and 'Production subscription'. Under 'Firewall', there is a note about adding IP ranges for internet or on-premises access. Below this is an 'ADDRESS RANGE' input field and an 'Exceptions' section containing three unchecked checkboxes: 'Allow trusted Microsoft services to access this storage account', 'Allow read access to storage logging from any network', and 'Allow read access to storage metrics from any network'.



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

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

**Hot Area:**



The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account [answer choice].



▼

always
during a backup
never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account [answer choice].

▼

always
during a backup
never

Correct Answer:



The virtual machines on the 10.2.9.0/24 subnet will have network connectivity to the file shares in the storage account [answer choice].

▼
always
during a backup
never

Azure Backup will be able to back up the unmanaged hard disks of the virtual machines in the storage account [answer choice].

▼
always
during a backup
never

Section: (none)

Explanation

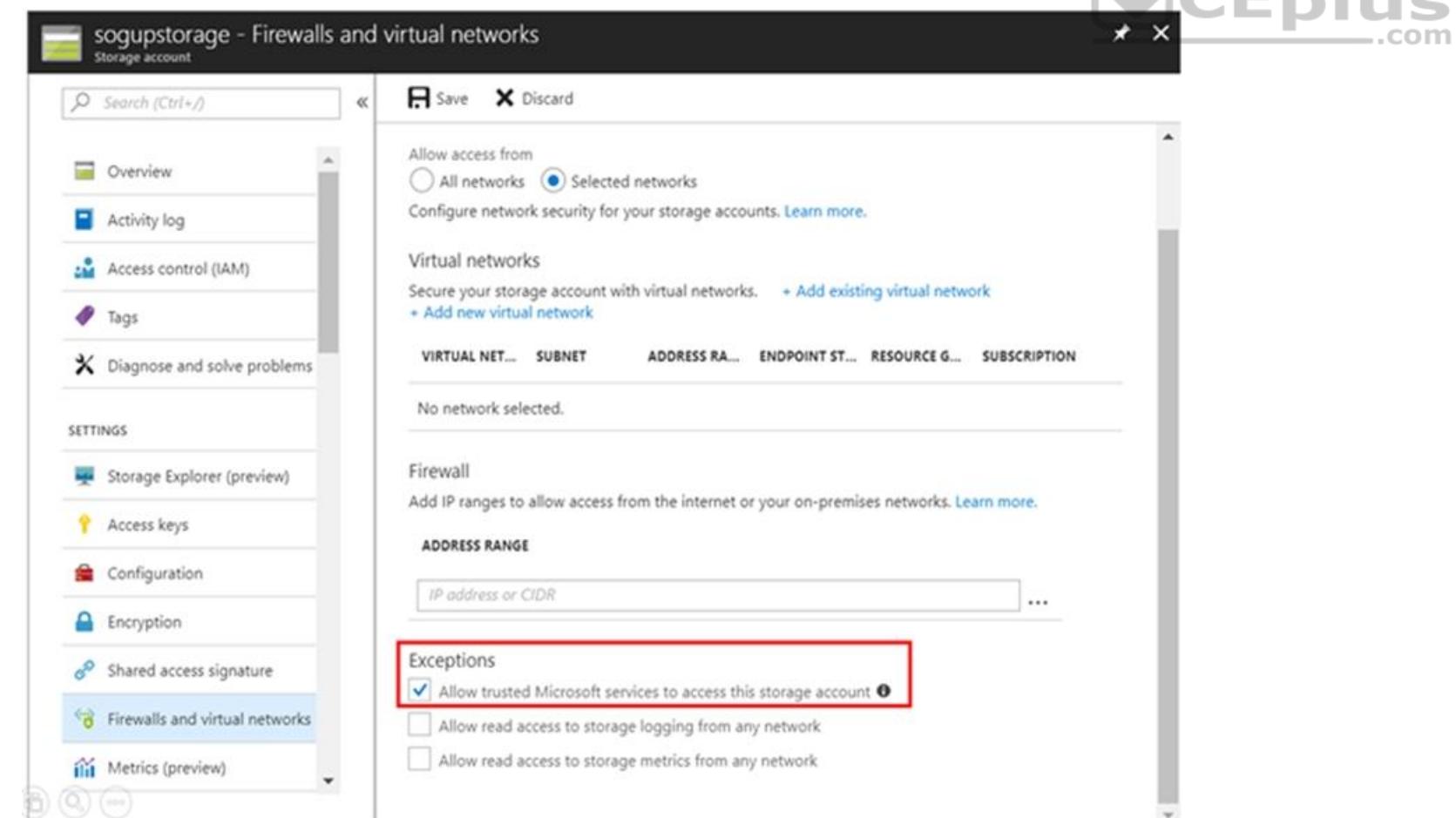
Explanation/Reference:

Explanation:

Box 1: Never

Box 2: Never

After you configure firewall and virtual network settings for your storage account, select Allow trusted Microsoft services to access this storage account as an exception to enable Azure Backup service to access the network restricted storage account.



sogupstorage - Firewalls and virtual networks

Storage account

Save Discard

Allow access from

All networks  Selected networks

Configure network security for your storage accounts. [Learn more](#).

Virtual networks

Secure your storage account with virtual networks. [+ Add existing virtual network](#) [+ Add new virtual network](#)

VIRTUAL NET... SUBNET ADDRESS RA... ENDPOINT ST... RESOURCE G... SUBSCRIPTION

No network selected.

Firewall

Add IP ranges to allow access from the internet or your on-premises networks. [Learn more](#).

ADDRESS RANGE

IP address or CIDR

Exceptions

Allow trusted Microsoft services to access this storage account [?](#)

Allow read access to storage logging from any network

Allow read access to storage metrics from any network

Reference:  
<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-use-files-windows>

<https://azure.microsoft.com/en-us/blog/azure-backup-now-supports-storage-accounts-secured-with-azure-storage-firewalls-and-virtual-networks/>

**QUESTION 18**

HOTSPOT

You have a sync group named Sync1 that has a cloud endpoint. The cloud endpoint includes a file named File1.txt.

Your on-premises network contains servers that run Windows Server 2016. The servers are configured as shown in the following table.

Name	Share	Share contents
Server1	Share1	File1.txt, File2.txt
Server2	Share2	File2.txt, File3.txt

You add Share1 as an endpoint for Sync1. One hour later, you add Share2 as an endpoint for Sync1.

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:

**Answer Area**

Statements	Yes	No
On the cloud endpoint, File1.txt is overwritten by File1.txt from Share1.	<input type="radio"/>	<input checked="" type="radio"/>
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	<input type="radio"/>	<input checked="" type="radio"/>
File1.txt from Share1 replicates to Share2.	<input checked="" type="radio"/>	<input type="radio"/>

Correct Answer:

**Answer Area**

Statements	Yes	No
On the cloud endpoint, File1.txt is overwritten by File1.txt from Share1.	<input type="radio"/>	<input type="radio"/>
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	<input type="radio"/>	<input type="radio"/>
File1.txt from Share1 replicates to Share2.	<input checked="" type="radio"/>	<input type="radio"/>

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: Yes

If you add an Azure file share that has an existing set of files as a cloud endpoint to a sync group, the existing files are merged with any other files that are already on other endpoints in the sync group.

Box 2: No

Box 3: Yes

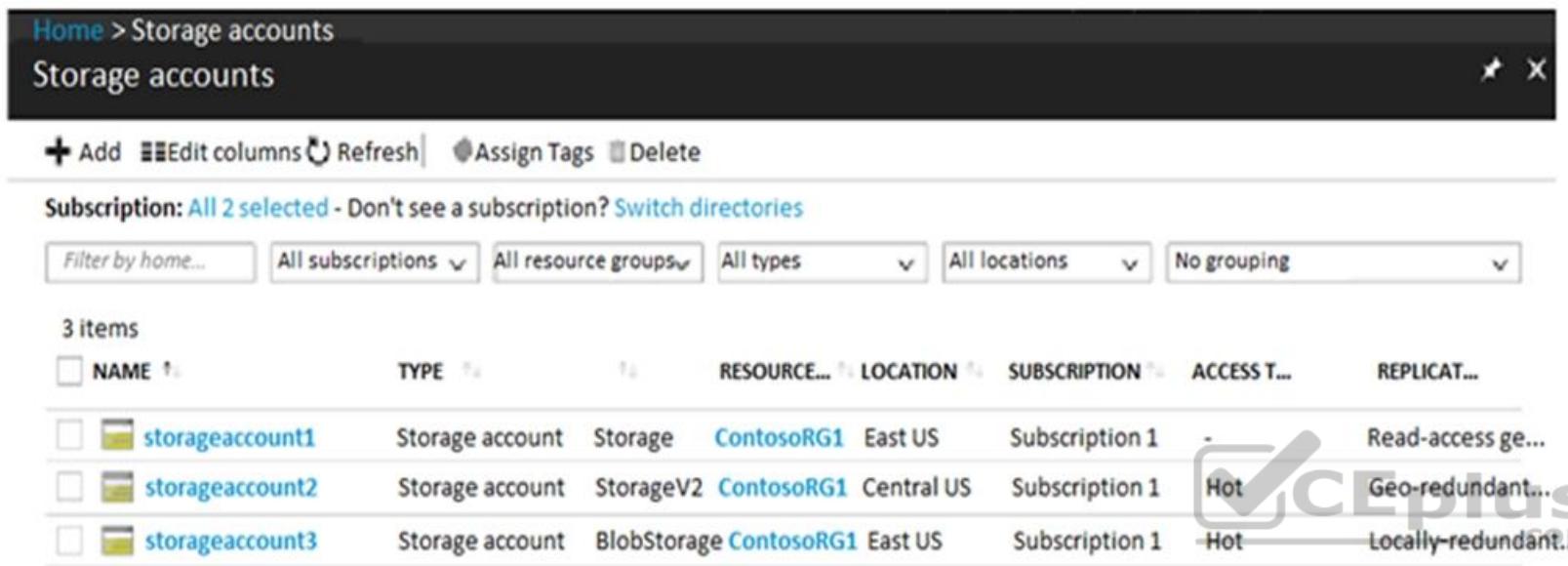
Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-planning>

#### QUESTION 19

HOTSPOT

You have Azure Storage accounts as shown in the following exhibit.



The screenshot shows the Azure Storage accounts blade. At the top, there are buttons for '+ Add', 'Edit columns', 'Refresh', 'Assign Tags', and 'Delete'. Below that, a message says 'Subscription: All 2 selected - Don't see a subscription? Switch directories'. There are filter buttons for 'Filter by home...', 'All subscriptions', 'All resource groups', 'All types', 'All locations', and 'No grouping'. A table titled '3 items' lists three storage accounts:

NAME	TYPE	RESOURCE GROUP	LOCATION	SUBSCRIPTION	ACCESS TIER	REPLICAT...	
storageaccount1	Storage account	Storage	ContosoRG1	East US	Subscription 1	Hot	Read-access ge...
storageaccount2	Storage account	StorageV2	ContosoRG1	Central US	Subscription 1	Hot	Geo-redundant...
storageaccount3	Storage account	BlobStorage	ContosoRG1	East US	Subscription 1	Hot	Locally-redundant...

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

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

You can use [answer choice] for Azure Table Storage.

storageaccount1 only
storageaccount2 only
storageaccount3 only
storageaccount1 and storageaccount2 only
storageaccount2 and storageaccount3 only

You can use [answer choice] for Azure Blob storage.

storageaccount3 only
storageaccount2 and storageaccount3 only
storageaccount1 and storageaccount3 only
all the storage accounts

Correct Answer:

## Answer Area

You can use [answer choice] for Azure Table Storage.

storageaccount1 only
storageaccount2 only
storageaccount3 only
storageaccount1 and storageaccount2 only
storageaccount2 and storageaccount3 only

You can use [answer choice] for Azure Blob storage.

storageaccount3 only
storageaccount2 and storageaccount3 only
storageaccount1 and storageaccount3 only
all the storage accounts

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: storageaccount1 and storageaccount2 only

Box 2: All the storage accounts

Note: The three different storage account options are: General-purpose v2 (GPv2) accounts, General-purpose v1 (GPv1) accounts, and Blob storage accounts.

- General-purpose v2 (GPv2) accounts are storage accounts that support all of the latest features for blobs, files, queues, and tables.
- Blob storage accounts support all the same block blob features as GPv2, but are limited to supporting only block blobs.
- General-purpose v1 (GPv1) accounts provide access to all Azure Storage services, but may not have the latest features or the lowest per gigabyte pricing.

Reference:

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

### QUESTION 20

You have Azure subscription that includes data in following locations:

Name	Type
container1	Blob container
share1	Azure files share
DB1	SQL database
Table1	Azure Table

You plan to export data by using Azure import/export job named Export1.

You need to identify the data that can be exported by using Export1.

Which data should you identify?

- A. DB1
- B. container1
- C. Share1
- D. Table1

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:****QUESTION 21**  
HOTSPOT

You have an Azure Storage account named storage1.

You have an Azure Service app named App1 and an app named App2 that runs in an Azure container instance. Each app uses a managed identity.

You need to ensure that App1 and App2 can read blobs from storage1. The solution must meet the following requirements:

- Minimize the number of secrets used.
- Ensure that App2 can only read from storage1 for the next 30 days.

What should you configure in storage1 for each app? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

App1:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

App2:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

**Correct Answer:**

**Answer Area**

App1:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

App2:

Access keys
Advanced security
Access control (IAM)
Shared access signatures (SAS)

**Section: (none)**

## Explanation

### Explanation/Reference:

Explanation:

App1: Access keys

App2: Shared access signature (SAS)

A shared access signature (SAS) provides secure delegated access to resources in your storage account without compromising the security of your data. With a SAS, you have granular control over how a client can access your data. You can control what resources the client may access, what permissions they have on those resources, and how long the SAS is valid, among other parameters.

Reference:

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

## QUESTION 22

### HOTSPOT

You need to create an Azure Storage account that meets the following requirements:

- Minimizes costs
- Supports hot, cool, and archive blob tiers
- Provides fault tolerance if a disaster affects the Azure region where the account resides

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

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

Hot Area:

**Answer Area**

az storage account create -g RG1 -n storageaccount1

--kind ▾

BlobStorage
Storage
StorageV2

--sku ▾

Standard_GRS
Standard_LRS
Standard_RAGRS
Premium_LRS

Correct Answer:

**Answer Area**

az storage account create -g RG1 -n storageaccount1

--kind ▾

BlobStorage
Storage
StorageV2

--sku ▾

Standard_GRS
Standard_LRS
Standard_RAGRS
Premium_LRS

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

**Box 1: StorageV2**

You may only tier your object storage data to hot, cool, or archive in Blob storage and General Purpose v2 (GPv2) accounts. General Purpose v1 (GPv1) accounts do not support tiering.

General-purpose v2 accounts deliver the lowest per-gigabyte capacity prices for Azure Storage, as well as industry-competitive transaction prices.

**Box 2: Standard\_GRS**

Geo-redundant storage (GRS): Cross-regional replication to protect against region-wide unavailability.

**Incorrect Answers:**

Locally-redundant storage (LRS): A simple, low-cost replication strategy. Data is replicated within a single storage scale unit.

Read-access geo-redundant storage (RA-GRS): Cross-regional replication with read access to the replica. RA-GRS provides read-only access to the data in the secondary location, in addition to geo-replication across two regions, but is more expensive compared to GRS.

**Reference:**

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

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

**QUESTION 23**

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

Name	Type
RG1	Resource group
store1	Azure Storage account
Sync1	Azure File Sync



Store1 contains a file share named data. Data contains 5,000 files.

You need to synchronize the files in the file share named data to an on-premises server named Server1.

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

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

- A. Create a container instance
- B. Register Server1
- C. Install the Azure File Sync agent on Server1
- D. Download an automation script
- E. Create a sync group

**Correct Answer: BCE****Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Step 1 (C): Install the Azure File Sync agent on Server1

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share

Step 2 (B): Register Server1.

Register Windows Server with Storage Sync Service

Registering your Windows Server with a Storage Sync Service establishes a trust relationship between your server (or cluster) and the Storage Sync Service.

Step 3 (E): Create a sync group and a cloud endpoint.

A sync group defines the sync topology for a set of files. Endpoints within a sync group are kept in sync with each other. A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints. A server endpoint represents a path on registered server.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>

**QUESTION 24**

HOTSPOT

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

Name	Type	Resource group
VNET1	Virtual network	RG1
VNET2	Virtual network	RG2
VM1	Virtual machine	RG2

The status of VM1 is **Running**.

You assign an Azure policy as shown in the exhibit. (Click the **Exhibit** tab.)



Home > Policy - Assignments > Assign Policy

## Assign Policy

### SCOPE

\* Scope ([Learn more about setting the scope](#))

Azure Pass/RG2



### Exclusions

Optionally select resources to exempt from the policy assignment



### BASICS

\* Policy definition

Not allowed resource types



\* Assignment name ?

Not allowed resource types



### Description

### Assigned by

First User



### PARAMETERS

\* Not allowed resource types ?

3 selected



**Assign**

**Cancel**

You assign the policy by using the following parameters:

Microsoft.ClassicNetwork/virtualNetworks  
Microsoft.Network/virtualNetworks  
Microsoft.Compute/virtualMachines

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:**

**Answer Area**

Statements	Yes	No
An administrator can move VNET1 to RG2	<input type="radio"/>	<input type="radio"/>
The state of VM1 changed to deallocated	<input type="radio"/>	<input type="radio"/>
An administrator can modify the address space of VNET2	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

Statements	Yes	No
An administrator can move VNET1 to RG2	<input checked="" type="radio"/>	<input type="radio"/>
The state of VM1 changed to deallocated	<input type="radio"/>	<input checked="" type="radio"/>
An administrator can modify the address space of VNET2	<input type="radio"/>	<input type="radio"/>

**Section: (none)****Explanation****Explanation/Reference:****QUESTION 25**

DRAG DROP

You have an Azure subscription that contains a storage account.

You have an on-premises server named Server1 that runs Windows Server 2016. Server1 has 2 TB of data.

You need to transfer the data to the storage account by using the Azure Import/Export service.

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.

**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:**

Actions	Answer Area
From the Azure portal, update the import job	 
From the Azure portal, create an import job	
Attach an external disk to Server1 and then run waimportexport.exe	
Detach the external disks from Server1 and ship the disks to an Azure data center	

**Correct Answer:**

Actions	Answer Area
	Attach an external disk to Server1 and then run waimportexport.exe
	From the Azure portal, create an import job
	Detach the external disks from Server1 and ship the disks to an Azure data center
	From the Azure portal, update the import job



**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

At a high level, an import job involves the following steps:

Step 1: Attach an external disk to Server1 and then run waimportexport.exe

Determine data to be imported, number of drives you need, destination blob location for your data in Azure storage.  
Use the WAImportExport tool to copy data to disk drives. Encrypt the disk drives with BitLocker.

Step 2: From the Azure portal, create an import job.

Create an import job in your target storage account in Azure portal. Upload the drive journal files.

Step 3: Detach the external disks from Server1 and ship the disks to an Azure data center.

Provide the return address and carrier account number for shipping the drives back to you.  
Ship the disk drives to the shipping address provided during job creation.

Step 4: From the Azure portal, update the import job

Update the delivery tracking number in the import job details and submit the import job.

The drives are received and processed at the Azure data center.

The drives are shipped using your carrier account to the return address provided in the import job.

**Reference:**

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

#### **QUESTION 26**

You plan to use the Azure Import/Export service to copy files to a storage account.

Which two files should you create before you prepare the drives for the import job? Each correct answer presents part of the solution.

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

- A. an XML manifest file
- B. a dataset CSV file
- C. a JSON configuration file
- D. a PowerShell PS1 file
- E. a driveset CSV file

**Correct Answer:** BE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

B: Modify the driveset.csv file in the root folder where the tool resides.

E: Modify the dataset.csv file in the root folder where the tool resides. Depending on whether you want to import a file or folder or both, add entries in the dataset.csv file

References:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-to-files>

## QUESTION 27

You have a Recovery Service vault that you use to test backups. The test backups contain two protected virtual machines.

You need to delete the Recovery Services vault.

What should you do first?

- A. From the Recovery Service vault, delete the backup data.
- B. Modify the disaster recovery properties of each virtual machine.
- C. Modify the locks of each virtual machine.
- D. From the Recovery Service vault, stop the backup of each backup item.



**Correct Answer:** D

**Section:** (none)

**Explanation**

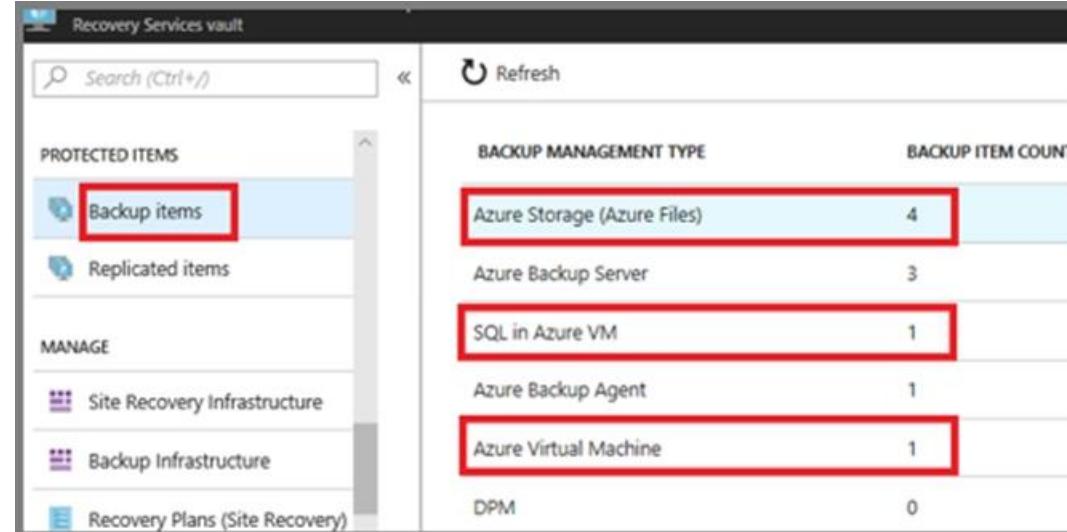
**Explanation/Reference:**

Explanation:

You can't delete a Recovery Services vault if it is registered to a server and holds backup data. If you try to delete a vault, but can't, the vault is still configured to receive backup data.

Remove vault dependencies and delete vault

In the vault dashboard menu, scroll down to the Protected Items section, and click Backup Items. In this menu, you can stop and delete Azure File Servers, SQL Servers in Azure VM, and Azure virtual machines.



BACKUP MANAGEMENT TYPE	BACKUP ITEM COUNT
Azure Storage (Azure Files)	4
Azure Backup Server	3
SQL in Azure VM	1
Azure Backup Agent	1
Azure Virtual Machine	1
DPM	0

Reference:  
<https://docs.microsoft.com/en-us/azure/backup/backup-azure-delete-vault>

**QUESTION 28****HOTSPOT**

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	West US	<i>Not applicable</i>
RG2	Resource group	West US	<i>Not applicable</i>
Vault1	Recovery Services vault	Central US	RG1
Vault2	Recovery Services vault	West US	RG2
VM1	Virtual machine	Central US	RG2
storage1	Storage account	West US	RG1
SQL1	Azure SQL database	East US	RG2

In storage1, you create a blob container named **blob1** and a file share named **share1**.

Which resources can be backed up to Vault1 and Vault2? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

Can use Vault1 for backups:

VM1 only  
 VM1 and share1 only  
 VM1 and SQL1 only  
 VM1, storage1, and SQL1 only  
 VM1, blob1, share1, and SQL1

Can use Vault2 for backups:

storage1 only  
 share1 only  
 VM1 and share1 only  
 blob1 and share1 only  
 storage1 and SQL1 only

**Correct Answer:**

## Answer Area

Can use Vault1 for backups:

VM1 only
VM1 and share1 only
VM1 and SQL1 only
VM1, storage1, and SQL1 only
VM1, blob1, share1, and SQL1

Can use Vault2 for backups:

storage1 only
share1 only
VM1 and share1 only
blob1 and share1 only
storage1 and SQL1 only

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: VM1 only

VM1 is in the same region as Vault1.

File1 is not in the same region as Vault1.

SQL is not in the same region as Vault1.

Blobs cannot be backup up to service vaults.



Note: To create a vault to protect virtual machines, the vault must be in the same region as the virtual machines.

Box 2: Share1 only.

Storage1 is in the same region (West USA) as Vault2. Share1 is in Storage1.

Note: After you select Backup, the Backup pane opens and prompts you to select a storage account from a list of discovered supported storage accounts. They're either associated with this vault or present in the same region as the vault, but not yet associated to any Recovery Services vault.

Reference:

<https://docs.microsoft.com/bs-cyrillic/azure/backup/backup-create-rs-vault>

<https://docs.microsoft.com/en-us/azure/backup/backup-afs>

## QUESTION 29

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. a virtual machine
- B. an Azure Cosmos DB database
- C. Azure File Storage
- D. the Azure File Sync Storage Sync Service

Correct Answer: C  
Section: (none)  
Explanation

**Explanation/Reference:**

Explanation:

Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.

The maximum size of an Azure Files Resource of a file share is 5 TB.

Reference:

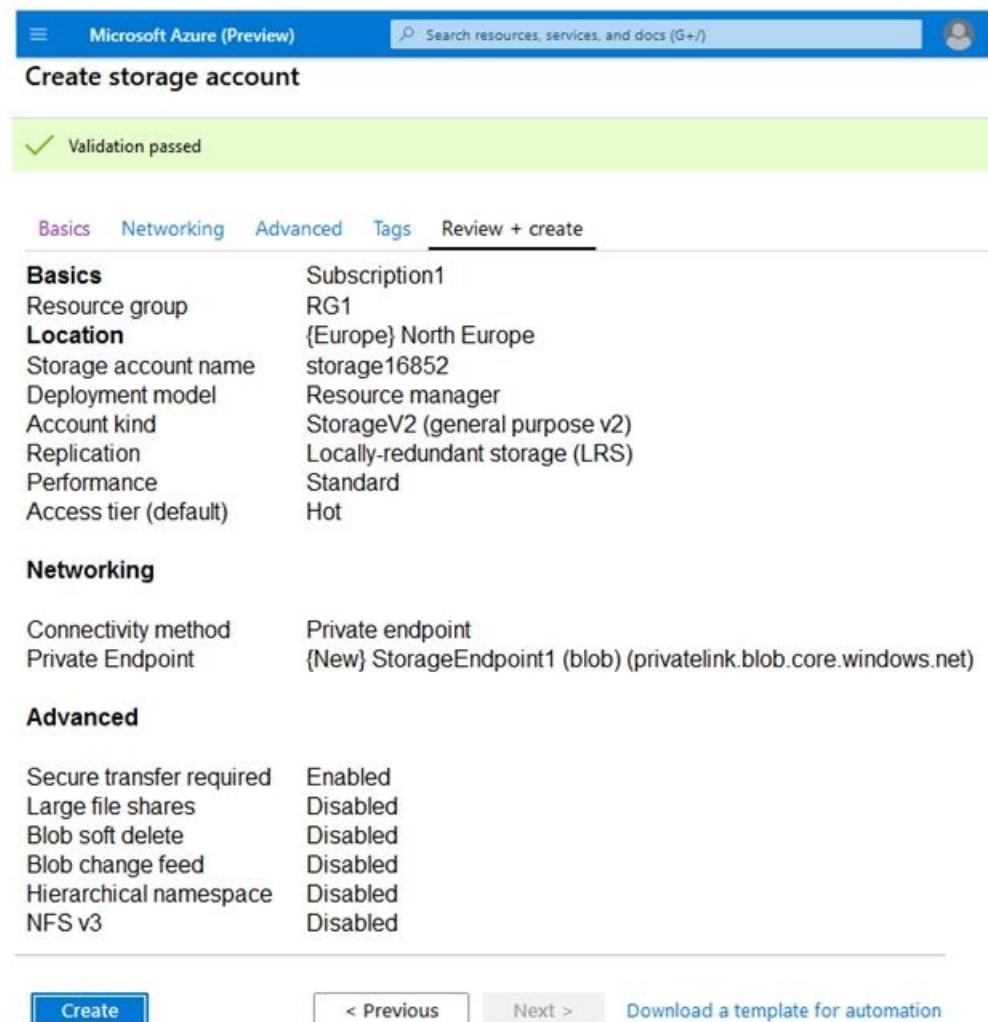
<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

**QUESTION 30**

HOTSPOT

You have an Azure subscription.

You create the Azure Storage account shown in the following exhibit.



Microsoft Azure (Preview) Search resources, services, and docs (G+/)

Create storage account

Validation passed

Basics Networking Advanced Tags Review + create

**Basics**

Subscription	Subscription1
Resource group	RG1
<b>Location</b>	{Europe} North Europe
Storage account name	storage16852
Deployment model	Resource manager
Account kind	StorageV2 (general purpose v2)
Replication	Locally-redundant storage (LRS)
Performance	Standard
Access tier (default)	Hot

**Networking**

Connectivity method	Private endpoint
Private Endpoint	{New} StorageEndpoint1 (blob) (privatelink.blob.core.windows.net)

**Advanced**

Secure transfer required	Enabled
Large file shares	Disabled
Blob soft delete	Disabled
Blob change feed	Disabled
Hierarchical namespace	Disabled
NFS v3	Disabled

Create < Previous Next > Download a template for automation

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

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

**Hot Area:**



## Answer Area

The minimum number of copies of the storage account will be [answer choice]

1
2
3
4

To reduce the cost of infrequently accessed data in the storage account, you must modify the [answer choice] setting

Access tier (default)
Performance
Account kind
Replication

**Correct Answer:**

## Answer Area

The minimum number of copies of the storage account will be [answer choice]

1
2
3
4

To reduce the cost of infrequently accessed data in the storage account, you must modify the [answer choice] setting

Access tier (default)
Performance
Account kind
Replication

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: 3

Locally Redundant Storage (LRS) provides highly durable and available storage within a single location (sub region). We maintain an equivalent of 3 copies (replicas) of your data within the primary location as described in our SOSP paper; this ensures that we can recover from common failures (disk, node, rack) without impacting your storage account's availability and durability.

Box 2: Access tier

Change the access tier from Hot to Cool.

Note: Azure storage offers different access tiers, which allow you to store blob object data in the most cost-effective manner. The available access tiers include:

Hot - Optimized for storing data that is accessed frequently.

Cool - Optimized for storing data that is infrequently accessed and stored for at least 30 days.

Archive - Optimized for storing data that is rarely accessed and stored for at least 180 days with flexible latency requirements (on the order of hours).

Reference:

<https://azure.microsoft.com/en-us/blog/data-series-introducing-locally-redundant-storage-for-windows-azure-storage/>

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-storage-tiers>

## QUESTION 31

You have an Azure subscription named Subscription1.

You have 5 TB of data that you need to transfer to Subscription1.

You plan to use an Azure Import/Export job.

What can you use as the destination of the imported data?

- A. an Azure Cosmos DB database
- B. Azure Blob storage
- C. Azure Data Lake Store
- D. the Azure File Sync Storage Sync Service

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Azure Import/Export service is used to securely import large amounts of data to Azure Blob storage and Azure Files by shipping disk drives to an Azure datacenter.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service>

### QUESTION 32

DRAG DROP

You have an Azure subscription that contains an Azure file share.

You have an on-premises server named Server1 that runs Windows Server 2016.

You plan to set up Azure File Sync between Server1 and the Azure file share.

You need to prepare the subscription for the planned Azure File Sync.

Which two actions should you perform in the Azure subscription? To answer, drag the appropriate actions to the correct targets. Each action 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:**

Actions	Answer Area
<input type="checkbox"/> Create a Storage Sync Service	First action: <input type="text"/> Action
<input type="checkbox"/> Install the Azure File Sync agent	
<input type="checkbox"/> Create a sync group	Second action: <input type="text"/> Action
<input type="checkbox"/> Run Server Registration	

**Correct Answer:**

Actions	Answer Area
<input type="button" value="Create a sync group"/> <input type="button" value="Run Server Registration"/>	First action: <input type="button" value="Create a Storage Sync Service"/> Second action: <input type="button" value="Install the Azure File Sync agent"/>

**Section: (none)**
**Explanation**
**Explanation/Reference:**

Explanation:

First action: Create a Storage Sync Service

The deployment of Azure File Sync starts with placing a Storage Sync Service resource into a resource group of your selected subscription.

Second action: Install the Azure File Sync agent

The Azure File Sync agent is a downloadable package that enables Windows Server to be synced with an Azure file share.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide>


**QUESTION 33**
**HOTSPOT**

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

Name	Location
share1	West US
share2	West US
share3	East US

You have the on-premises file shares shown in the following table.

Name	Server	Path
data1	Server1	D:\Folder1
data2	Server2	E:\Folder2
data3	Server3	E:\Folder2

You create an Azure file sync group named Sync1 and perform the following actions:

- Add share1 as the cloud endpoint for Sync1.
- Add data1 as a server endpoint for Sync1.
- Register Server1 and Server2 to Sync1.

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:

### Answer Area

Statements	Yes	No
You can add share3 as an additional cloud endpoint for Sync1.	<input type="radio"/>	<input type="radio"/>
You can add data2 as an additional server endpoint for Sync1.	<input type="radio"/>	<input type="radio"/>
You can add data3 as an additional server endpoint for Sync1.	<input type="radio"/>	<input checked="" type="radio"/>

Correct Answer:

### Answer Area

Statements	Yes	No
You can add share3 as an additional cloud endpoint for Sync1.	<input type="radio"/>	<input checked="" type="radio"/>
You can add data2 as an additional server endpoint for Sync1.	<input checked="" type="radio"/>	<input type="radio"/>
You can add data3 as an additional server endpoint for Sync1.	<input type="radio"/>	<input checked="" type="radio"/>

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: No

A sync group must contain one cloud endpoint, which represents an Azure file share and one or more server endpoints.

Box 2: Yes

Data2 is located on Server2 which is registered to Sync1.

Box 3: No

Data3 is located on Server3 which is not registered to Sync1.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal%2Cproactive-portal#create-a-sync-group-and-a-cloud-endpoint>

## 02 - Implement and manage storage

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

#### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- File servers
- Domain controllers
- Microsoft SQL Server servers



Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

#### Requirements

#### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

#### Technical Requirements

Contoso must meet the following technical requirements:

- Move all the virtual machines for App1 to Azure.
- Minimize the number of open ports between the App1 tiers.
- Ensure that all the virtual machines for App1 are protected by backups.
- Copy the blueprint files to Azure over the Internet.
- Ensure that the blueprint files are stored in the archive storage tier.
- Ensure that partner access to the blueprint files is secured and temporary.

- Prevent user passwords or hashes of passwords from being stored in Azure.
- Use unmanaged standard storage for the hard disks of the virtual machines.
- Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
- Minimize administrative effort whenever possible.

**User Requirements**

Contoso identifies the following requirements for users:

- Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- Designate a new user named Admin1 as the service admin for the Azure subscription.
- Admin1 must receive email alerts regarding service outages.
- Ensure that a new user named User3 can create network objects for the Azure subscription.

A.

**Correct Answer:****Section: (none)****Explanation****Explanation/Reference:****QUESTION 2**

You need to implement a backup solution for App1 after the application is moved.  
What should you create first?

- A. a recovery plan
- B. an Azure Backup Server
- C. a backup policy
- D. a Recovery Services vault

**Correct Answer: D****Section: (none)****Explanation****Explanation/Reference:**

A Recovery Services vault is a logical container that stores the backup data for each protected resource, such as Azure VMs. When the backup job for a protected resource runs, it creates a recovery point inside the Recovery Services vault.

Scenario:

There are three application tiers, each with five virtual machines.

Move all the virtual machines for App1 to Azure.

Ensure that all the virtual machines for App1 are protected by backups.

Reference: <https://docs.microsoft.com/en-us/azure/backup/quick-backup-vm-portal>

**QUESTION 3**

You need to move the blueprint files to Azure.

What should you do?

- A. Generate an access key. Map a drive, and then copy the files by using File Explorer.
- B. Use Azure Storage Explorer to copy the files.
- C. Use the Azure Import/Export service.
- D. Generate a shared access signature (SAS). Map a drive, and then copy the files by using File Explorer.

**Correct Answer: B****Section: (none)****Explanation****Explanation/Reference:**

Azure Storage Explorer is a free tool from Microsoft that allows you to work with Azure Storage data on Windows, macOS, and Linux. You can use it to upload and download data from Azure blob storage.

## Scenario:

Planned Changes include: move the existing product blueprint files to Azure Blob storage. Technical Requirements include: Copy the blueprint files to Azure over the Internet.  
Reference: <https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-data-to-azure-blob-using-azure-storage-explorer>

**QUESTION 4**

## HOTSPOT

You need to identify the storage requirements for Contoso.

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:****Answer Area**

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input checked="" type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input checked="" type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input checked="" type="radio"/>

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Box 1: Yes

Contoso is moving the existing product blueprint files to Azure Blob storage.

Use unmanaged standard storage for the hard disks of the virtual machines. We use Page Blobs for these.

Box 2: No

Box 3: No

## 01 - Deploy and manage Azure compute resources

### QUESTION 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 have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the Subscriptions blade, you select the subscription, and then click Programmatic deployment.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

#### Explanation/Reference:

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell>

### QUESTION 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 have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the RG1 blade, you click Automation script.

Does this meet the goal?

A. Yes

B. No



**Correct Answer:** B

**Section:** (none)

**Explanation**

#### Explanation/Reference:

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell>

### QUESTION 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 have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the RG1 blade, you click Deployments.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

#### Explanation/Reference:

From the RG1 blade, click Deployments. You see a history of deployment for the resource group.

Reference: <https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-tutorial-create-first-template?tabs=azure-powershell>

**QUESTION 4**

You have an Azure subscription named Subscription1.  
You deploy a Linux virtual machine named VM1 to Subscription1.  
You need to monitor the metrics and the logs of VM1.  
What should you use?

- A. Azure HDInsight
- B. **Linux Diagnostic Extension (LAD) 3.0**
- C. the AzurePerformanceDiagnostics extension
- D. Azure Analysis Services

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

You can use extensions to configure diagnostics on your VMs to collect additional metric data.

The basic host metrics are available, but to see more granular and VM-specific metrics, you need to install the Azure diagnostics extension on the VM. The Azure diagnostics extension allows additional monitoring and diagnostics data to be retrieved from the VM.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-monitoring>

**QUESTION 5**

You plan to deploy three Azure virtual machines named VM1, VM2, and VM3. The virtual machines will host a web app named App1.  
You need to ensure that at least two virtual machines are available if a single Azure datacenter becomes unavailable.  
What should you deploy?

- A. all three virtual machines in a single Availability Zone
- B. all virtual machines in a single Availability Set
- C. each virtual machine in a separate Availability Zone
- D. each virtual machine in a separate Availability Set



**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Availability sets are a datacenter configuration to provide VM redundancy and availability. This configuration within a datacenter ensures that during either a planned or unplanned maintenance event, at least one virtual machine is available.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/manage-availability> <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/tutorial-availability-sets>

**QUESTION 6**

You have an Azure virtual machine named VM1 that runs Windows Server 2019.  
You save VM1 as a template named Template1 to the Azure Resource Manager library.  
You plan to deploy a virtual machine named VM2 from Template1.  
What can you configure during the deployment of VM2?

- A. operating system
- B. administrator username
- C. virtual machine size
- D. resource group

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

When deploying a virtual machine from a template, you must specify:  
the Resource Group name and location for the VM  
the administrator username and password  
an unique DNS name for the public IP

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/ps-template>

**QUESTION 7**

You have an Azure subscription that contains an Azure virtual machine named VM1. VM1 runs a financial reporting app named App1 that does not support multiple active instances. At the end of each month, CPU usage for VM1 peaks when App1 runs. You need to create a scheduled runbook to increase the processor performance of VM1 at the end of each month. What task should you include in the runbook?

- A. Add the Azure Performance Diagnostics agent to VM1.
- B. Modify the VM size property of VM1.**
- C. Add VM1 to a scale set.
- D. Increase the vCPU quota for the subscription.
- E. Add a Desired State Configuration (DSC) extension to VM1.

**Correct Answer:** E

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: <https://docs.microsoft.com/en-us/azure/automation/automation-quickstart-dsc-configuration>

**QUESTION 8**

You have an Azure virtual machine named VM1 that runs Windows Server 2019.

You sign in to VM1 as a user named User1 and perform the following actions:

- Create files on drive C.
- Create files on drive D.
- Modify the screen saver timeout.
- Change the desktop background.

You plan to redeploy VM1.



Which changes will be lost after you redeploy VM1?

- A. the modified screen saver timeout
- B. the new desktop background
- C. the new files on drive D
- D. the new files on drive C

**Correct Answer:** C

**Section:** (none)

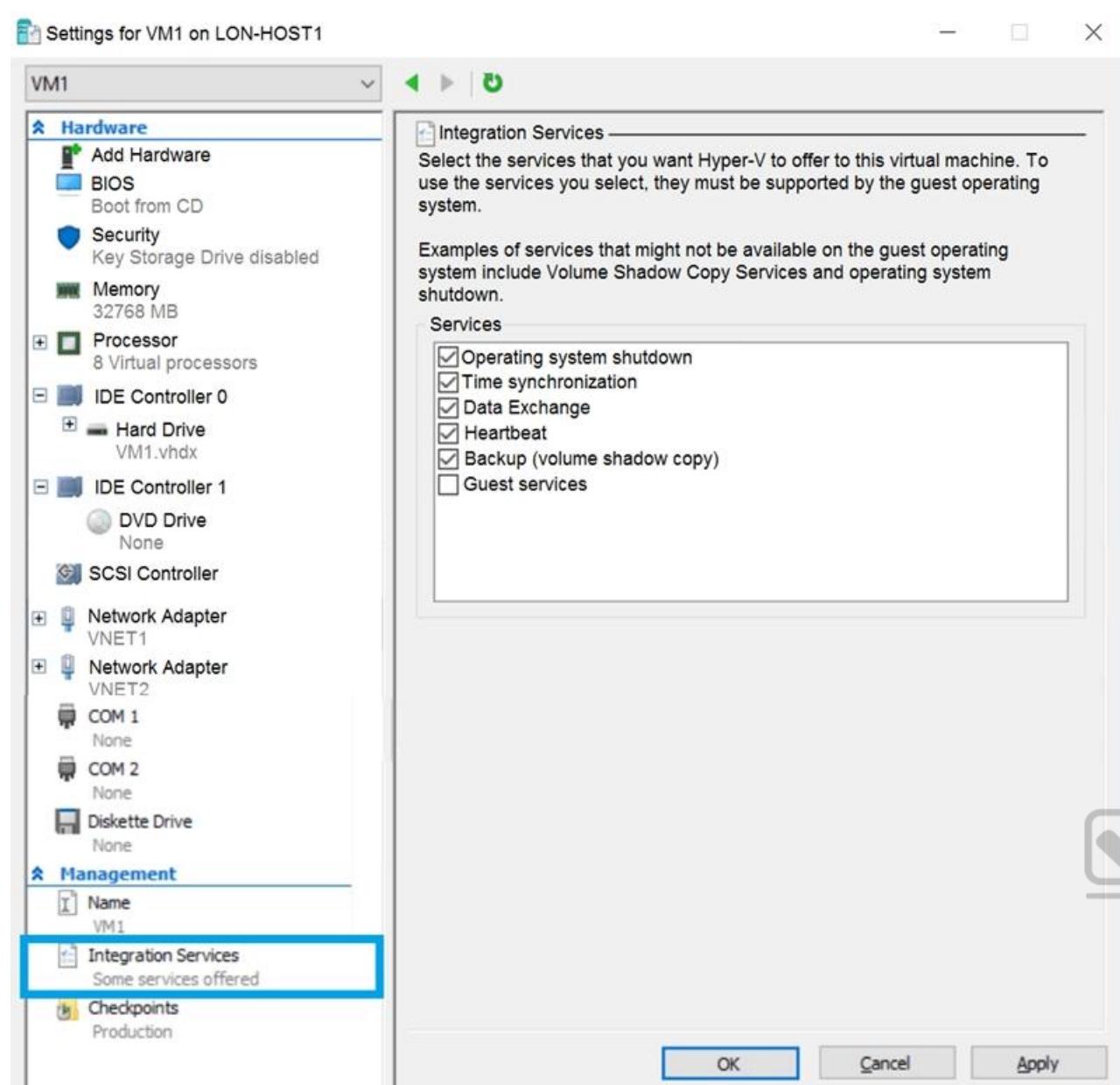
**Explanation**

**Explanation/Reference:**

**QUESTION 9**

You have an Azure subscription.

You have an on-premises virtual machine named VM1. The settings for VM1 are shown in the exhibit. (Click the **Exhibit** tab.)




You need to ensure that you can use the disks attached to VM1 as a template for Azure virtual machines.

What should you modify on VM1?

- A. the memory
- B. the network adapters
- C. the hard drive
- D. the processor
- E. Integration Services

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

From the exhibit we see that the disk is in the VHDX format.

Before you upload a Windows virtual machine (VM) from on-premises to Microsoft Azure, you must prepare the virtual hard disk (VHD or VHDX). Azure supports only generation 1 VMs that are in the VHD file format and have a fixed sized disk. The maximum size allowed for the VHD is 1,023 GB. You can convert a generation 1 VM from the VHDX file system to VHD and from a dynamically expanding disk to fixed-sized.

**Reference:**

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/prepare-for-upload-vhd-image>

**QUESTION 10**

You have an Azure subscription named Subscription1 that is used by several departments at your company. Subscription1 contains the resources in the following table:

Name	Type
storage1	Storage account
RG1	Resource group
container1	Blob container
share1	File share

Another administrator deploys a virtual machine named VM1 and an Azure Storage account named storage2 by using a single Azure Resource Manager template.

You need to view the template used for the deployment.

From which blade can you view the template that was used for the deployment?

- A. VM1
- B. RG1
- C. storage2
- D. container1

**Correct Answer:** B

**Section:** (none)

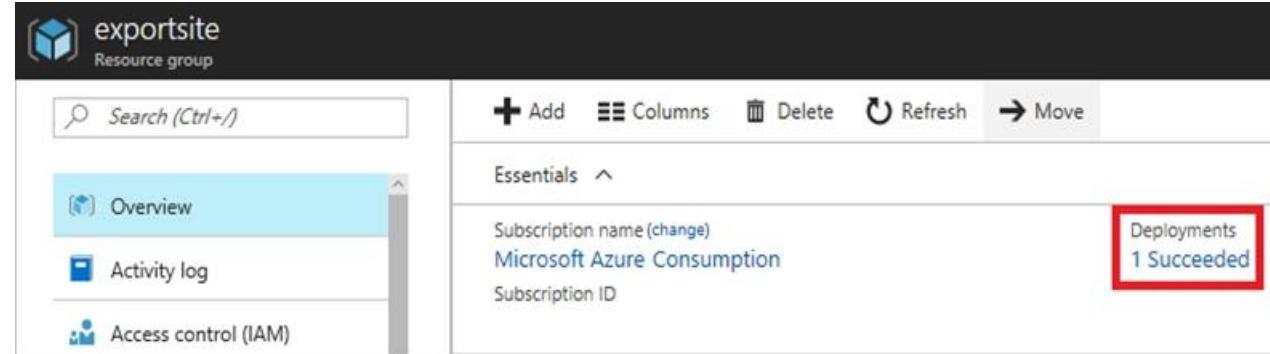
**Explanation**

**Explanation/Reference:**

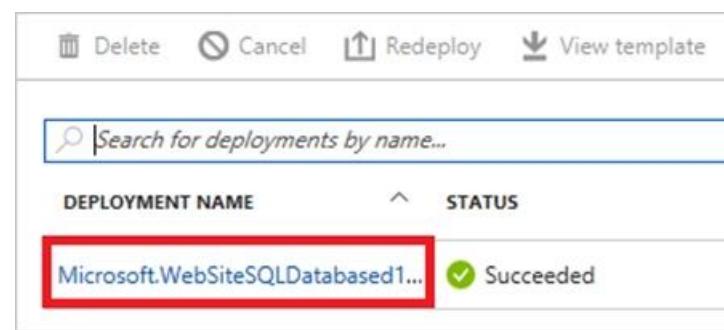
Explanation:

View template from deployment history

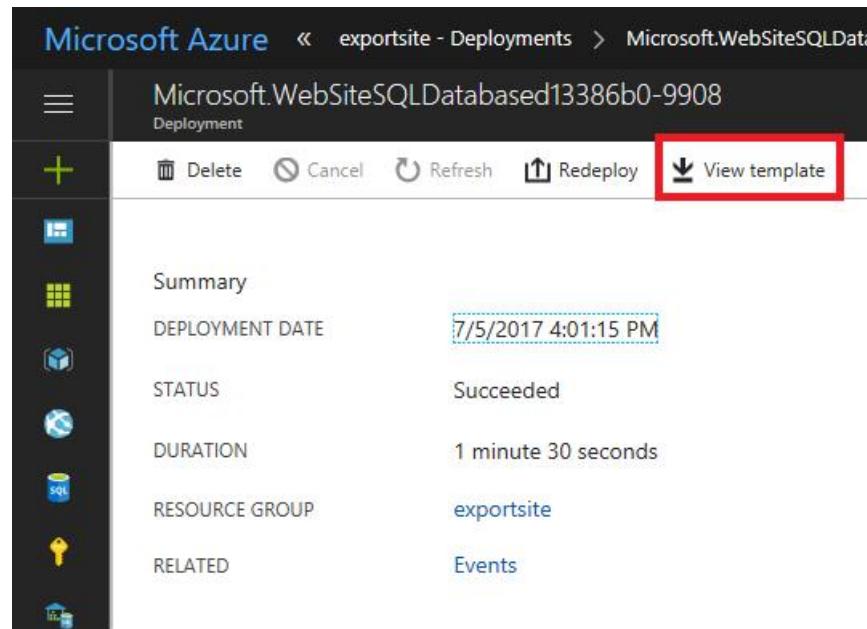
1. Go to the resource group for your new resource group. Notice that the portal shows the result of the last deployment. Select this link.

2. You see a history of deployments for the group. In your case, the portal probably lists only one deployment. Select this deployment.



3. The portal displays a summary of the deployment. The summary includes the status of the deployment and its operations and the values that you provided for parameters. To see the template that you used for the deployment, select View template.



The screenshot shows the Microsoft Azure 'Deployments' blade. At the top, it displays the deployment name 'Microsoft.WebSiteSQLDatabase13386b0-9908'. Below the title, there are several buttons: 'Delete', 'Cancel', 'Refresh', 'Redeploy', and 'View template', with 'View template' being highlighted by a red box. To the left of these buttons is a vertical toolbar with icons for different services: App Service, Functions, Logic Apps, Container Registry, SQL Database, Key Vault, and App Configuration. The main content area shows deployment details: DEPLOYMENT DATE (7/5/2017 4:01:15 PM), STATUS (Succeeded), DURATION (1 minute 30 seconds), RESOURCE GROUP (exportsite), and RELATED (Events).

Reference:  
<https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-export-template>

#### QUESTION 11

You have an Azure web app named App1. App1 has the deployment slots shown in the following table:

Name	Function
webapp1-prod	Production
webapp1-test	Staging



In webapp1-test, you test several changes to App1.

You back up App1.

You swap webapp1-test for webapp1-prod and discover that App1 is experiencing performance issues.

You need to revert to the previous version of App1 as quickly as possible.

What should you do?

- A. Redeploy App1
- B. Swap the slots
- C. Clone App1
- D. Restore the backup of App1

**Correct Answer: B**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

When you swap deployment slots, Azure swaps the Virtual IP addresses of the source and destination slots, thereby swapping the URLs of the slots. We can easily revert the deployment by swapping back.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

#### QUESTION 12

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

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

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure Log Analytics workspace and configure the data settings. You add the Microsoft Monitoring Agent VM extension to VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Instead: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

### QUESTION 13

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

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

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Does this meet the goal?

A. Yes

B. No



**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Alerts in Azure Monitor can identify important information in your Log Analytics repository. They are created by alert rules that automatically run log searches at regular intervals, and if results of the log search match particular criteria, then an alert record is created and it can be configured to perform an automated response.

The Log Analytics agent collects monitoring data from the guest operating system and workloads of virtual machines in Azure, other cloud providers, and on-premises. It collects data into a Log Analytics workspace.

Reference: <https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-response> <https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

### QUESTION 14

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

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

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an Azure storage account and configure shared access signatures (SASs). You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the storage account as the source.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Instead: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

**QUESTION 15**

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

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

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

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You move VM1 to RG2, and then you add a new network interface to VM1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Instead you should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

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

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You delete VM1. You recreate VM1, and then you create a new network interface for VM1 and connect it to VNET2.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

You should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

**QUESTION 17**

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

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

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

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia



VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You turn off VM1, and then you add a new network interface to VM1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Instead you should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machines/windows/network-overview>

**QUESTION 18**

You deploy an Azure Kubernetes Service (AKS) cluster named Cluster1 that uses the IP addresses shown in the following table.

IP address	Assigned to
131.107.2.1	Load balancer front end
192.168.10.2	Kubernetes DNS service
172.17.7.1	Docket bridge address
10.0.10.11	Kubernetes cluster node

You need to provide internet users with access to the applications that run in Cluster1.

Which IP address should you include in the DNS record for Cluster1?

- A. 131.107.2.1
- B. 10.0.10.11
- C. 172.17.7.1
- D. 192.168.10.2

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 19

You have a deployment template named Template1 that is used to deploy 10 Azure web apps.

You need to identify what to deploy before you deploy Template1. The solution must minimize Azure costs.

What should you identify?



- A. five Azure Application Gateways
- B. one App Service plan
- C. 10 App Service plans
- D. one Azure Traffic Manager
- E. one Azure Application Gateway

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

You create Azure web apps in an App Service plan.

Reference: <https://docs.microsoft.com/en-us/azure/app-service/overview-hosting-plans>

#### QUESTION 20

You have an Azure subscription that contains a virtual machine named VM1. VM1 hosts a line-of-business application that is available 24 hours a day. VM1 has one network interface and one managed disk. VM1 uses the D4s v3 size.

You plan to make the following changes to VM1:

- Change the size to D8s v3.
- Add a 500-GB managed disk.
- Add the Puppet Agent extension.
- Enable Desired State Configuration Management.

Which change will cause downtime for VM1?

- A. Enable Desired State Configuration Management
- B. Add a 500-GB managed disk

- C. Change the size to D8s v3
- D. Add the Puppet Agent extension

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

While resizing the VM it must be in a stopped state.

Reference: <https://azure.microsoft.com/en-us/blog/resize-virtual-machines/>

**QUESTION 21**

You have an app named App1 that runs on an Azure web app named webapp1.

The developers at your company upload an update of App1 to a Git repository named Git1.

Webapp1 has the deployment slots shown in the following table.

Name	Function
webapp1-prod	Production
webapp1-test	Staging

You need to ensure that the App1 update is tested before the update is made available to users.

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

- A. Swap the slots
- B. Deploy the App1 update to webapp1-prod, and then test the update
- C. Stop webapp1-prod
- D. Deploy the App1 update to webapp1-test, and then test the update
- E. Stop webapp1-test



**Correct Answer:** AD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 22**

You have an Azure subscription named Subscription1 that has the following providers registered:

- Authorization
- Automation
- Resources
- Compute
- KeyVault
- Network
- Storage
- Billing
- Web

Subscription1 contains an Azure virtual machine named VM1 that has the following configurations:

- Private IP address: 10.0.0.4 (dynamic)
- Network security group (NSG): NSG1
- Public IP address: None
- Availability set: AVSet
- Subnet: 10.0.0.0/24

- Managed disks: No
- Location: East US

You need to record all the successful and failed connection attempts to VM1.

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

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

- A. Enable Azure Network Watcher in the East US Azure region.
- B. Add an Azure Network Watcher connection monitor.
- C. Register the MicrosoftLogAnalytics provider.
- D. Create an Azure Storage account.
- E. Register the Microsoft.Insights resource provider.
- F. Enable Azure Network Watcher flow logs.

**Correct Answer:** ACD

**Section:** (none)

**Explanation**

**Explanation/Reference:**

D: NSG flow log data is written to an Azure Storage account. You need to create an Azure Storage account, With an Azure Storage account NSG flow logs can be enabled.

A: Enable network watcher in the East US region.

C: NSG flow logging requires the Microsoft.Insights provider.

Reference: <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-portal>

### QUESTION 23

You need to deploy an Azure virtual machine scale set that contains five instances as quickly as possible.

What should you do?

- A. Deploy five virtual machines. Modify the Availability Zones settings for each virtual machine.
- B. Deploy five virtual machines. Modify the Size setting for each virtual machine.
- C. Deploy one virtual machine scale set that is set to VM (virtual machines) orchestration mode.
- D. Deploy one virtual machine scale set that is set to ScaleSetVM orchestration mode.



**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference: <https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/orchestration-modes>

### QUESTION 24

You plan to create the Azure web apps shown in the following table.

Name	Runtime stack
WebApp1	.NET Core 3.0
WebApp2	ASP.NET V4.7
WebApp3	PHP 7.3
WebApp4	Ruby 2.6

What is the minimum number of App Service plans you should create for the web apps?

- A. 1
- B. 2
- C. 3

D. 4

**Correct Answer:** A  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

#### QUESTION 25 HOTSPOT

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1.

You install and configure a web server and a DNS server on VM1.

VM1 has the effective network security rules shown in the following exhibit:

Network Interface: vm 1900		Effective security rules		Topology	
Virtual network/subnet:	VMRG-vnet/default	Public IP:	104.40.215.211	Private IP:	10.0.0.5 Accelerated networking: <b>Disabled</b>
<b>INBOUND PORT RULES</b>					
<span style="color: #0070C0;">■</span> Network security group <b>VM1-nsg</b> (attached to network interface: vm1900) <span style="background-color: #0070C0; color: white; padding: 2px 5px;">Add inbound port rule</span> Impacts 0 subnets, 1 network interfaces					
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATIO... ACTION
900	Rule2	50-60	Any	Any	Any <span style="color: red;">Deny ...</span>
1000	default-allow-rdp	3389	TCP	Any	Any <span style="color: green;">Allow ...</span>
1010	Rule1	50-500	TCP	Any	Any <span style="color: green;">Allow ...</span>
65000	AllowVnetIdBound	Any	Any	VirtualNet...	VirtualNet... <span style="color: green;">Allow ...</span>
65001	AllowAzureLoadBalanc...	Any	Any	AzureLoad...	Any <span style="color: green;">Allow ...</span>
65500	DenyAllInBound	Any	Any	Any	Any <span style="color: red;">Deny ...</span>

#### OUTBOUND PORT RULES

Network Interface: vm 1900		Effective security rules		Topology	
Virtual network/subnet:	VMRG-vnet/default	Public IP:	104.40.215.211	Private IP:	10.0.0.5 Accelerated networking: <b>Disabled</b>
<b>OUTBOUND PORT RULES</b>					
<span style="color: #0070C0;">■</span> Network security group <b>VM1-nsg</b> (attached to network interface: vm1900) <span style="background-color: #0070C0; color: white; padding: 2px 5px;">Add outbound port</span> Impacts 0 subnets, 1 network interfaces					
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATIO... ACTION
1000	Rule3	80	Any	Any	Any <span style="color: red;">Deny ...</span>
65000	AllowVnetOutBound	Any	Any	VirtualNet...	VirtualNet... <span style="color: green;">Allow ...</span>
65001	AllowInternetOutBou...	Any	Any	Internet	Internet <span style="color: green;">Allow ...</span>
65500	DenyAllOutBound	Any	Any	Any	Any <span style="color: red;">Deny ...</span>

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

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

**Hot Area:**

## Answer Area



Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

If you delete Rule2, Internet users  
[answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

Correct Answer:

## Answer Area



Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

If you delete Rule2, Internet users  
[answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

Section: (none)

Explanation

Explanation/Reference:

## QUESTION 26

HOTSPOT

You have an Azure subscription that contains a virtual machine scale set. The scale set contains four instances that have the following configurations:

- Operating system: Windows Server 2016
- Size: Standard\_D1\_v2

You run the `get-azvmss` cmdlet as shown in the following exhibit:

```
PS Azure:> (Get-AzVmss -Name WebProd -ResourceGroupName RG1).VirtualMachineProfile.OsProfile.WindowsConfiguration  
  
ProvisionVMAgent : True  
EnableAutomaticUpdates : False  
TimeZone :  
AdditionalUnattendContent :  
WinRM :  
  
Azure:/  
PS Azure:> Get-AzVmss -Name WebProd -ResourceGroupName RG1 | Select -ExpandProperty UpgradePolicy  
  
Mode RollingUpgradePolicy AutomaticOSUpgradePolicy  
-----  
Automatic Microsoft.Azure.Management.Compute.Models.AutomaticOSUpgradePolicy  
  
Azure:/  
PS Azure:> []
```

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

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

**Hot Area:**



When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

0
1
2
4

When a new build of the Windows Server 2016 image is released, the new build will be deployed to up to [answer choice] virtual machines simultaneously.

0
1
2
4

**Correct Answer:**

**Answer Area**  


When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

0
1
2
4

When a new build of the Windows Server 2016 image is released, the new build will be deployed to up to [answer choice] virtual machines simultaneously.

0
1
2
4

Section: (none)   
Explanation

**Explanation/Reference:**  
Explanation:

The Get-AzVmssVM cmdlet gets the model view and instance view of a Virtual Machine Scale Set (VMSS) virtual machine.

Box 1: 0

The enableAutomaticUpdates parameter is set to false. To update existing VMs, you must do a manual upgrade of each existing VM.

Box 2: 4

Enabling automatic OS image upgrades on your scale set helps ease update management by safely and automatically upgrading the OS disk for all instances in the scale set.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-upgrade-scale-set>

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-automatic-upgrade>

**QUESTION 27**  
HOTSPOT

You have an Azure subscription named Subscription1. Subscription1 contains two Azure virtual machines VM1 and VM2. VM1 and VM2 run Windows Server 2016.

VM1 is backed up daily by Azure Backup without using the Azure Backup agent.

VM1 is affected by ransomware that encrypts data.

You need to restore the latest backup of VM1.

To which location can you restore the backup? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

## Answer Area



You can perform a file recovery of VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- A new Azure virtual machine only
- Any Windows computer that has Internet connectivity

You can restore VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- Any Windows computer that has Internet connectivity

Correct Answer:

## Answer Area



You can perform a file recovery of VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- A new Azure virtual machine only
- Any Windows computer that has Internet connectivity

You can restore VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- Any Windows computer that has Internet connectivity

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Note: The new VM must be in the same region.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-arm-restore-vms>

**QUESTION 28**

HOTSPOT

You have an Azure subscription named Subscription1 that contains the quotas shown in the following table.

Quota	Location	Usage
Standard BS Family vCPUs	West US	0 of 20
Standard D Family vCPUs	West US	0 of 20
Total Regional vCPUs	West US	0 of 20

You deploy virtual machine to Subscription1 as shown in the following table.

Name	Size	vCPUs	Location	Status
VM1	Standard_B2ms	2	West US	Running
VM20	Standard_B16ms	16	West US	Stopped (Deallocated)

You plan to deploy the virtual machines shown in the following table.

Name	Size	vCPUs
VM3	Standard_B2ms	1
VM4	Standard_D4s_v3	4
VM5	Standard_B16ms	16

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:



### Statements

Yes      No

You can deploy VM3 to West US.

You can deploy VM4 to West US.

You can deploy VM5 to West US.



Correct Answer:



### Statements

Yes      No

You can deploy VM3 to West US.

You can deploy VM4 to West US.

You can deploy VM5 to West US.



**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

The total regional vCPUs is 20 so that means a maximum total of 20 vCPUs across all the different VM sizes. The deallocated VM with 16 vCPUs counts towards the total. VM20 and VM1 are using 18 of the maximum 20 vCPUs leaving only two vCPUs available.

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

**QUESTION 29**  
**HOTSPOT**

You have an Azure subscription that contains an Azure Availability Set named WEBPROD-AS-USE2 as shown in the following exhibit.

```
PS Azure:\> az vm availability-set list --g RG1
[
  {
    "id": "/subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG1/providers/Microsoft.Compute/availabilitySets/WEBPROD-AS-USE2",
    "location": "eastus2",
    "name": "WEBPROD-AS-USE2",
    "platformFaultDomainCount": 2,
    "platformUpdateDomainCount": 10,
    "proximityPlacementGroup": null,
    "resourceGroup": "RG1",
    "sku": {
      "capacity": null,
      "name": "Aligned",
      "tier": null
    },
    "statuses": null,
    "tags": {},
    "type": "Microsoft.Compute/availabilitySets",
    "virtualMachines": []
  }
]
Azure:/
```



You add 14 virtual machines to WEBPROD-AS-USE2.

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

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

**Hot Area:**

**Answer Area**  


When Microsoft performs planned maintenance in East US 2, the maximum number of unavailable virtual machines will be [answer choice].

▼
2
7
10
14

If the server rack in the Azure datacenter that hosts WEBPROD-AS-USE2 experiences a power failure, the maximum number of unavailable virtual machines will be [answer choice].

▼
2
7
10
14

**Correct Answer:**

**Answer Area**  


When Microsoft performs planned maintenance in East US 2, the maximum number of unavailable virtual machines will be [answer choice].

▼
2
7
10
14

If the server rack in the Azure datacenter that hosts WEBPROD-AS-USE2 experiences a power failure, the maximum number of unavailable virtual machines will be [answer choice].

▼
2
7
10
14

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: 2

There are 10 update domains. The 14 VMs are shared across the 10 update domains so four update domains will have two VMs and six update domains will have one VM. Only one update domain is rebooted at a time. Therefore, a maximum of two VMs will be offline.

Box 2: 7

There are 2 fault domains. The 14 VMs are shared across the 2 fault domains, so 7 VMs in each fault domain. A rack failure will affect one fault domain so 7 VMs will be offline.

Reference:

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

**QUESTION 30**  
**HOTSPOT**

You plan to deploy an Azure container instance by using the following Azure Resource Manager template.

```
{  
    "type": "Microsoft.ContainerInstance/containerGroups",  
    "apiVersion": "2018-10-01",  
    "name": "webprod",  
    "location": "westus",  
    "properties": {  
        "containers": [  
            {  
                "name": "webprod",  
                "properties": {  
                    "image": "microsoft/iis:nanoServer",  
                    "ports": [  
                        {  
                            "protocol": "TCP",  
                            "port": 80  
                        }  
                    ],  
                    "environmentVariables": [],  
                    "resources": {  
                        "requests": {  
                            "memoryInGB": 1.5,  
                            "cpu": 1  
                        }  
                    }  
                }  
            }  
        ],  
        "restartPolicy": "OnFailure",  
        "ipAddress": {  
            "ports": [  
                {  
                    "protocol": "TCP",  
                    "port": 80  
                }  
            ],  
            "ip": "[parameters('IPAddress')]",  
            "type": "Public"  
        },  
        "osType": "Windows"  
    }  
}
```



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

**Hot Area:**

**Answer Area**

 Internet users [answer choice].

If Internet Information Services (IIS) in the container fail, [answer choice].

can connect to the container from any device  
cannot connect to the container  
can only connect to the container from devices that run Windows

the container will restart automatically  
the container will only restart manually  
the container must be redeployed

**Correct Answer:**

Answer Area

VCEplus.com Internet users [answer choice].

If Internet Information Services (IIS) in the container fail, [answer choice].

can connect to the container from any device  
cannot connect to the container  
can only connect to the container from devices that run Windows

the container will restart automatically  
the container will only restart manually  
the container must be redeployed

Section: (none)  
Explanation

Explanation/Reference:

**QUESTION 31**

HOTSPOT

You have a pay-as-you-go Azure subscription that contains the virtual machines shown in the following table.

Name	Resource group	Daily cost
VM1	RG1	20 euros
VM2	RG2	30 euros

You create the budget shown in the following exhibit.



## Budget1

Resource group

 Edit budget  Delete budget



### BUDGET SUMMARY

Name	Budget1
Scope	RG1 (Resource group)
Filters	-
Ammount	1,000.00 EUR
Budget period	Resets billing month
Start date	6/20/2019
End date	6/19/2021

### BUDGET ALERTS

Alert conditions	% OF BUDGET	AMOUNT	ACTION GROUP	ACTION GROUP
	50%	€500	AG1	1 Email
	70%	€700	AG2	1 SMS
	100%	€1,000	AG3	1 Azure app
Alert recipients (email)	User1@Contoso.com			



The AG1 action group contains a user named admin@contoso.com only.

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

**Hot Area:**

**Answer Area**

When the maximum amount in Budget1 is reached, [answer choice].

- VM1 and VM2 are turned off
- VM1 and VM2 continue to run
- VM1 is turned off, and VM2 continues to run

Based on the current usage costs of the virtual machines, [answer choice].

- no email notifications will be sent each month
- one email notification will be sent each month
- two email notifications will be sent each month
- three email notifications will be sent each month

**Correct Answer:**

**Answer Area**

When the maximum amount in Budget1 is reached, [answer choice].

- VM1 and VM2 are turned off
- VM1 and VM2 continue to run
- VM1 is turned off, and VM2 continues to run

Based on the current usage costs of the virtual machines, [answer choice].

- no email notifications will be sent each month
- one email notification will be sent each month
- two email notifications will be sent each month
- three email notifications will be sent each month

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: VM1 is turned off, and VM2 continues to run

The budget alerts are for Resource Group RG1, which include VM1, but not VM2.

Box 2: one email notification will be sent each month.

Budget alerts for Resource Group RG1, which include VM1, but not VM2. VM1 consumes 20 Euro/day. The 50%, 500 Euro limit, will be reached in 25 days, and an email will be sent.

The 70% and 100% alert conditions will not be reached within a month, and they don't trigger email actions anyway.

Credit alerts: Credit alerts are generated automatically at 90% and at 100% of your Azure credit balance. Whenever an alert is generated, it's reflected in cost alerts and in the email sent to the account owners. 90% and 100% will not be reached though.

Reference:

<https://docs.microsoft.com/en-us/azure/cost-management-billing/costs/cost-mgt-alerts-monitor-usage-spending>

**QUESTION 32**

HOTSPOT

You have an Azure subscription named Subscription1. Subscription1 contains the resources in the following table.

Name	Type
RG1	Resource group
RG2	Resource group
VNet1	Virtual network
VNet2	Virtual network

VNet1 is in RG1. VNet2 is in RG2. There is no connectivity between VNet1 and VNet2.

An administrator named Admin1 creates an Azure virtual machine named VM1 in RG1. VM1 uses a disk named Disk1 and connects to VNet1. Admin1 then installs a custom application in VM1.

You need to move the custom application to VNet2. The solution must minimize administrative effort.

Which two actions should you perform? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

**Correct Answer:**

**Answer Area**

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.**
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.**
- Move VM1 to RG2.

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

We cannot just move a virtual machine between networks. What we need to do is identify the disk used by the VM, delete the VM itself while retaining the disk, and recreate the VM in the target virtual network and then attach the original disk to it.

Reference:

<https://blogs.technet.microsoft.com/canitpro/2014/06/16/step-by-step-move-a-vm-to-a-different-vnet-on-azure/>

<https://4sysops.com/archives/move-an-azure-vm-to-another-virtual-network-vnet/#migrate-an-azure-vm-between-vnets>

### QUESTION 33

You download an Azure Resource Manager template based on an existing virtual machine. The template will be used to deploy 100 virtual machines.

You need to modify the template to reference an administrative password. You must prevent the password from being stored in plain text.

What should you create to store the password?

- A. an Azure Key Vault and an access policy
- B. an Azure Storage account and an access policy
- C. a Recovery Services vault and a backup policy
- D. Azure Active Directory (AD) Identity Protection and an Azure policy

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

You can use a template that allows you to deploy a simple Windows VM by retrieving the password that is stored in a Key Vault. Therefore, the password is never put in plain text in the template parameter file.

Reference:

<https://azure.microsoft.com/en-us/resources/templates/101-vm-secure-password/>

### QUESTION 34

HOTSPOT

You have the App Service plans shown in the following table.

Name	Operating system	Location
ASP1	Windows	West US
ASP2	Windows	Central US
ASP3	Linux	West US

You plan to create the Azure web apps shown in the following table.

Name	Runtime stack	Location
WebApp1	.NET Core 3.0	West US
WebApp2	ASP.NET 4.7	West US

You need to identify which App Service plans can be used for the web apps.

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

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

Hot Area:

**Answer Area**

WebApp1:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

WebApp2:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

Correct Answer:

**Answer Area**

WebApp1:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

WebApp2:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

Section: (none)

Explanation

**Explanation/Reference:**

Explanation:

Box 1: ASP1 ASP3

Asp1, ASP3: ASP.NET Core apps can be hosted both on Windows or Linux.

Not ASP2: The region in which your app runs is the region of the App Service plan it's in.

Box 2: ASP1

ASP.NET apps can be hosted on Windows only.

Reference:

<https://docs.microsoft.com/en-us/azure/app-service/quickstart-dotnetcore?pivots=platform-linux>

<https://docs.microsoft.com/en-us/azure/app-service/app-service-plan-manage#>

**QUESTION 35**

## HOTSPOT

You create a virtual machine scale set named Scale1. Scale1 is configured as shown in the following exhibit.

### Create a virtual machine scale set

Basics Disks Networking Scaling Management Health Advanced

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application. [Learn more about VMSS scaling](#)

**Instance**

Initial instance count \*

**Scaling**

Scaling policy  Manual  Custom

Minimum number of VMs \*

Maximum number of VMs \*

**Scale out**

CPU threshold (%) \*

Duration in minutes \*

Number of VMs to increase by \*

**Scale in**

CPU threshold (%) \*

Number of VMs to decrease by \*

**Diagnostic logs**

Collect diagnostic logs from Autoscale  Disabled  Enabled

**Review + create** < Previous Next: Management >



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

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

**Hot Area:**

## Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].

2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running [answer choice].

2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Correct Answer:

## Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].



2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running [answer choice].

2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: 6 virtual machines

The Autoscale scale out rule increases the number of VMs by 2 if the CPU threshold is 80% or higher. The initial instance count is 4 and rises to 6 when the 2 extra instances of VMs are added.

Box 2: 2 virtual machines

The Autoscale scale in rule decreases the number of VMs by 4 if the CPU threshold is 30% or lower. The initial instance count is 4 and thus cannot be reduced to 0 as the minimum instances is set to 2. Instances are only added when the CPU threshold reaches 80%.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-overview>

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-best-practices>

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/autoscale-common-scale-patterns>

**QUESTION 36**

You plan to automate the deployment of a virtual machine scale set that uses the Windows Server 2016 Datacenter image.

You need to ensure that when the scale set virtual machines are provisioned, they have web server components installed.

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

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

- A. Upload a configuration script
- B. Create an automation account
- C. Create an Azure policy
- D. Modify the extensionProfile section of the Azure Resource Manager template
- E. Create a new virtual scale set in the Azure portal

**Correct Answer:** DE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Virtual Machine Scale Sets can be used with the Azure Desired State Configuration (DSC) extension handler. Virtual machine scale sets provide a way to deploy and manage large numbers of virtual machines, and can elastically scale in and out in response to load. DSC is used to configure the VMs as they come online so they are running the production software.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-dsc>

**QUESTION 37**

HOTSPOT

You have an Azure Kubernetes Service (AKS) cluster named AKS1 and a computer named Computer1 that runs Windows 10. Computer1 that has the Azure CLI installed.

You need to install the kubectl client on Computer1.

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

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

**Hot Area:**

**Answer Area**

az
docker
msiexec.exe
Install-Module

aks
/package
-name
pull

Install-cli

**Correct Answer:**

## Answer Area

az	▼
docker	
msiexec.exe	
Install-Module	

aks	▼
/package	
-name	
pull	

Install-cli

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

To install kubectl locally, use the az aks install-cli command:

az aks install-cli

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>**QUESTION 38**

DRAG DROP

You onboard 10 Azure virtual machines to Azure Automation State Configuration.



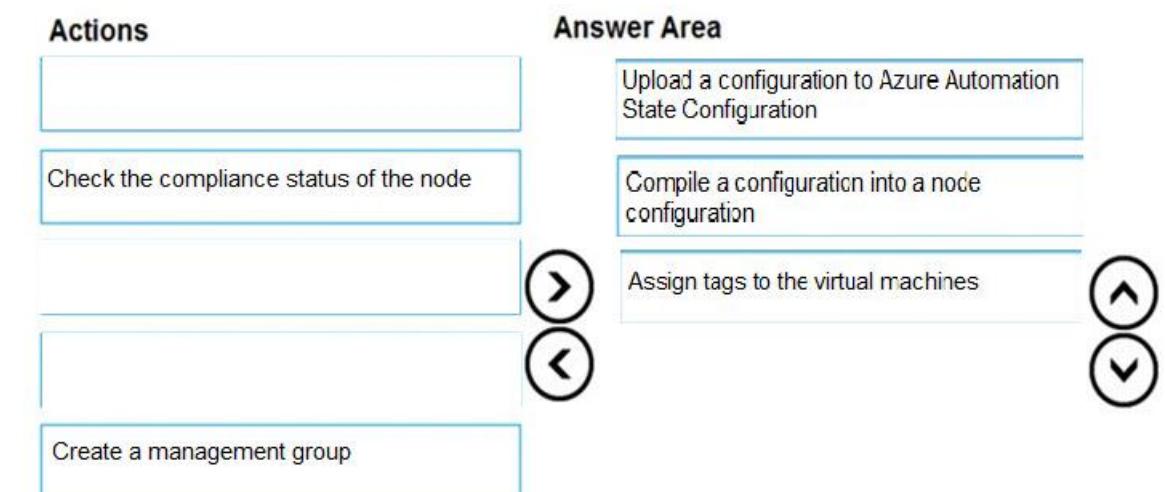
You need to use Azure Automation State Configuration to manage the ongoing consistency of the virtual machine configurations.

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.

**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:**

Actions	Answer Area
Assign tags to the virtual machines	
Check the compliance status of the node	
Compile a configuration into a node configuration	
Upload a configuration to Azure Automation State Configuration	
Create a management group	 

**Correct Answer:**



**Section: (none)**  
**Explanation**

**Explanation/Reference:**

Explanation:

Step 1: Upload a configuration to Azure Automation State Configuration.  
 Import the configuration into the Automation account.

Step 2: Compile a configuration into a node configuration.  
 A DSC configuration defining that state must be compiled into one or more node configurations (MOF document), and placed on the Automation DSC Pull Server.

Step 3: Assign the node configuration



Step 4: Check the compliance status of the node

Each time Azure Automation State Configuration performs a consistency check on a managed node, the node sends a status report back to the pull server. You can view these reports on the page for that node. On the blade for an individual report, you can see the following status information for the corresponding consistency check:

The report status — whether the node is "Compliant", the configuration "Failed", or the node is "Not Compliant"

Reference:

<https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started>

**QUESTION 39**

You have an Azure Resource Manager template named Template1 that is used to deploy an Azure virtual machine.

Template1 contains the following text:

```
"location": {
  "type": "String",
  "defaultValue": "eastus",
  "allowedValues": [
    "canadacentral",
    "eastus",
    "westeurope",
    "westus"
  ]
}
```

The variables section in Template1 contains the following text:

```
"location": "westeurope"
```

The resources section in Template1 contains the following text:

```
"type": "Microsoft.Compute/virtualMachines",
"apiVersion": "2018-10-01",
"name": "[variables('vmName')]",
"location": "westeurope",
```

You need to deploy the virtual machine to the West US location by using Template1.

What should you do?

- A. Modify the location in the resource section to westus
- B. Select West US during the deployment
- C. Modify the location in the variables section to westus

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 40

You create an App Service plan named Plan1 and an Azure web app named webapp1.

You discover that the option to create a staging slot is unavailable.

You need to create a staging slot for Plan1.

What should you do first?

- A. From Plan1, scale up the App Service plan
- B. From webapp1, modify the Application settings
- C. From webapp1, add a custom domain
- D. From Plan1, scale out the App Service plan



**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**Explanation:**

The app must be running in the Standard, Premium, or Isolated tier in order for you to enable multiple deployment slots.

If the app isn't already in the Standard, Premium, or Isolated tier, you receive a message that indicates the supported tiers for enabling staged publishing. At this point, you have the option to select Upgrade and go to the Scale tab of your app before continuing.

**Scale up:** Get more CPU, memory, disk space, and extra features like dedicated virtual machines (VMs), custom domains and certificates, staging slots, autoscaling, and more.

**Incorrect:**

**Scale out:** Increase the number of VM instances that run your app. You can scale out to as many as 30 instances

**Reference:**

<https://docs.microsoft.com/en-us/azure/app-service/deploy-staging-slots>

<https://docs.microsoft.com/en-us/azure/app-service/manage-scale-up>

#### QUESTION 41

You plan to move a distributed on-premises app named App1 to an Azure subscription.

After the planned move, App1 will be hosted on several Azure virtual machines.

You need to ensure that App1 always runs on at least eight virtual machines during planned Azure maintenance.

What should you create?

- A. one virtual machine scale set that has 10 virtual machines instances
- B. one Availability Set that has three fault domains and one update domain
- C. one Availability Set that has 10 update domains and one fault domain
- D. one virtual machine scale set that has 12 virtual machines instances

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

An update domain is a logical group of underlying hardware that can undergo maintenance or be rebooted at the same time. As you create VMs within an availability set, the Azure platform automatically distributes your VMs across these update domains. This approach ensures that at least one instance of your application always remains running as the Azure platform undergoes periodic maintenance.

Reference:

<http://www.thatlazyadmin.com/azure-fault-update-domains/>

#### QUESTION 42

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

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

You have an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to create an alert in Azure when more than two error events are logged to the System event log on VM1 within an hour.

Solution: You create an event subscription on VM1. You create an alert in Azure Monitor and specify VM1 as the source

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Instead: You create an Azure Log Analytics workspace and configure the data settings. You install the Microsoft Monitoring Agent on VM1. You create an alert in Azure Monitor and specify the Log Analytics workspace as the source.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/platform/agents-overview>

#### QUESTION 43

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

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

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Overview blade, you move the virtual machine to a different subscription.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

You would need to redeploy the VM.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

#### QUESTION 44

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

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

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Redeploy blade, you click **Redeploy**.



Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

When you redeploy a VM, it moves the VM to a new node within the Azure infrastructure and then powers it back on, retaining all your configuration options and associated resources.

References:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

#### QUESTION 45

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

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

You have an Azure virtual machine named VM1. VM1 was deployed by using a custom Azure Resource Manager template named ARM1.json.

You receive a notification that VM1 will be affected by maintenance.

You need to move VM1 to a different host immediately.

Solution: From the Update management blade, you click **Enable**.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

You would need to redeploy the VM.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/redeploy-to-new-node>

#### QUESTION 46

You have an Azure subscription that contains a web app named webapp1.

You need to add a custom domain named www.contoso.com to webapp1.

What should you do first?

- A. Create a DNS record
- B. Add a connection string
- C. Upload a certificate.
- D. Stop webapp1.

**Correct Answer:** A

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Explanation:

You can use either a CNAME record or an A record to map a custom DNS name to App Service.

Reference:

<https://docs.microsoft.com/en-us/Azure/app-service/app-service-web-tutorial-custom-domain>

#### QUESTION 47

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

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

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

Name	Type	Region
RG1	Resource group	West US
RG2	Resource group	East Asia
storage1	Storage account	West US
storage2	Storage account	East Asia
VM1	Virtual machine	West US
VNET1	Virtual network	West US
VNET2	Virtual network	East Asia

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

Solution: You create a new network interface, and then you add the network interface to VM1.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

You should delete VM1. You recreate VM1, and then you add the network interface for VM1.

Note: When you create an Azure virtual machine (VM), you must create a virtual network (VNet) or use an existing VNet. You can change the subnet a VM is connected to after it's created, but you cannot change the VNet.

Reference:

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

#### QUESTION 48

You have an Azure Active Directory (Azure AD) tenant named adatum.com that contains the users shown in the following table.

Name	Role
User1	<b>None</b>
User2	Global administrator
User3	Cloud device administrator
User4	Intune administrator



Adatum.com has the following configurations:

- Users may join devices to Azure AD is set to **User1**.
- Additional local administrators on Azure AD joined devices is set to **None**.

You deploy Windows 10 to a computer named Computer1. User1 joins Computer1 to adatum.com.

You need to identify the local Administrator group membership on Computer1.

Which users are members of the local Administrators group?

- User1 only
- User2 only
- User1 and User2 only
- User1, User2, and User3 only
- User1, User2, User3, and User4

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Users may join devices to Azure AD - This setting enables you to select the users who can register their devices as Azure AD joined devices. The default is All.

Additional local administrators on Azure AD joined devices - You can select the users that are granted local administrator rights on a device. Users added here are added to the Device Administrators role in Azure AD. Global administrators, here User2, in Azure AD and device owners are granted local administrator rights by default.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/device-management-azure-portal>

**QUESTION 49****HOTSPOT**

You have Azure subscriptions named Subscription1 and Subscription2.

Subscription1 has following resource groups:

Name	Region	Lock type
RG1	West Europe	None
RG2	West Europe	Read Only

RG1 includes a web app named App1 in the West Europe location.

Subscription2 contains the following resource groups:

Name	Region	Lock type
RG3	East Europe	Delete
RG4	Central US	none

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:****Answer Area**

Statements	Yes	No
App1 can be moved to RG2	<input type="radio"/>	<input type="radio"/>
App1 can be moved to RG3	<input type="radio"/>	<input type="radio"/>
App1 can be moved to RG4	<input type="radio"/>	<input type="radio"/>

**Correct Answer:****Answer Area**

Statements	Yes	No
App1 can be moved to RG2	<input checked="" type="radio"/>	<input type="radio"/>
App1 can be moved to RG3	<input checked="" type="radio"/>	<input type="radio"/>
App1 can be moved to RG4	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)****Explanation****Explanation/Reference:****Reference:**

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-limitations/app-service-move-limitations>

**QUESTION 50**  
HOTSPOT

You have an Azure subscription named Subscription1 that contains the following resource group:

- Name: RG1
- Region: West US
- Tag: "tag1": "value1"

You assign an Azure policy named Policy1 to Subscription1 by using the following configurations:

- Exclusions: None
- Policy definition: Append a tag and its value to resources
- Assignment name: Policy1
- Parameters:
- Tag name: Tag2
- Tag value: Value2

After Policy1 is assigned, you create a storage account that has the following configuration:

- Name: storage1
- Location: West US
- Resource group: RG1
- Tags: "tag3": "value3"

You need to identify which tags are assigned to each resource.

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

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

**Hot Area:**

**Answer Area**

Tags assigned to RG1:

"tag1": "value1" only
"tag2": "value2" only
"tag1": "value1" and "tag2": "value2"

Tags assigned to storage1:

"tag3": "value3" only
"tag1": "value1" and "tag3": "value3" only
"tag2": "value2" and "tag3": "value2" only
"tag1": "value1", "tag2": "value2", and "tag3": "value3"

**Correct Answer:**

## Answer Area

Tags assigned to RG1:

"tag1": "value1" only
"tag2": "value2" only
"tag1": "value1" and "tag2": "value2"

Tags assigned to storage1:

"tag3": "value3" only
"tag1": "value1" and "tag3": "value3" only
"tag2": "value2" and "tag3": "value2" only
"tag1": "value1", "tag2": "value2", and "tag3": "value3"

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: "tag1": "value1" only

Box 2: "tag2": "value2" and "tag3": "value2" only

Tags applied to the resource group are not inherited by the resources in that resource group.

Reference:

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



### QUESTION 51 HOTSPOT

You have an Azure subscription named Subscription1.

In Subscription1, you create an alert rule named Alert1.

The Alert1 action group is configured as shown in the following exhibit.

```
ResourceGroupName : default-activitylogalerts
GroupShortName   : AG1
Enabled          : True
EmailReceivers   : {Action1_ "EmailAction"}
SmsReceivers     : {Action1_ "SMSAction"}
WebhookReceivers : {}
Id              : /subscriptions/a4fde29b-d56a-4f6c-8298-
6c53cd0b720c/resourceGroups/
default-activitylogalerts/providers/microsoft.insights/actionGroups/ActionGroup1
Name            : ActionGroup1
Type            : Microsoft.Insights/ActionGroups
Location        : Global
Tags            : {}
```

Alert1 alert criteria triggered every minute.

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

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

Hot Area:

**Answer Area**

The number of email messages that Alert1 will send in an hour is

0
4
6
12
60

The number of SMS messages that Alert2 will send in an hour is

0
4
6
12
60

Correct Answer:

**Answer Area**

The number of email messages that Alert1 will send in an hour is

0
4
6
12
60

The number of SMS messages that Alert2 will send in an hour is

0
4
6
12
60

Section: (none)

Explanation

**Explanation/Reference:**

Explanation:

Box 1: 60

One alert per minute will trigger one email per minute.

Box 2: 12

No more than 1 SMS every 5 minutes can be sent, which equals 12 per hour.

Note: Rate limiting is a suspension of notifications that occurs when too many are sent to a particular phone number, email address or device. Rate limiting ensures that alerts are manageable and actionable.

The rate limit thresholds are:

- SMS: No more than 1 SMS every 5 minutes.
- Voice: No more than 1 Voice call every 5 minutes.
- Email: No more than 100 emails in an hour.
- Other actions are not rate limited.

Reference:

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

**QUESTION 52**

You have an Azure subscription named Subscription1 that contains the resources shown in the following table.

Name	Type	Region	Resource group
RG1	Resource group	West Europe	Not applicable
RG2	Resource group	North Europe	Not applicable
Vault1	Recovery Services vault	West Europe	RG1

You create virtual machines in Subscription1 as shown in the following table.

Name	Resource group	Region	Operating system
VM1	RG1	West Europe	Windows Server 2016
VM2	RG1	North Europe	Windows Server 2016
VM3	RG2	West Europe	Windows Server 2016
VMA	RG1	West Europe	Ubuntu Server 18.04
VMB	RG1	North Europe	Ubuntu Server 18.04
VMC	RG2	West Europe	Ubuntu Server 18.04

You plan to use Vault1 for the backup of as many virtual machines as possible.

Which virtual machines can be backed up to Vault1?

- A. VM1 only
- B. VM3 and VMC only
- C. VM1, VM2, VM3, VMA, VMB, and VMC
- D. VM1, VM3, VMA, and VMC only
- E. VM1 and VM3 only

**Correct Answer:** D

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Explanation:

To create a vault to protect virtual machines, the vault must be in the same region as the virtual machines. If you have virtual machines in several regions, create a Recovery Services vault in each region.

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/backup/backup-create-rs-vault>

### QUESTION 53

You have an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to configure cluster autoscaler for AKS1.

Which two tools should you use? Each correct answer presents a complete solution.

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

- A. the kubectl command
- B. the az aks command
- C. the Set-AzVm cmdlet
- D. the Azure portal
- E. the Set-AzAks cmdlet

**Correct Answer:** AB

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A: The following example uses the kubectl autoscale command to autoscale the number of pods in the azure-vote-front deployment. If average CPU utilization across all pods exceeds 50% of their requested usage, the autoscaler increases the pods up to a maximum of 10 instances. A minimum of 3 instances is then defined for the deployment:

```
kubectl autoscale deployment azure-vote-front --cpu-percent=50 --min=3 --max=10
```

B: Use the az aks update command to enable and configure the cluster autoscaler on the node pool for the existing cluster.

Reference:

<https://docs.microsoft.com/en-us/azure/aks/tutorial-kubernetes-scale>

<https://docs.microsoft.com/en-us/azure/aks/cluster-autoscaler>

**QUESTION 54**

You create the following resources in an Azure subscription:

- An Azure Container Registry instance named Registry1
- An Azure Kubernetes Service (AKS) cluster named Cluster1

You create a container image named App1 on your administrative workstation.

You need to deploy App1 to Cluster1.

What should you do first?

- A. Run the docker push command.
- B. Create an App Service plan.
- C. Run the az acr build command.
- D. Run the az aks create command.

**Correct Answer:** C

**Section:** (none)

**Explanation**


**Explanation/Reference:**

Explanation:

You should sign in and push a container image to Container Registry.

Run the az acr build command to build and push the container image.

```
az acr build \
--image contoso-website \
--registry $ACR_NAME \
--file Dockerfile .
```

Reference:

<https://docs.microsoft.com/en-us/learn/modules/aks-deploy-container-app/5-exercise-deploy-app>

**QUESTION 55**

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

Name	Type	Resource group	Location
RG1	Resource group	Not applicable	Central US
RG2	Resource group	Not applicable	West US
VMSS1	Virtual machine scale set	RG2	West US
Proximity1	Proximity placement group	RG1	West US
Proximity2	Proximity placement group	RG2	Central US
Proximity3	Proximity placement group	RG1	Central US

You need to configure a proximity placement group for VMSS1.

Which proximity placement groups should you use?

- A. Proximity2 only
- B. Proximity1, Proximity2, and Proximity3
- C. Proximity1 only
- D. Proximity1 and Proximity3 only

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

<https://azure.microsoft.com/en-us/blog/introducing-proximity-placement-groups/>

#### QUESTION 56

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

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

You have an Azure subscription named Subscription1. Subscription1 contains a resource group named RG1. RG1 contains resources that were deployed by using templates.

You need to view the date and time when the resources were created in RG1.

Solution: From the Subscriptions blade, you select the subscription, and then click **Resource providers**.

Does this meet the goal?

- A. Yes
- B. No



**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

#### QUESTION 57

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. Deployment Center in Azure App Service
- B. A Desired State Configuration (DSC) extension
- C. the New-AzConfigurationAssignment cmdlet
- D. a Microsoft Intune device configuration profile

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Azure virtual machine extensions are small packages that run post-deployment configuration and automation on Azure virtual machines.

In the following example, the Azure CLI is used to deploy a custom script extension to an existing virtual machine, which installs a Nginx webserver.

```
az vm extension set \
--resource-group myResourceGroup \
--vm-name myVM --name customScript \
--publisher Microsoft.Azure.Extensions \
--settings '{"commandToExecute": "apt-get install -y nginx"}
```

Reference:  
<https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration>

**QUESTION 58**  
HOTSPOT

You deploy an Azure Kubernetes Service (AKS) cluster that has the network profile shown in the following exhibit.

Network profile	
Type (plugin)	Basic (Kubnet)
Pod CIDR	10.244.0.0/16
Service CIDR	10.0.0.0/16
DNS service IP	10.0.0.10
Docker bridge CIDR	172.17.0.1/16
Network options	
HTTP application routing	
Enabled	Disabled



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

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

Hot Area:

**Answer Area**

Containers will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Correct Answer:

## Answer Area

Containers will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

▼
10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

### Section: (none)

#### Explanation

#### Explanation/Reference:

Explanation:

Box 1: 10.244.0.0/16

The Pod CIDR.

Note: The --pod-cidr should be a large address space that isn't in use elsewhere in your network environment. This range includes any on-premises network ranges if you connect, or plan to connect, your Azure virtual networks using Express Route or a Site-to-Site VPN connection.

This address range must be large enough to accommodate the number of nodes that you expect to scale up to. You can't change this address range once the cluster is deployed if you need more addresses for additional nodes.

Box 2: 10.0.0.0/16

The --service-cidr is used to assign internal services in the AKS cluster an IP address.



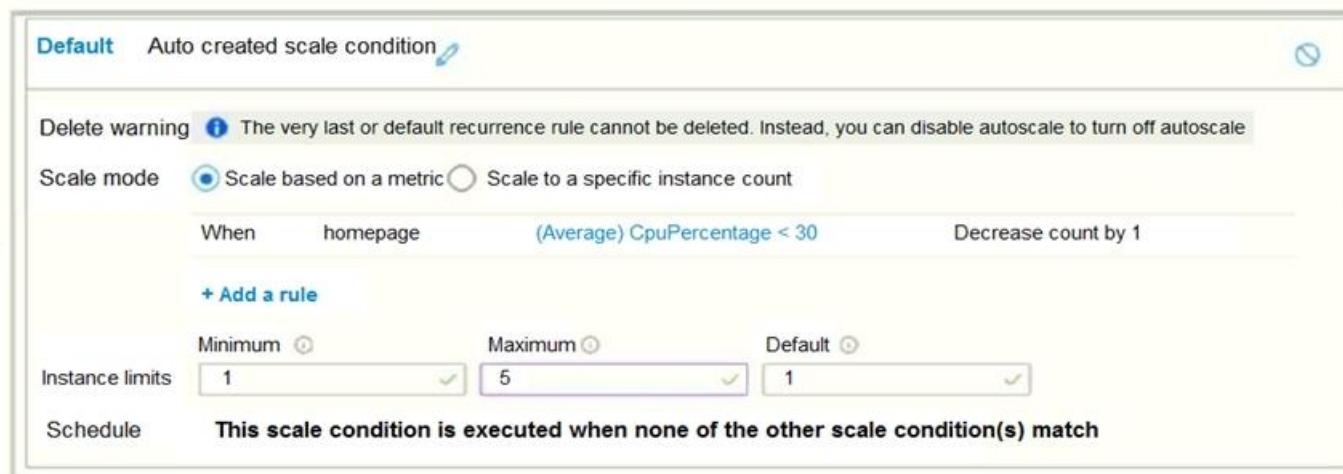
#### Reference:

<https://docs.microsoft.com/en-us/azure/aks/configure-kubenet>

### QUESTION 59

#### HOTSPOT

You have the App Service plan shown in the following exhibit.



The scale-in settings for the App Service plan are configured as shown in the following exhibit.

Action

Operation \*

Decrease count by

Instance count \*

Cool down (minutes)\* ⓘ

1	5
---	---

The scale out rule is configured with the same duration and cool down tile as the scale in rule.

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

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

**Hot Area:**

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

**Correct Answer:**

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: 5

The maximum 5 will kept as the CPU Usage  $\geq 30$ .



Box 2: 3

In 9 minutes the count will be decreased twice from 5 reaching 3.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-autoscale-performance-schedule>

## 02 - Deploy and manage Azure compute resources

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the P1 pricing tier.

#### Existing Environment

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the **department** attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

#### Requirements

## Planned Changes

Litware plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

## Technical Requirements

Litware must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

A.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**



## QUESTION 2

You discover that VM3 does **NOT** meet the technical requirements.

You need to verify whether the issue relates to the NSGs.

What should you use?

- A. Diagram in VNet1
- B. Diagnostic settings in Azure Monitor
- C. Diagnose and solve problems in Traffic Manager profiles
- D. The security recommendations in Azure Advisor
- E. IP flow verify in Azure Network Watcher

**Correct Answer: E**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Scenario: Contoso must meet technical requirements including:

Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

## 01 - Configure and manage virtual networking

### QUESTION 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 have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription.

You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: From the Resource providers blade, you unregister the Microsoft.ClassicNetwork provider.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

#### Explanation/Reference:

You should use a policy definition.

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference: <https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

### QUESTION 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 have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription.

You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You assign a built-in policy definition to the subscription.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

#### Explanation/Reference:

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference: <https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

### QUESTION 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 have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription.

You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You configure a custom policy definition, and then you assign the policy to the subscription.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** A

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Resource policy definition used by Azure Policy enables you to establish conventions for resources in your organization by describing when the policy is enforced and what effect to take. By defining conventions, you can control costs and more easily manage your resources.

Reference: <https://docs.microsoft.com/en-us/azure/azure-policy/policy-definition>

**QUESTION 4**

You have two Azure virtual networks named VNet1 and VNet2. VNet1 contains an Azure virtual machine named VM1. VNet2 contains an Azure virtual machine named VM2.

VM1 hosts a frontend application that connects to VM2 to retrieve data.

Users report that the frontend application is slower than usual.

You need to view the average round-trip time (RTT) of the packets from VM1 to VM2.

Which Azure Network Watcher feature should you use?

- A. IP flow verify
- B. Connection troubleshoot
- C. Connection monitor
- D. NSG flow logs

**Correct Answer: C**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

The connection monitor capability monitors communication at a regular interval and informs you of reachability, latency, and network topology changes between the VM and the endpoint Incorrect Answers:

A: The IP flow verify capability enables you to specify a source and destination IPv4 address, port, protocol (TCP or UDP), and traffic direction (inbound or outbound). IP flow verify then tests the communication and informs you if the connection succeeds or fails. If the connection fails, IP flow verify tells you which security rule allowed or denied the communication, so that you can resolve the problem.

B: The connection troubleshoot capability enables you to test a connection between a VM and another VM, an FQDN, a URI, or an IPv4 address. The test returns similar information returned when using the connection monitor capability, but tests the connection at a point in time, rather than monitoring it over time, as connection monitor does.

D: The NSG flow log capability allows you to log the source and destination IP address, port, protocol, and whether traffic was allowed or denied by an NSG.

Reference: <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview>

**QUESTION 5**

You have an Azure subscription that contains a policy-based virtual network gateway named GW1 and a virtual network named VNet1.

You need to ensure that you can configure a point-to-site connection from an on-premises computer to VNet1.

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

NOTE: Each correct selection is worth one point.

- A. Add a service endpoint to VNet1
- B. Reset GW1
- C. Create a route-based virtual network gateway
- D. Add a connection to GW1
- E. Delete GW1
- F. Add a public IP address space to VNet1

**Correct Answer: CE**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

C: A VPN gateway is used when creating a VPN connection to your on-premises network.

Route-based VPN devices use any-to-any (wildcard) traffic selectors, and let routing/forwarding tables direct traffic to different IPsec tunnels. It is typically built on router platforms where each IPsec tunnel is modeled as a network interface or VTI (virtual tunnel interface).

E: Policy-based VPN devices use the combinations of prefixes from both networks to define how traffic is encrypted/decrypted through IPsec tunnels. It is typically built on firewall devices that perform packet filtering. IPsec tunnel encryption and decryption are added to the packet filtering and processing engine.

Incorrect Answers:

F: Point-to-Site connections do not require a VPN device or a public-facing IP address.

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/create-routebased-vpn-gateway-portal> <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-connect-multiple-policybased-rm-ps>

**QUESTION 6**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.  
 You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.  
 You need to ensure that visitors are serviced by the same web server for each request.  
 What should you configure?

- A. Floating IP (direct server return) to **Enabled**
- B. Floating IP (direct server return) to **Disabled**
- C. a health probe
- D. Session persistence to **Client IP and Protocol**

**Correct Answer:** D

**Section:** (none)

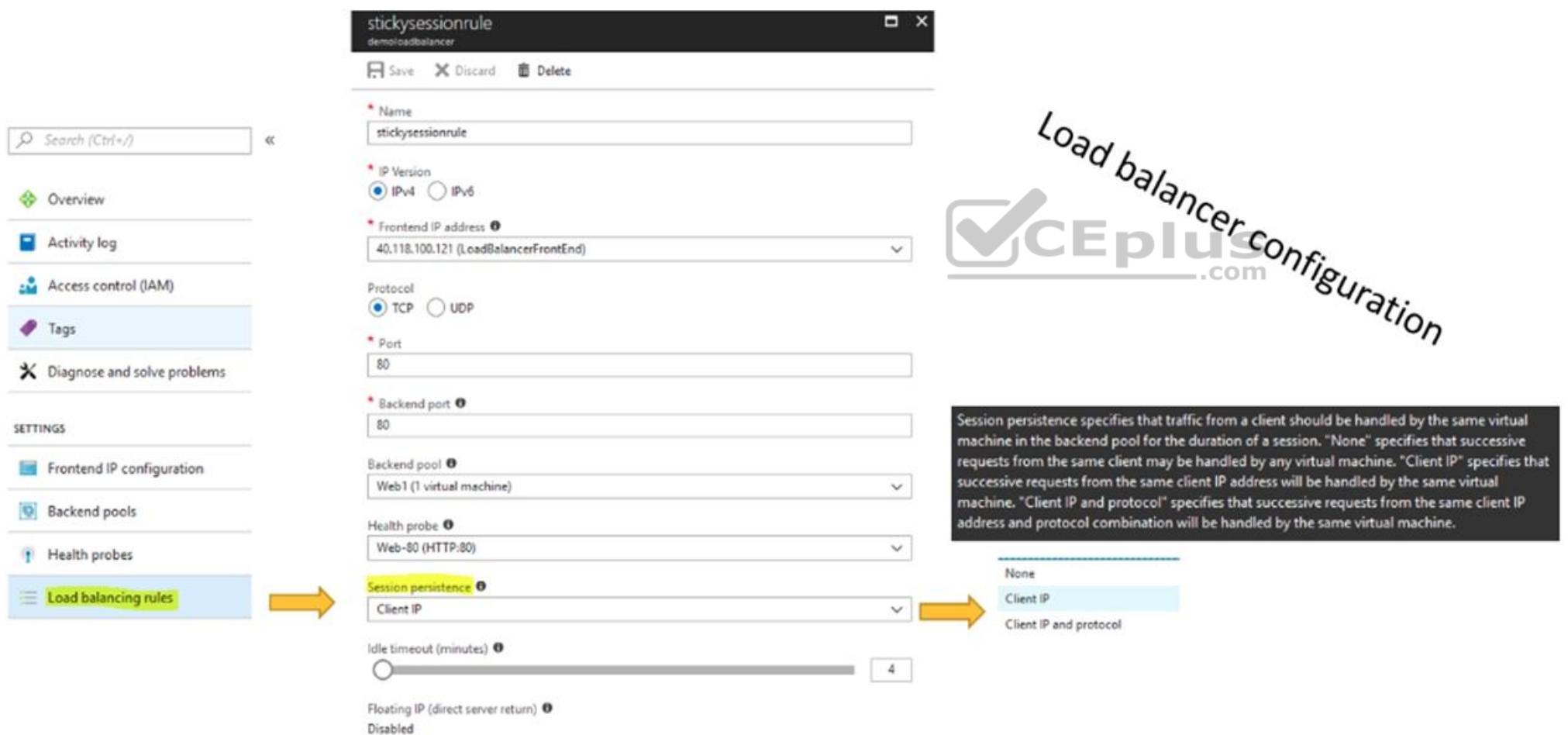
**Explanation**

**Explanation/Reference:**

Explanation:

With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP.

On the following image you can see sticky session configuration:



The screenshot shows the Azure portal interface for configuring a load balancing rule. The left sidebar shows navigation options like Overview, Activity log, Access control (IAM), Tags, and Diagnose and solve problems. The main area is titled 'stickyessionrule' under 'demoloadbalancer'. It includes fields for Name (stickyessionrule), IP Version (IPv4 selected), Frontend IP address (40.118.100.121 (LoadBalancerFrontEnd)), Protocol (TCP selected), Port (80), Backend port (80), Backend pool (Web1 (1 virtual machine)), Health probe (Web-80 (HTTP:80)), Session persistence (Client IP selected), and Idle timeout (minutes) (set to 4). A note about session persistence is displayed in a callout box: 'Session persistence specifies that traffic from a client should be handled by the same virtual machine in the backend pool for the duration of a session. "None" specifies that successive requests from the same client may be handled by any virtual machine. "Client IP" specifies that successive requests from the same client IP address will be handled by the same virtual machine. "Client IP and protocol" specifies that successive requests from the same client IP address and protocol combination will be handled by the same virtual machine.' A yellow arrow points from the 'Load balancing rules' link in the sidebar to the 'Load balancing rules' section in the main content area.

**Note:**

There are several versions of this question in the exam. The question can have other incorrect answer options, including the following:

1. Idle Time-out (minutes) to **20**
2. Protocol to **UDP**

**Reference:**

<https://cloudopszone.com/configure-azure-load-balancer-for-sticky-sessions/>

**QUESTION 7**

Your on-premises network contains an SMB share named Share1.

You have an Azure subscription that contains the following resources:

- A web app named webapp1
- A virtual network named VNET1

You need to ensure that webapp1 can connect to Share1.

What should you deploy?

- A. an Azure Application Gateway
- B. an Azure Active Directory (Azure AD) Application Proxy
- C. an Azure Virtual Network Gateway

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

A Site-to-Site VPN gateway connection can be used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel. This type of connection requires a VPN device, a VPN gateway, located on-premises that has an externally facing public IP address assigned to it.

Incorrect Answers:

B: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client.

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal>

**QUESTION 8**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. Azure Application Insights
- C. Azure Custom Script Extension
- D. the New-AzConfigurationAssignment cmdlet

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

**QUESTION 9**

Your company has three offices. The offices are located in Miami, Los Angeles, and New York. Each office contains datacenter.

You have an Azure subscription that contains resources in the East US and West US Azure regions. Each region contains a virtual network. The virtual networks are peered.

You need to connect the datacenters to the subscription. The solution must minimize network latency between the datacenters.

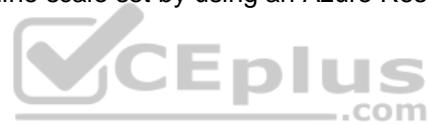
What should you create?

- A. three Azure Application Gateways and one On-premises data gateway
- B. three virtual hubs and one virtual WAN
- C. three virtual WANs and one virtual hub
- D. three On-premises data gateways and one Azure Application Gateway

**Correct Answer:** C

**Section:** (none)

**Explanation**



**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-about>**QUESTION 10**

You have the Azure virtual networks shown in the following table.

Name	Address space	Subnet	Resource group Azure region
VNet1	10.11.0.0/16	10.11.0.0/17	West US
VNet2	10.11.0.0/17	10.11.0.0/25	West US
VNet3	10.10.0.0/22	10.10.1.0/24	East US
VNet4	192.168.16.0/22	192.168.16.0/24	North Europe

To which virtual networks can you establish a peering connection from VNet1?

- A. VNet2 and VNet3 only
- B. VNet2 only
- C. VNet3 and VNet4 only
- D. VNet2, VNet3, and VNet4

**Correct Answer:** C**Section:** (none)**Explanation****Explanation/Reference:**

Explanation:

Incorrect Answers:

A, B, C: The address space for VNet2 overlaps with VNet1. We therefore cannot establish a peering between VNet2 and VNet1.



Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/tutorial-connect-virtual-networks-portal>**QUESTION 11**

You have an Azure subscription that contains a virtual network named VNet1. VNet1 contains four subnets named Gateway, Perimeter, NVA, and Production.

The NVA subnet contains two network virtual appliances (NVAs) that will perform network traffic inspection between the Perimeter subnet and the Production subnet.

You need to implement an Azure load balancer for the NVAs. The solution must meet the following requirements:

- The NVAs must run in an active-active configuration that uses automatic failover.
- The NVA must load balance traffic to two services on the Production subnet. The services have different IP addresses.

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

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

- A. Deploy a basic load balancer
- B. Deploy a standard load balancer
- C. Add two load balancing rules that have HA Ports and Floating IP enabled
- D. Add two load balancing rules that have HA Ports enabled and Floating IP disabled
- E. Add a frontend IP configuration, a backend pool, and a health probe
- F. Add a frontend IP configuration, two backend pools, and a health probe

**Correct Answer:** BCF**Section:** (none)**Explanation**

**Explanation/Reference:**

A standard load balancer is required for the HA ports.

Two backend pools are needed as there are two services with different IP addresses. Floating IP rule is used where backend ports are reused.

Incorrect Answers:

E: HA Ports are not available for the basic load balancer.

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-overview> <https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-multivip-overview>

**QUESTION 12**

You have an Azure subscription named Subscription1 that contains two Azure virtual networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1.

On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1.

You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2.

You need to ensure that you can connect Client1 to VNet2.

What should you do?

- A. Download and re-install the VPN client configuration package on Client1.
- B. Select Allow gateway transit on VNet1.
- C. Select Allow gateway transit on VNet2.
- D. Enable BGP on VPNGW1

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-about-point-to-site-routing>

**QUESTION 13**

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



Name	Type	Azure region	Resource group
VNet1	Virtual network	West US	RG2
VNet2	Virtual network	West US	RG1
VNet3	Virtual network	East US	RG1
NSG1	Network security group (NSG)	East US	RG2

To which subnets can you apply NSG1?

- A. the subnets on VNet1 only
- B. the subnets on VNet2 and VNet3 only
- C. the subnets on VNet2 only
- D. the subnets on VNet3 only
- E. the subnets on VNet1, VNet2, and VNet3

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

All Azure resources are created in an Azure region and subscription. A resource can only be created in a virtual network that exists in the same region and subscription as the resource.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-vnet-plan-design-arm>

**QUESTION 14**

HOTSPOT

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

Name	Type
VMRG	Resource group
VNet1	Virtual network
VNet2	Virtual network
VM5	Virtual machine connected to VNet1
VM6	Virtual machine connected to VNet2

In Azure, you create a private DNS zone named adatum.com. You set the registration virtual network to VNet2. The adatum.com zone is configured as shown in the following exhibit:

Resource group ([change](#))  
vmrg

Subscription ([change](#))  
Azure Pass

Subscription ID  
a4fde29b-d56a-4f6c-8298-6c53cd0b720c

Tags ([change](#))  
[Click here to add tags](#)

Name server 1  
-

Name server 2  
-

Name server 3  
-

Name server 4  
-

---

 Search record sets


Name	Type	TTL	VALUE
@	SOA	3600	Email: azuredns-hostmaster.microsoft.com Host: internal.cloudapp.net Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1
vm1	A	3600	10.1.0.4
vm9	A	3600	10.1.0.12

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:**

**Answer Area**  

**Statements**
**Yes**
**No**

The A record for VM5 will be registered automatically in the adatum.com zone.



VM5 can resolve VM9.adatum.com.



VM6 can resolve VM9.adatum.com.


**Correct Answer:**
**Answer Area**  

**Statements**
**Yes**
**No**

The A record for VM5 will be registered automatically in the adatum.com zone.



VM5 can resolve VM9.adatum.com.



VM6 can resolve VM9.adatum.com.


**Section: (none)**
**Explanation**
**Explanation/Reference:**
**Explanation:**
**Box 1: No**

Azure DNS provides automatic registration of virtual machines from a single virtual network that's linked to a private zone as a registration virtual network. VM5 does not belong to the registration virtual network though.

**Box 2: No**

Forward DNS resolution is supported across virtual networks that are linked to the private zone as resolution virtual networks. VM5 does belong to a resolution virtual network.

**Box 3: Yes**

VM6 belongs to registration virtual network, and an A (Host) record exists for VM9 in the DNS zone.

By default, registration virtual networks also act as resolution virtual networks, in the sense that DNS resolution against the zone works from any of the virtual machines within the registration virtual network.

**Reference:**
<https://docs.microsoft.com/en-us/azure/dns/private-dns-overview>
**QUESTION 15**
**HOTSPOT**

You have an Azure subscription that contains a virtual network named VNet1. VNet1 uses an IP address space of 10.0.0.0/16 and contains the subnets in the following table:

Name	IP address range
Subnet0	10.0.0.0/24
Subnet1	10.0.1.0/24
Subnet2	10.0.2.0/24
GatewaySubnet	10.0.254.0/24

Subnet1 contains a virtual appliance named VM1 that operates as a router.

You create a routing table named RT1.

You need to route all inbound traffic from the VPN gateway to VNet1 through VM1.

How should you configure RT1? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

Address prefix

10.0.0.0/16  
 10.0.1.0/24  
 10.0.254.0/24

Next hop type

Virtual appliance  
 Virtual network  
 Virtual network gateway

Assigned to

GatewaySubnet  
 Subnet0  
 Subnet1 and Subnet2

**Correct Answer:**

**Answer Area**

Address prefix	<div style="border: 1px solid #ccc; padding: 2px; width: 150px; height: 100px; overflow-y: scroll;"> 10.0.0.0/16  10.0.1.0/24  10.0.254.0/24 </div>
Next hop type	<div style="border: 1px solid #ccc; padding: 2px; width: 150px; height: 100px; overflow-y: scroll;"> Virtual appliance  Virtual network  Virtual network gateway </div>
Assigned to	<div style="border: 1px solid #ccc; padding: 2px; width: 150px; height: 100px; overflow-y: scroll;"> GatewaySubnet  Subnet0  Subnet1 and Subnet2 </div>

**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**QUESTION 16**  
HOTSPOT

You have an Azure subscription that contains the virtual machines shown in the following table:



Name	Operating system	Connects to
VM1	Windows Server 2019	Subnet1
VM2	Windows Server 2019	Subnet2

VM1 and VM2 use public IP addresses. From Windows Server 2019 on VM1 and VM2, you allow inbound Remote Desktop connections.

Subnet1 and Subnet2 are in a virtual network named VNET1.

The subscription contains two network security groups (NSGs) named NSG1 and NSG2. NSG1 uses only the default rules.

NSG2 uses the default rules and the following custom incoming rule:

- Priority: 100
- Name: Rule1
- Port: 3389
- Protocol: TCP
- Source: Any
- Destination: Any
- Action: Allow

NSG1 is associated to Subnet1. NSG2 is associated to the network interface of VM2.

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:

**Answer Area**

**Statements**

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

From the Internet, you can connect to VM1 by using Remote Desktop.

From the Internet, you can connect to VM2 by using Remote Desktop.

From VM1, you can connect to VM2 by using Remote Desktop

Correct Answer:

**Answer Area**

**Statements**

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

From the Internet, you can connect to VM1 by using Remote Desktop.

From the Internet, you can connect to VM2 by using Remote Desktop.

From VM1, you can connect to VM2 by using Remote Desktop

Section: (none)  
Explanation

Explanation/Reference:

#### QUESTION 17 HOTSPOT

You have a virtual network named VNET1 that contains the subnets shown in the following table:

Name	Subnet	Network security group (NSG)
Subnet1	10.10.1.0/24	NSG1
Subnet2	10.10.2.0/24	None

You have two Azure virtual machines that have the network configurations shown in the following table:

Name	Subnet	IP address	NSG
VM1	Subnet1	10.10.1.5	NSG2
VM2	Subnet2	10.10.2.5	None
VM3	Subnet2	10.10.2.6	None

For NSG1, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
101	10.10.2.0/24	10.10.1.0/24	TCP/1433	Allow

For NSG2, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
125	10.10.2.5	10.10.1.5	TCP/1433	Block

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:**

Answer Area		
Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input type="radio"/>	<input type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input type="radio"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

Answer Area		
Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input checked="" type="checkbox"/>	<input type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input checked="" type="checkbox"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input checked="" type="checkbox"/>	<input type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Yes

The inbound security rule for NSG1 allows TCP port 1433 from 10.10.2.0/24 (or Subnet2 where VM2 and VM3 are located) to 10.10.1.0/24 (or Subnet1 where VM1 is located) while the inbound security rule for NSG2 blocks TCP port 1433 from 10.10.2.5 (or VM2) to 10.10.1.5 (or VM1). However, the NSG1 rule has a higher priority (or lower value) than the NSG2 rule.

Box 2: Yes

No rule explicitly blocks communication from VM1. The default rules, which allow communication, are thus applied.

Box 3: Yes

No rule explicitly blocks communication between VM2 and VM3 which are both on Subnet2. The default rules, which allow communication, are thus applied.

Reference:  
<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

**QUESTION 18**  
**HOTSPOT**

You have an Azure subscription named Subscription1.

Subscription1 contains the virtual machines in the following table:

Name	IP address
VM1	10.0.1.4
VM2	10.0.2.4
VM3	10.0.3.4

Subscription1 contains a virtual network named VNet1 that has the subnets in the following table:

Name	Address space	Connected virtual machine
Subnet1	10.0.1.0/24	VM1
Subnet2	10.0.2.0/24	VM2
Subnet3	10.0.3.0/24	VM3

VM3 has multiple network adapters, including a network adapter named NIC3. IP forwarding is enabled on NIC3. Routing is enabled on VM3.

You create a route table named RT1 that contains the routes in the following table:

Address prefix	Next hop type	Next hop address
10.0.1.0/24	Virtual appliance	10.0.3.4
10.0.2.0/24	Virtual appliance	10.0.3.4

You apply RT1 to Subnet1 and Subnet2.

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:**

Answer Area
VCEplus.com

Statements	Yes	No
VM3 can establish a network connection to VM1. If VM3 is turned off, VM2 can establish a network connection to VM1. VM1 can establish a network connection to VM2.	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**  

**Statements**
**Yes**
**No**

VM3 can establish a network connection to VM1.



If VM3 is turned off, VM2 can establish a network connection to VM1.



VM1 can establish a network connection to VM2.


**Section: (none)**
**Explanation**
**Explanation/Reference:**
**Explanation:**

IP forwarding enables the virtual machine a network interface is attached to:

- Receive network traffic not destined for one of the IP addresses assigned to any of the IP configurations assigned to the network interface.
- Send network traffic with a different source IP address than the one assigned to one of a network interface's IP configurations.

The setting must be enabled for every network interface that is attached to the virtual machine that receives traffic that the virtual machine needs to forward. A virtual machine can forward traffic whether it has multiple network interfaces or a single network interface attached to it.

**Box 1: Yes**

The routing table allows connections from VM3 to VM1 and VM2. And as IP forwarding is enabled on VM3, VM3 can connect to VM1.


**Box 2: No**

VM3, which has IP forwarding, must be turned on, in order for VM2 to connect to VM1.

**Box 3: Yes**

The routing table allows connections from VM1 and VM2 to VM3. IP forwarding on VM3 allows VM1 to connect to VM2 via VM3.

**Reference:**

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview>

<https://www.quora.com/What-is-IP-forwarding>

**QUESTION 19**
**HOTSPOT**

You have an Azure subscription named Sub1.

You plan to deploy a multi-tiered application that will contain the tiers shown in the following table.

Tier	Accessible from the Internet	Number of virtual machines
Front-end web server	Yes	10
Business logic	No	100
Microsoft SQL Server database	No	5

You need to recommend a networking solution to meet the following requirements:

- Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines.
- Protect the web servers from SQL injection attacks.

Which Azure resource should you recommend for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Hot Area:**

**Answer Area**

Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines:

Protect the web servers from SQL injection attacks:

an application gateway that uses the Standard tier

an application gateway that uses the WAF tier

an internal load balancer

a network security group (NSG)

a public load balancer

an application gateway that uses the Standard tier

an application gateway that uses the WAF tier

an internal load balancer

a network security group (NSG)

a public load balancer

**Correct Answer:**

**Answer Area**

Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines:

Protect the web servers from SQL injection attacks:

an application gateway that uses the Standard tier

an application gateway that uses the WAF tier

an internal load balancer

a network security group (NSG)

a public load balancer

an application gateway that uses the Standard tier

an application gateway that uses the WAF tier

an internal load balancer

a network security group (NSG)

a public load balancer

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: an internal load balancer

Azure Internal Load Balancer (ILB) provides network load balancing between virtual machines that reside inside a cloud service or a virtual network with a regional scope.

Box 2: an application gateway that uses the WAF tier

Azure Web Application Firewall (WAF) on Azure Application Gateway provides centralized protection of your web applications from common exploits and vulnerabilities. Web applications are increasingly targeted by malicious attacks that exploit commonly known vulnerabilities.

Reference:  
<https://docs.microsoft.com/en-us/azure/web-application-firewall/ag/ag-overview>

**QUESTION 20**  
HOTSPOT

You plan to deploy five virtual machines to a virtual network subnet.

Each virtual machine will have a public IP address and a private IP address.

Each virtual machine requires the same inbound and outbound security rules.

What is the minimum number of network interfaces and network security groups that you require? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

Answer Area

Minimum number of network interfaces:

5
10
15
20

Minimum number of network security groups:

1
2
5
10

**Correct Answer:**

Answer Area

Minimum number of network interfaces:

5
10
15
20

Minimum number of network security groups:

1
2
5
10

**Section: (none)**  
**Explanation**

**Explanation/Reference:**  
Explanation:

Box 1: 5  
A public and a private IP address can be assigned to a single network interface.

Box 2: 1

You can associate zero, or one, network security group to each virtual network subnet and network interface in a virtual machine. The same network security group can be associated to as many subnets and network interfaces as you choose.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface-addresses>

### QUESTION 21

HOTSPOT

You have Azure virtual machines that run Windows Server 2019 and are configured as shown in the following table.

Name	Private IP address	Public IP address	Virtual network name	DNS suffix configured in Windows Server
VM1	10.1.0.4	52.186.85.63	VNET1	Adatum.com
VM2	10.1.0.5	13.92.168.13	VNET1	Contoso.com

You create a private Azure DNS zone named adatum.com. You configure the adatum.com zone to allow auto registration from VNET1.

Which A records will be added to the adatum.com zone for each virtual machine? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area  


A records for VM1:

None  
 Private IP address only  
 Public IP address only  
 Private IP address and public IP address

A records for VM2:

None  
 Private IP address only  
 Public IP address only  
 Private IP address and public IP address

Correct Answer:

Answer Area  


A records for VM1:

None  
 Private IP address only  
 Public IP address only  
 Private IP address and public IP address

A records for VM2:

None  
 Private IP address only  
 Public IP address only  
 Private IP address and public IP address

**Section: (none)**  
**Explanation:**

**Explanation/Reference:**  
Explanation:

The virtual machines are registered (added) to the private zone as A records pointing to their private IP addresses.

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

<https://docs.microsoft.com/en-us/azure/dns/private-dns-scenarios>

**QUESTION 22**  
**HOTSPOT**

You have an Azure virtual network named VNet1 that connects to your on-premises network by using a site-to-site VPN. VNet1 contains one subnet named Subnet1.

Subnet1 is associated to a network security group (NSG) named NSG1. Subnet1 contains a basic internal load balancer named ILB1. ILB1 has three Azure virtual machines in the backend pool.

You need to collect data about the IP addresses that connects to ILB1. You must be able to run interactive queries from the Azure portal against the collected data.

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

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

**Hot Area:**

**Answer Area**

Resource to create:

- An Azure Event Grid
- An Azure Log Analytics workspace
- An Azure Storage account

Resource on which to enable diagnostics:

- ILB1
- NSG1
- The Azure virtual machines

**Correct Answer:**

**Answer Area**

Resource to create:

- An Azure Event Grid
- An Azure Log Analytics workspace
- An Azure Storage account

Resource on which to enable diagnostics:

- ILB1
- NSG1
- The Azure virtual machines

Section: (none)

Explanation

**Explanation/Reference:**

Explanation:

Box 1: An Azure Log Analytics workspace

In the Azure portal you can set up a Log Analytics workspace, which is a unique Log Analytics environment with its own data repository, data sources, and solutions

Box 2: ILB1

Reference:

<https://docs.microsoft.com/en-us/azure/log-analytics/log-analytics-quick-create-workspace>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-diagnostics>

### QUESTION 23

HOTSPOT

You have an Azure subscription. The subscription contains virtual machines that run Windows Server 2016 and are configured as shown in the following table.

Name	Virtual network	DNS suffix configured in Windows Server
VM1	VNET2	Contoso.com
VM2	VNET2	None
VM3	VNET2	Adatum.com

You create a public Azure DNS zone named adatum.com and a private Azure DNS zone named contoso.com.

You create a virtual network link for contoso.com as shown in the following exhibit.



link1  
contoso.com

Save Discard Delete Access Control (IAM) Tags

Link name  
link1

Link state  
Completed

Provisioning state  
Succeeded

Virtual network details

Virtual network id  
`/subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG2/provi...`

Virtual network  
VNET2

Configuration  
 Enable auto registration

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:**

**Answer Area**

Statements	Yes	No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	<input type="radio"/>	<input type="radio"/>
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	<input type="radio"/>	<input type="radio"/>
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

Statements	Yes	No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	<input type="radio"/>	<input type="radio"/>
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	<input checked="" type="radio"/>	<input type="radio"/>
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	<input type="radio"/>	<input type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances>

<https://docs.microsoft.com/en-us/azure/dns/private-dns-autoregistration>

#### QUESTION 24

DRAG DROP

You have an Azure subscription that contains two virtual networks named VNet1 and VNet2. Virtual machines connect to the virtual networks.

The virtual networks have the address spaces and the subnets configured as shown in the following table.

Virtual network	Address space	Subnet	Peering
VNet1	10.1.0.0/16	10.1.0.0/24 10.1.1.0/26	VNet2
VNet2	10.2.0.0/16	10.2.0.0/24	VNet1

You need to add the address space of 10.33.0.0/16 to VNet1. The solution must ensure that the hosts on VNet1 and VNet2 can communicate.

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
Remove VNet1.	
Add the 10.33.0.0/16 address space to VNet1.	
Create a new virtual network named VNet1.	>
On the peering connection in VNet2, allow gateway transit.	<
Recreate peering between VNet1 and VNet2.	
On the peering connection in VNet1, allow gateway transit.	
Remove peering between VNet1 and VNet2.	

Correct Answer:

Actions	Answer Area
Remove VNet1.	Remove peering between VNet1 and VNet2.
	Add the 10.33.0.0/16 address space to VNet1.
Create a new virtual network named VNet1.	>
On the peering connection in VNet2, allow gateway transit.	<
	Recreate peering between VNet1 and VNet2.
	^
	v
On the peering connection in VNet1, allow gateway transit.	

**Section:** (none)  
**Explanation**

**Explanation/Reference:**  
**Explanation:**

Step 1: Remove peering between Vnet1 and VNet2.

You can't add address ranges to, or delete address ranges from a virtual network's address space once a virtual network is peered with another virtual network. To add or remove address ranges, delete the peering, add or remove the address ranges, then re-create the peering.

Step 2: Add the 10.44.0.0/16 address space to VNet1.

Step 3: Recreate peering between VNet1 and VNet2

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering>

**QUESTION 25**

HOTSPOT

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

Name	Location
RG1	West US
RG2	East US

RG1 contains the resources shown in the following table.

Name	Type	Location
storage1	Storage account	West US
VNet1	Virtual network	West US
NIC1	Network interface	West US
Disk1	Disk	West US
VM1	Virtual machine	West US

VM1 is running and connects to NIC1 and Disk1. NIC1 connects to VNET1.

RG2 contains a public IP address named IP2 that is in the East US location. IP2 is not assigned to a virtual machine.

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:**

**Answer Area**

Statements	Yes	No
You can move storage1 to RG2.	<input type="radio"/>	<input type="radio"/>
You can move NIC1 to RG2.	<input type="radio"/>	<input type="radio"/>
If you move IP2 to RG1, the location of IP2 will change.	<input checked="" type="radio"/>	<input type="radio"/>

**Correct Answer:**

Statements	Yes	No
You can move storage1 to RG2.	<input checked="" type="radio"/>	<input type="radio"/>
You can move NIC1 to RG2.	<input type="radio"/>	<input checked="" type="radio"/>
If you move IP2 to RG1, the location of IP2 will change.	<input checked="" type="radio"/>	<input type="radio"/>

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: Yes

You can move storage

Box 2: No

You can't move to a new resource group a NIC that is attached to a virtual machine.

Box 3: No

Azure Public IPs are region specific and can't be moved from one region to another.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-support-resources>

<https://docs.microsoft.com/en-us/azure/virtual-network/move-across-regions-publicip-powershell>



#### QUESTION 26

You have an Azure web app named webapp1.

You have a virtual network named VNET1 and an Azure virtual machine named VM1 that hosts a MySQL database. VM1 connects to VNET1.

You need to ensure that webapp1 can access the data hosted on VM1.

What should you do?

- A. Deploy an internal load balancer
- B. Peer VNET1 to another virtual network
- C. Connect webapp1 to VNET1
- D. Deploy an Azure Application Gateway

Correct Answer: D

Section: (none)

Explanation

Explanation/Reference:

#### QUESTION 27

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

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

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You modify the Azure Active Directory (Azure AD) authentication policies.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Instead export the client certificate from Computer1 and install the certificate on Computer2.

Note:

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed. You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

## QUESTION 28

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

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

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You join Computer2 to Azure Active Directory (Azure AD)

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A client computer that connects to a VNet using Point-to-Site must have a client certificate installed.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

## QUESTION 29

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

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

You have an Azure subscription that contains 10 virtual networks. The virtual networks are hosted in separate resource groups.

Another administrator plans to create several network security groups (NSGs) in the subscription.

You need to ensure that when an NSG is created, it automatically blocks TCP port 8080 between the virtual networks.

Solution: You create a resource lock, and then you assign the lock to the subscription.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

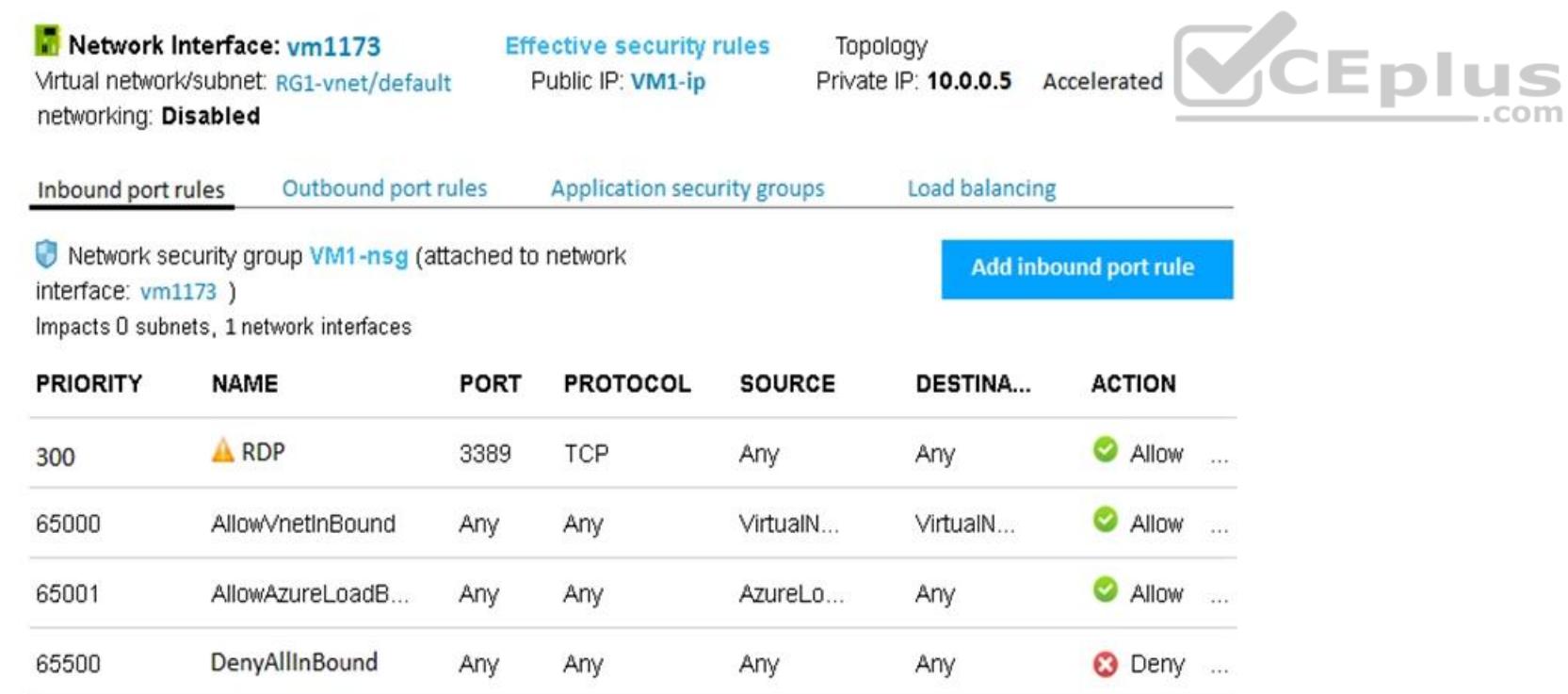
**Explanation/Reference:**

#### QUESTION 30

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1.

You have a computer named Computer1 that runs Windows 10. Computer1 is connected to the Internet.

You add a network interface named vm1173 to VM1 as shown in the exhibit. (Click the **Exhibit** tab.)



**Network Interface: vm1173**  
Virtual network/subnet: RG1-vnet/default  
Public IP: VM1-ip  
Private IP: 10.0.0.5  
Accelerated networking: Disabled

**Effective security rules**  
Topology

Inbound port rules    Outbound port rules    Application security groups    Load balancing

**Add inbound port rule**

PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION
300	⚠️ RDP	3389	TCP	Any	Any	Allow ...
65000	AllowVnetInbound	Any	Any	VirtualN...	VirtualN...	Allow ...
65001	AllowAzureLoadB...	Any	Any	AzureLo...	Any	Allow ...
65500	DenyAllInbound	Any	Any	Any	Any	Deny ...

From Computer1, you attempt to connect to VM1 by using Remote Desktop, but the connection fails.

You need to establish a Remote Desktop connection to VM1.

What should you do first?

A. Change the priority of the RDP rule

- B. Attach a network interface
- C. Delete the DenyAllInbound rule
- D. Start VM1

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Incorrect Answers:

A: Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. RDP already has the lowest number and thus the highest priority.

B: The network interface has already been added to VM.

C: The Outbound rules are fine.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

### QUESTION 31

You have the Azure virtual machines shown in the following table.

Name	IP address	Connected to
VM1	10.1.0.4	VNET1/Subnet1
VM2	10.1.10.4	VNET1/Subnet2
VM3	172.16.0.4	VNET2/SubnetA
VM4	10.2.0.8	VNET3/SubnetB

A DNS service is installed on VM1.

You configure the DNS servers settings for each virtual network as shown in the following exhibit.



Save Discard

---

DNS servers ⓘ

Default (Azure-provided)

Custom

10.1.0.4 ...

Add DNS server ...

You need to ensure that all the virtual machines can resolve DNS names by using the DNS service on VM1.

What should you do?

- A. Configure a conditional forwarder on VM1
- B. Add service endpoints on VNET1
- C. Add service endpoints on VNET2 and VNET3
- D. Configure peering between VNET1, VNET2, and VNET3

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Virtual network peering enables you to seamlessly connect networks in Azure Virtual Network. The virtual networks appear as one for connectivity purposes. The traffic between virtual machines uses the Microsoft backbone infrastructure.

Incorrect Answers:

B, C: Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network. Endpoints allow you to secure your critical Azure service resources to only your virtual networks. Service Endpoints enables private IP addresses in the VNet to reach the endpoint of an Azure service without needing a public IP address on the VNet.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview>

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>

**QUESTION 32**

HOTSPOT

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

Name	Connected to subnet
VM1	172.16.1.0/24
VM2	172.16.2.0/24

You add inbound security rules to a network security group (NSG) named NSG1 as shown in the following table.

Priority	Source	Destination	Protocol	Port	Action
100	172.16.1.0/24	172.16.2.0/24	TCP	Any	Allow
101	Any	172.16.2.0/24	TCP	Any	Deny

You run Azure Network Watcher as shown in the following exhibit.



Resource group \*

Source type \*

\* Virtual machine

Destination

Select a virtual machine  Specify manually

Resource group \*

Virtual machine\* 

Probe Settings

Protocol 

TCP  ICMP

Destination port \* 

Advanced settings

**Check**

Status

 Unreachable

Agent extension version  
1.4

Source virtual machine

VM1

[Grid view](#) [Topology view](#)

Hops

NAME	IP ADDRESS	STATUS	NEXT HOP IP ADDRESS	RTT FROM SOURCE (...
VM1	172.16.1.4		172.16.2.4	-
VM2	172.16.2.4		-	-



You run Network Watcher again as shown in the following exhibit.

Source type \*

\* Virtual machine

Destination

Select a virtual machine  Specify manually

Resource group \*

Virtual machine\* 

Probe Settings

Protocol 

TCP  ICMP

**Check**

Status

Reachable

Agent extension version

1.4

Source virtual machine

VM1

[Grid view](#) [Topology view](#)

Hops

NAME	IP ADDRESS	STATUS	NEXT HOP IP ADDRESS	RTT FROM SOURCE (...
VM1	172.16.1.4		172.16.2.4	0
VM2	172.16.2.4		-	-



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:**

**Answer Area**

Statements	Yes	No
NSG1 limits VM1 traffic	<input type="radio"/>	<input type="radio"/>
NSG1 applies to VM2	<input type="radio"/>	<input type="radio"/>
VM1 and VM2 connect to the same virtual network	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

**Answer Area**

Statements	Yes	No
NSG1 limits VM1 traffic	<input type="radio"/>	<input checked="" type="radio"/>
NSG1 applies to VM2	<input checked="" type="radio"/>	<input type="radio"/>
VM1 and VM2 connect to the same virtual network	<input type="radio"/>	<input checked="" type="radio"/>

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Box 1: No

It limits traffic to VM2, but not VM1 traffic.

Box 2: Yes

Yes, the destination is VM2.

Box 3: No

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/network-security-group-how-it-works>**QUESTION 33**

You have the Azure virtual network named VNet1 that contains a subnet named Subnet1. Subnet1 contains three Azure virtual machines. Each virtual machine has a public IP address.

The virtual machines host several applications that are accessible over port 443 to users on the Internet.

Your on-premises network has a site-to-site VPN connection to VNet1.

You discover that the virtual machines can be accessed by using the Remote Desktop Protocol (RDP) from the Internet and from the on-premises network.

You need to prevent RDP access to the virtual machines from the Internet, unless the RDP connection is established from the on-premises network. The solution must ensure that all the applications can still be accessed by the Internet users.

What should you do?

- A. Modify the address space of the local network gateway
- B. Create a deny rule in a network security group (NSG) that is linked to Subnet1
- C. Remove the public IP addresses from the virtual machines
- D. Modify the address space of Subnet1

**Correct Answer: B****Section: (none)****Explanation****Explanation/Reference:**

Explanation:

You can use a site-to-site VPN to connect your on-premises network to an Azure virtual network. Users on your on-premises network connect by using the RDP or SSH protocol over the site-to-site VPN connection. You don't have to allow direct RDP or SSH access over the internet.

Reference:

<https://docs.microsoft.com/en-us/azure/security/fundamentals/network-best-practices>

**QUESTION 34**

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

Name	Type
ASG1	Application security group
NSG1	Network security group (NSG)
Subnet1	Subnet
VNet1	Virtual network
NIC1	Network interface
VM1	Virtual machine

Subnet1 is associated to VNet1. NIC1 attaches VM1 to Subnet1.

You need to apply ASG1 to VM1.

What should you do?

- A. Associate NIC1 to ASG1
- B. Modify the properties of ASG1
- C. Modify the properties of NSG1

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Application Security Group can be associated with NICs.

References:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#application-security-groups>

**QUESTION 35**

You have an Azure subscription named Subscription1 that contains an Azure virtual network named VNet1. VNet1 connects to your on-premises network by using Azure ExpressRoute.

You plan to prepare the environment for automatic failover in case of ExpressRoute failure.

You need to connect VNet1 to the on-premises network by using a site-to-site VPN. The solution must minimize cost.

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

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

- A. Create a connection
- B. Create a local site VPN gateway
- C. Create a VPN gateway that uses the VpnGw1 SKU
- D. Create a gateway subnet
- E. Create a VPN gateway that uses the Basic SKU

**Correct Answer:** ADE

**Section:** (none)

**Explanation**

**Explanation/Reference:**

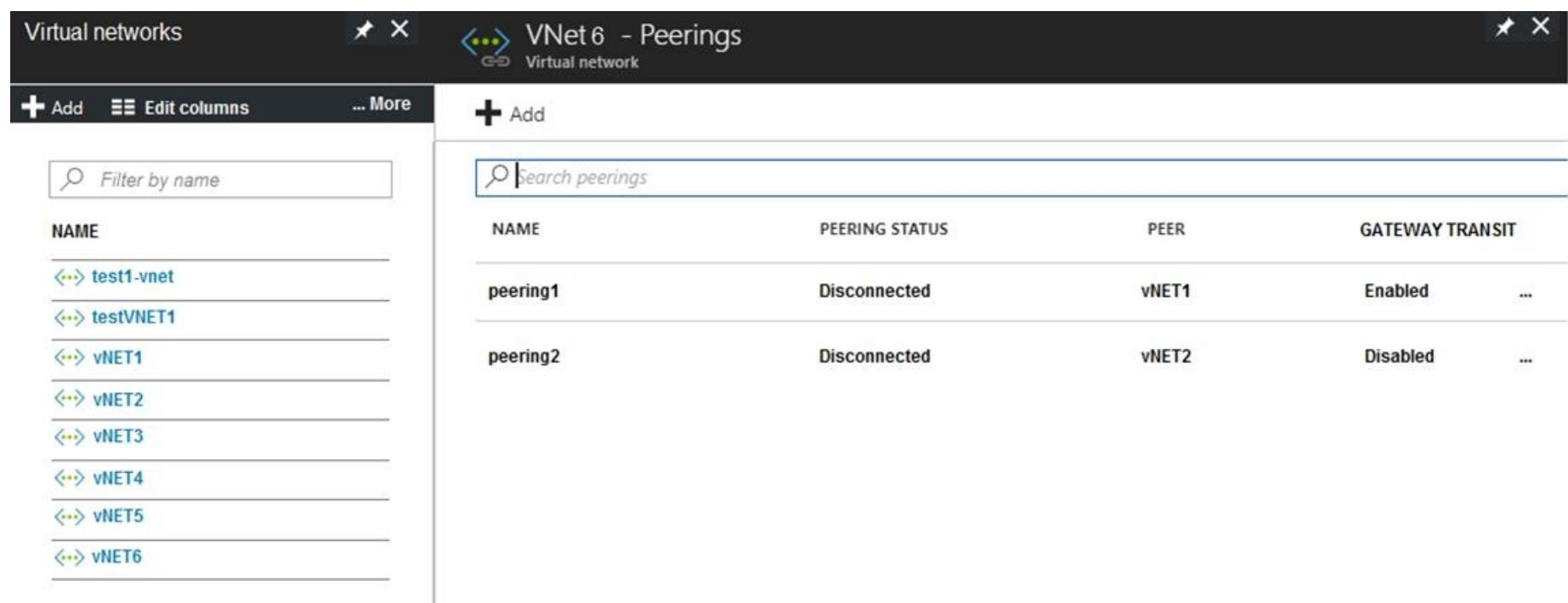
Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal>

**QUESTION 36**

HOTSPOT

You have peering configured as shown in the following exhibit.



The screenshot shows two main sections in the Azure portal:

- Virtual networks:** A list of virtual networks including test1-vnet, testVNET1, vNET1, vNET2, vNET3, vNET4, vNET5, and vNET6.
- VNet 6 - Peerings:** A list of peering connections:
 

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
peering1	Disconnected	vNET1	Enabled
peering2	Disconnected	vNET2	Disabled

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

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

**Hot Area:**

### Answer Area



Hosts on vNET6 can communicate with hosts on [answer choice].

vNET6 only
vNET6 and vNET1 only
vNET6, vNET1, and vNET2 only
all the virtual networks in the subscription

To change the status of the peering connection to vNET1 to **Connected**, you must first [answer choice].

add a service endpoint
add a subnet
delete peering1
modify the address space

**Correct Answer:**

## Answer Area

Hosts on vNET6 can communicate with hosts on [answer choice].

vNET6 only
vNET6 and vNET1 only
vNET6, vNET1, and vNET2 only
all the virtual networks in the subscription

To change the status of the peering connection to vNET1 to **Connected**, you must first [answer choice].

add a service endpoint
add a subnet
delete peering1
modify the address space

### Section: (none)

#### Explanation

#### Explanation/Reference:

Explanation:

Box 1: vNET6 only

Peering status to both VNet1 and Vnet2 are disconnected.

Box 2: delete peering1

Peering to Vnet1 is Enabled but disconnected. We need to update or re-create the remote peering to get it back to Initiated state.

Reference:

<https://blog.kloud.com.au/2018/10/19/address-space-maintenance-with-vnet-peering/>



### QUESTION 37

You create an Azure VM named VM1 that runs Windows Server 2019.

VM1 is configured as shown in the exhibit. (Click the Exhibit tab.)

**VM1**  
Virtual machine

Search (Ctrl+/)

Connect Start Restart Stop Capture Delete Refresh

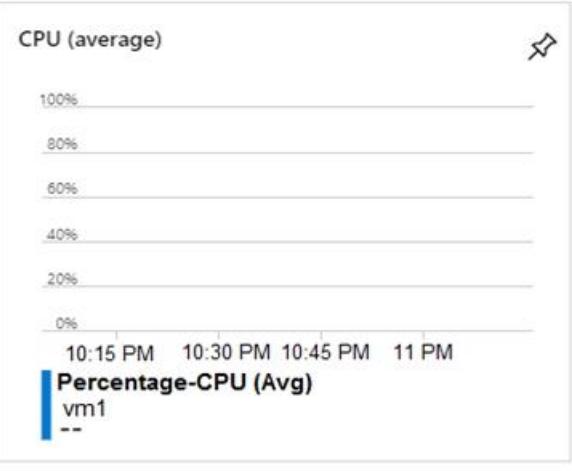
**Resource group (change)**: RG1  
**Status**: Stopped (deallocated)  
**Location**: West Europe  
**Subscription (change)**: Azure Pass – Sponsorship  
**Subscription ID**: 90f9d59c-629e-4346-b577-8b7e1ef1316a

**Computer name**: (start VM to view)  
**Operating system**: Windows  
**Size**: Standard DS2 v2 (2 vcpus, 7 GiB memory)  
**Ephemeral OS disk**: N/A  
**Public IP address**: VM1-ip  
**Private IP address**: 10.0.0.4  
**Virtual network/subnet**: VNET1/default  
**DNS name**: Configure

**Tags (change)**: Click here to add tags

Show data for last: 1 hour 6 hours 12 hours 1 day 7 days 30 days

**CPU (average)**



Percentage-CPU (Avg)  
vm1  
--

**Network (total)**




You need to enable Desired State Configuration for VM1.

What should you do first?

- A. Connect to VM1.
- B. Start VM1.
- C. Capture a snapshot of VM1.
- D. Configure a DNS name for VM1.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Status is Stopped (Deallocated).

The DSC extension for Windows requires that the target virtual machine is able to communicate with Azure.

The VM needs to be started.

Reference:  
<https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-windows>

### QUESTION 38

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to **Disabled**
- B. Idle Time-out (minutes) to **20**
- C. Protocol to **UDP**
- D. Session persistence to **Client IP**

**Correct Answer:** D

**Section:** (none)

**Explanation**

#### Explanation/Reference:

Explanation:  
With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP or to Client IP and protocol.

On the following image you can see sticky session configuration:

Note:

- Client IP and protocol specifies that successive requests from the same client IP address and protocol combination will be handled by the same virtual machine.
- Client IP specifies that successive requests from the same client IP address will be handled by the same virtual machine.

Reference:

<https://cloudopszone.com/configure-azure-load-balancer-for-sticky-sessions/>

### QUESTION 39

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

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

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections

NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule:

- Priority: 100
- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDP
- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 that allows connections from the Any source to the \*destination for port range 3389 and uses the TCP protocol. You remove NSG-VM1 from the network interface of VM1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection>

#### QUESTION 40

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

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

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections



NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule:

- Priority: 100
- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDP
- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 that allows connections from the internet source to the VirtualNetwork destination for port range 3389 and uses the UDP protocol.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection>

#### QUESTION 41

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

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

You have an Azure subscription that contains the following resources:

- A virtual network that has a subnet named Subnet1
- Two network security groups (NSGs) named NSG-VM1 and NSG-Subnet1
- A virtual machine named VM1 that has the required Windows Server configurations to allow Remote Desktop connections

NSG-Subnet1 has the default inbound security rules only.

NSG-VM1 has the default inbound security rules and the following custom inbound security rule:

- Priority: 100
- Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDP
- Action: Allow

VM1 has a public IP address and is connected to Subnet1. NSG-VM1 is associated to the network interface of VM1. NSG-Subnet1 is associated to Subnet1.

You need to be able to establish Remote Desktop connections from the internet to VM1.

Solution: You add an inbound security rule to NSG-Subnet1 and NSG-VM1 that allows connections from the internet source to the VirtualNetwork destination for port range 3389 and uses the TCP protocol.

Does this meet the goal?

A. Yes

B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

The default port for RDP is TCP port 3389. A rule to permit RDP traffic must be created automatically when you create your VM.

Note on NSG-Subnet1: Azure routes network traffic between all subnets in a virtual network, by default.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/troubleshooting/troubleshoot-rdp-connection>

#### QUESTION 42

HOTSPOT

You have a virtual network named VNet1 that has the configuration shown in the following exhibit.

```

Name          : VNet1
ResourceGroupName : Production
Location       : westus
Id            : /subscriptions/14d26092-8e42-4ea7-b770-
9dcef70fblea/resourceGroups/Production/providers/Microsoft.Network/virtualNetworks/VNet1
Etag          : W/"76f7edd6-d022-455b-aeae-376059318e5d"
ResourceGuid   : 562696cc-b2ba-4cc5-9619-0a735d6c34c7
ProvisioningState : Succeeded
Tags          :
AddressSpace   : {
    "AddressPrefixes": [
        "10.2.0.0/16"
    ]
}
DhcpOptions    : {}
Subnets        : [
    {
        "Name": "default",
        "Etag": "W/\\"76f7edd6-d022-455b-aeae-376059318e5d\\\"",
        "Id": "/subscriptions/14d26092-8e42-4ea7-b770-
9dcef70fblea/resourceGroups/Production/providers/Microsoft.Network/
virtualNetworks/VNet1/subnets/default",
        "AddressPrefix": "10.2.0.0/24",
        "IpConfigurations": [],
        "ResourceNavigationLinks": [],
        "ServiceEndpoints": [],
        "ProvisioningState": "Succeeded"
    }
]
VirtualNetworkPeerings : []
EnableDDoSProtection : false
EnableVmProtection   : false

```

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

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

**Hot Area:**

**Answer Area**

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first

- ▼
- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first

- ▼
- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

**Correct Answer:**

## Answer Area

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first

- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first

- add a network interface
- add a subnet
- add an address space
- delete a subnet
- delete an address space

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: add an address space

Your IaaS virtual machines (VMs) and PaaS role instances in a virtual network automatically receive a private IP address from a range that you specify, based on the address space of the subnet they are connected to. We need to add the 192.168.1.0/24 address space.

Box 2: add a network interface

The 10.2.1.0/24 network exists. We need to add a network interface.



Reference:

<https://docs.microsoft.com/en-us/office365/enterprise/designing-networking-for-microsoft-azure-iaas>

### QUESTION 43

You have an Azure subscription that contains a virtual network named VNET1. VNET1 contains the subnets shown in the following table.

Name	Connected virtual machines
Subnet1	VM1, VM2
Subnet2	VM3, VM4
Subnet3	VM5, VM6

Each virtual machine uses a static IP address.

You need to create network security groups (NSGs) to meet following requirements:

- Allow web requests from the internet to VM3, VM4, VM5, and VM6.
- Allow all connections between VM1 and VM2.
- Allow Remote Desktop connections to VM1.
- Prevent all other network traffic to VNET1.

What is the minimum number of NSGs you should create?

- A. 1
- B. 3
- C. 4
- D. 12

**Correct Answer: C**

**Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Each network security group also contains default security rules.

Note: A network security group (NSG) contains a list of security rules that allow or deny network traffic to resources connected to Azure Virtual Networks (VNet). NSGs can be associated to subnets, individual VMs (classic), or individual network interfaces (NIC) attached to VMs (Resource Manager).

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview#default-security-rules>**QUESTION 44**

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

Name	Type	Resource group
VNET1	Virtual network	RG1
VM1	Virtual machine	RG1

The Not allowed resource types Azure policy is assigned to RG1 and uses the following parameters:

```
Microsoft.Network/virtualNetworks  
Microsoft.Compute/virtualMachines
```

In RG1, you need to create a new virtual machine named VM2, and then connect VM2 to VNET1.

What should you do first?

- A. Remove Microsoft.Compute/virtualMachines from the policy.
- B. Create an Azure Resource Manager template
- C. Add a subnet to VNET1.
- D. Remove Microsoft.Network/virtualNetworks from the policy.

**Correct Answer: A****Section: (none)****Explanation****Explanation/Reference:**

Explanation:

The Not allowed resource types Azure policy prohibits the deployment of specified resource types. You specify an array of the resource types to block.

Virtual Networks and Virtual Machines are prohibited.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/samples/not-allowed-resource-types>**QUESTION 45**

Your company has an Azure subscription named Subscription1.

The company also has two on-premises servers named Server1 and Server2 that run Windows Server 2016. Server1 is configured as a DNS server that has a primary DNS zone named adatum.com. Adatum.com contains 1,000 DNS records.

You manage Server1 and Subscription1 from Server2. Server2 has the following tools installed:

- The DNS Manager console
- Azure PowerShell
- Azure CLI 2.0

You need to move the adatum.com zone to an Azure DNS zone in Subscription1. The solution must minimize administrative effort.

What should you use?

- A. Azure CLI
- B. Azure PowerShell
- C. the Azure portal
- D. the DNS Manager console

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Step 1: Installing the DNS migration script

Open an elevated PowerShell window (Administrative mode) and run following command

```
install-script PrivateDnsMigrationScript
```

Step 2: Running the script

Execute following command to run the script

```
PrivateDnsMigrationScript.ps1
```

Reference:

<https://docs.microsoft.com/en-us/azure/dns/private-dns-migration-guide>

#### QUESTION 46

You have a public load balancer that balances ports 80 and 443 across three virtual machines.

You need to direct all the Remote Desktop Protocol (RDP) connections to VM3 only.

What should you configure?

- A. an inbound NAT rule
- B. a new public load balancer for VM3
- C. a frontend IP configuration
- D. a load balancing rule



**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/tutorial-load-balancer-port-forwarding-portal>

<https://pixelrobots.co.uk/2017/08/azure-load-balancer-for-rds/>

#### QUESTION 47

HOTSPOT

You have an Azure subscription named Subscription1 that contains the virtual networks in the following table.

Name	Subnets
VNet1	Subnet11, Subnet12
VNet2	Subnet13

Subscription1 contains the virtual machines in the following table.

Name	Subnet	Availability set
VM1	Subnet11	AS1
VM2	Subnet11	AS1
VM3	Subnet11	<i>Not applicable</i>
VM4	Subnet11	<i>Not applicable</i>
VM5	Subnet12	<i>Not applicable</i>
VM6	Subnet12	<i>Not applicable</i>

In Subscription1, you create a load balancer that has the following configurations:

- Name: LB1
- SKU: Basic
- Type: Internal
- Subnet: Subnet12
- Virtual network: VNET1

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:**

### Answer Area

Statements	Yes	No
LB1 can balance the traffic between VM1 and VM2.	<input type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM3 and VM4.	<input type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM5 and VM6.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

### Answer Area

Statements	Yes	No
LB1 can balance the traffic between VM1 and VM2.	<input checked="" type="radio"/>	<input type="radio"/>
LB1 can balance the traffic between VM3 and VM4.	<input type="radio"/>	<input checked="" type="radio"/>
LB1 can balance the traffic between VM5 and VM6.	<input type="radio"/>	<input checked="" type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-overview>

**QUESTION 48**

## HOTSPOT

You have an Azure virtual machine that runs Windows Server 2019 and has the following configurations:

- Name: VM1
- Location: West US
- Connected to: VNET1
- Private IP address: 10.1.0.4
- Public IP addresses: 52.186.85.63
- DNS suffix in Windows Server: Adatum.com

You create the Azure DNS zones shown in the following table.

Name	Type	Location
Adatum.pri	Private	West Europe
Contoso.pri	Private	Central US
Adatum.com	Public	West Europe
Contoso.com	Public	North Europe

You need to identify which DNS zones you can link to VNET1 and the DNS zones to which VM1 can automatically register.

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

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

**Hot Area:**

**Answer Area**

DNS zones that you can link to VNET1:

Adatum.com only

Adatum.pri and adatum.com only

The private zones only

The public zones only

DNS zones to which VM1 can automatically register:

Adatum.com only

Adatum.pri and adatum.com only

The private zones only

The public zones only

**Correct Answer:**

## Answer Area

DNS zones that you can link to VNET1:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

DNS zones to which VM1 can automatically register:

Adatum.com only
Adatum.pri and adatum.com only
The private zones only
The public zones only

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Reference:

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

### QUESTION 49

DRAG DROP

You have an on-premises network that you plan to connect to Azure by using a site-to-site VPN.

In Azure, you have an Azure virtual network named VNet1 that uses an address space of 10.0.0.0/16. VNet1 contains a subnet named Subnet1 that uses an address space of 10.0.0.0/24.

You need to create a site-to-site VPN to Azure.

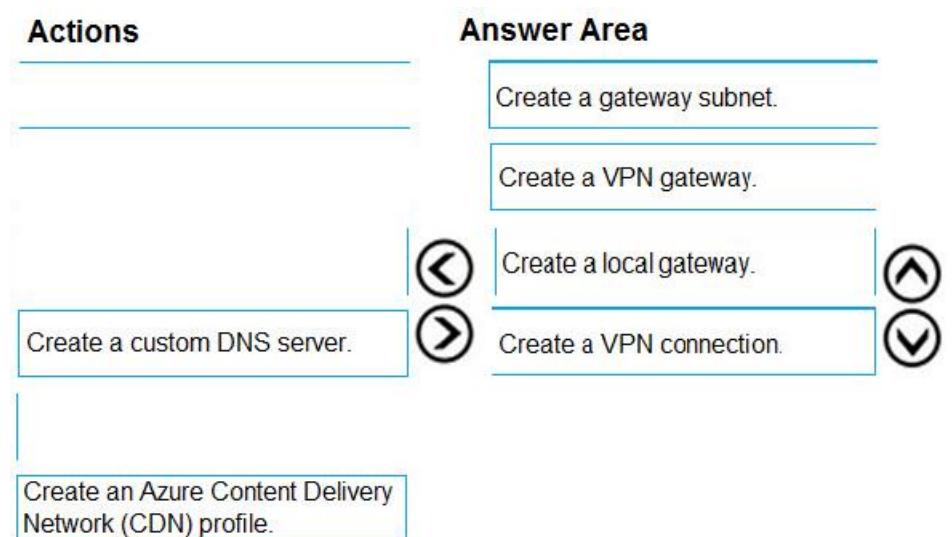
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

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

**Select and Place:**

Actions	Answer Area
Create a local gateway.	
Create a VPN gateway.	
Create a gateway subnet.	
Create a custom DNS server.	
Create a VPN connection.	
Create an Azure Content Delivery Network (CDN) profile.	

**Correct Answer:**



Section: (none)

Explanation

Explanation/Reference:

#### QUESTION 50

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

Name	Type	Details
VNet1	Virtual network	<i>Not applicable</i>
Subnet1	Subnet	Hosted on VNet1
VM1	Virtual machine	On Subnet1
VM2	Virtual machine	On Subnet1



VM1 and VM2 are deployed from the same template and host line-of-business applications.

You configure the network security group (NSG) shown in the exhibit. (Click the **Exhibit** tab.)

Move Delete Refresh

Resource group (change) : RG1lod9053488  
 Location : East US  
 Subscription (change) : Microsoft AZ  
 Subscription ID : ac344a74-f85a-4b2e-8057-642088faaf20

Custom security rules : 1 inbound, 1 outbound  
 Associated with : 0 subnets, 0 network interfaces

Tags (change) : Click here to add tags

Inbound security rules						
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
100	Port_80	80	TCP	Internet	Any	<input checked="" type="radio"/> Deny
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="radio"/> Allow
65001	Allow AzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<input checked="" type="radio"/> Allow
65500	DenyAllInBound	Any	Any	Any	Any	<input checked="" type="radio"/> Deny

Outbound security rules						
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION
100	DenyWebSites	80	TCP	Any	Internet	<input checked="" type="radio"/> Deny
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="radio"/> Allow
65001	AllowInternetOutBound	Any	Any	Any	Internet	<input checked="" type="radio"/> Allow
65500	DenyAllOutBound	Any	Any	Any	Any	<input checked="" type="radio"/> Deny

You need to prevent users of VM1 and VM2 from accessing websites on the Internet over TCP port 80.

What should you do?

- A. Disassociate the NSG from a network interface
- B. Change the Port\_80 inbound security rule.
- C. Associate the NSG to Subnet1.
- D. Change the DenyWebSites outbound security rule.



**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

You can associate or dissociate a network security group from a network interface or subnet.

The NSG has the appropriate rule to block users from accessing the Internet. We just need to associate it with Subnet1.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/manage-network-security-group>

### QUESTION 51

You have two subscriptions named Subscription1 and Subscription2. Each subscription is associated to a different Azure AD tenant.

Subscription1 contains a virtual network named VNet1. VNet1 contains an Azure virtual machine named VM1 and has an IP address space of 10.0.0.0/16.

Subscription2 contains a virtual network named VNet2. VNet2 contains an Azure virtual machine named VM2 and has an IP address space of 10.10.0.0/24.

You need to connect VNet1 to VNet2.

What should you do first?

- A. Move VM1 to Subscription2.
- B. Move VNet1 to Subscription2.
- C. Modify the IP address space of VNet2.
- D. Provision virtual network gateways.

Correct Answer: D  
Section: (none)  
Explanation

**Explanation/Reference:**

Explanation:  
The virtual networks can be in the same or different regions, and from the same or different subscriptions. When connecting VNets from different subscriptions, the subscriptions do not need to be associated with the same Active Directory tenant.

Configuring a VNet-to-VNet connection is a good way to easily connect VNets. Connecting a virtual network to another virtual network using the VNet-to-VNet connection type (VNet2VNet) is similar to creating a Site-to-Site IPsec connection to an on-premises location. Both connectivity types use a VPN gateway to provide a secure tunnel using IPsec/IKE, and both function the same way when communicating.

The local network gateway for each VNet treats the other VNet as a local site. This lets you specify additional address space for the local network gateway in order to route traffic.

Reference:  
<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-vnet-vnet-resource-manager-portal>

**QUESTION 52**

You plan to create an Azure virtual machine named VM1 that will be configured as shown in the following exhibit.

**Create a virtual machine**

**⚠️** Changing Basic options may reset selections you have made. Review all options prior to creating the virtual machine.

**Basics** Disks Networking Management Advanced Tags Review + create

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image.  
Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization.  
Looking for classic VMs? [Create VM from Azure Marketplace](#)

**PROJECT DETAILS**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

\* Subscription [MyDev-Test Subscription](#)  
\* Resource group [RG1](#) [Create new](#)

**INSTANCE DETAILS**

\* Virtual machine name [VM1](#)  
\* Region [\(US\) West US 2](#)  
Availability options [No infrastructure redundancy required](#)  
\* Image [Windows Server 2016 Datacenter](#) [Browse all public and private images](#)

Azure Spot instance [Yes](#)  No

\* Size [Standard DS1 v2](#)  
1 vcpu, 3.5 GiB memory (ZAR 632.47/month)  
[Change size](#)

The planned disk configurations for VM1 are shown in the following exhibit.

Basics Disks Networking Management Advanced Tags Review + create

Azure VMs have one operating system disk and a temporary disk for short-term storage. You can attach additional data disks. The size of the VM determines the type of storage you can use and the number of data disks allowed. [Learn more](#)

**Disk options**

\* OS disk type  Standard HDD  Premium SSD

The selected VM size supports premium disks. We recommend Premium SSD for high IOPS workloads. Virtual machines with Premium SSD disks qualify for the 99.9% connectivity SLA.

Enable Ultra Disk compatibility (Preview)  Yes  No  
Ultra Disks are only available when using Managed Disks.

**Data disks**

You can add and configure additional data disks for your virtual machine or attach existing disks. This VM also comes with a temporary disk.

 Adding unmanaged data disks is currently not supported at the time of VM creation. You can add them after the VM is created.

**Advanced**

Use managed disks  No  Yes

\* Storage account  (new) rg1 disks799  Create new



You need to ensure that VM1 can be created in an Availability Zone.

Which two settings should you modify? Each correct answer presents part of the solution.

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

- A. Use managed disks
- B. OS disk type
- C. Availability options
- D. Size
- E. Image

**Correct Answer:** AB

**Section:** (none)

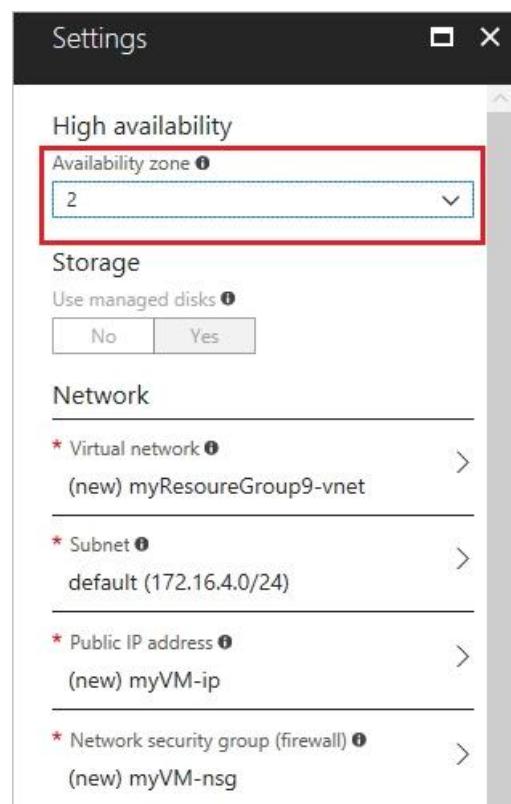
**Explanation**

**Explanation/Reference:**

Explanation:

A: Your VMs should use managed disks if you want to move them to an Availability Zone by using Site Recovery.

B: When you create a VM for an Availability Zone, Under Settings > High availability, select one of the numbered zones from the Availability zone dropdown.



Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/move-azure-vms-avset-azone>

<https://docs.microsoft.com/en-us/azure/virtual-machines/windows/create-portal-availability-zone>

### QUESTION 53

HOTSPOT

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

Name	Type	Resource group	Location
RG1	Resource group	<i>Not applicable</i>	Central US
RG2	Resource group	<i>Not applicable</i>	West US
RG3	Resource group	<i>Not applicable</i>	East US
VMSS1	Virtual machine scale set	RG1	West US

VMSS1 is set to VM (virtual machines) orchestration mode.

You need to deploy a new Azure virtual machine named VM1, and then add VM1 to VMSS1.

Which resource group and location should you use to deploy VM1? To answer, select the appropriate options in the answer area.

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

**Hot Area:**



### Answer Area

Resource group:	RG1 only RG2 only RG1 or RG2 only <b>RG1, RG2, or RG3</b>
Location:	West US only Central US only Central US or West US only <b>East US, Central US, or West US</b>

**Correct Answer:**

### Answer Area

Resource group:	RG1 only RG2 only RG1 or RG2 only <b>RG1, RG2, or RG3</b>
Location:	<span style="background-color: #c0eef3; padding: 2px 5px;">West US only</span> Central US only Central US or West US only East US, Central US, or West US

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: RG1, RG2, or RG3

The resource group stores metadata about the resources. When you specify a location for the resource group, you're specifying where that metadata is stored.

Box 2: West US only

Note: Virtual machine scale sets will support 2 distinct orchestration modes:

ScaleSetVM – Virtual machine instances added to the scale set are based on the scale set configuration model. The virtual machine instance lifecycle - creation, update, deletion - is managed by the scale set.  
 VM (virtual machines) – Virtual machines created outside of the scale set can be explicitly added to the scaleset.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview>

### QUESTION 54

HOTSPOT

Peering for VNET2 is configured as shown in the following exhibit.

**VNET2 | Peerings**

Virtual network

Search (Ctrl+/) Add Refresh X

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Search peerings

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled ...

Peering for VNET3 is configured as shown in the following exhibit.

**VNET3 | Peerings**

Virtual network

Search (Ctrl+/) Add Refresh X

Overview Activity log Access control (IAM) Tags Diagnose and solve problems

Search peerings

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled ...

How can packets be routed between the virtual networks? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

### Answer Area

Packets from VNET1 can be routed to:

VNET2 only
VNET3 only
VNET2 and VNET3

Packets from VNET2 can be routed to:

VNET1 only
VNET3 only
VNET1 and VNET3

**Correct Answer:**

## Answer Area

Packets from VNET1 can be routed to:

VNET2 only
VNET3 only
VNET2 and VNET3

Packets from VNET2 can be routed to:

VNET1 only
VNET3 only
VNET1 and VNET3

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1. VNET2 and VNET3

Box 2: VNET1

Gateway transit is disabled.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>

### QUESTION 55

HOTSPOT

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



Name	Type
VM1	Virtual machine
VM2	Virtual machine
LB1	Load balancer (Basic SKU)

You install the Web Server server role (IIS) on VM1 and VM2, and then add VM1 and VM2 to LB1.

LB1 is configured as shown in the **LB1** exhibit. (Click the **LB1** tab.)

Essentials ^

Resource group ( <a href="#">change</a> )	Backend pool
<b>VMRG</b>	Backend1 (2 virtual machines)
Location	Health probe
West Europe	Probe1(HTTP:80/Probe1.htm)
Subscription name ( <a href="#">change</a> )	Load balancing rule
<b>Azure Pass</b>	Rule1 (TCP/80)
Subscription ID	NAT rules
e65d2b22-fde8	-
SKU	Public IP address
Basic	<a href="#">104.40.178.194 (LB1)</a>

Rule1 is configured as shown in the **Rule1** exhibit. (Click the **Rule1** tab.)

\* Name  
Rule1

\* IP Version  
 IPv4  IPv6

\* Frontend IP address ⓘ  
104.40.178.194 (LoadBalanceFrontEnd) ▾

Protocol  
 TCP  UDP

\* Port  
80

\* Backend port ⓘ  
80

Backend pool ⓘ  
Backend1 (2 virtual machines) ▾

Health probe ⓘ  
Probe1 (HTTP:80/Probe1.htm) ▾

Session persistence ⓘ  
None ▾

Idle timeout (minutes) ⓘ  
4

Floating IP (direct server return) ⓘ  
Disabled



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:**

### Answer Area

Statements	Yes	No
VM1 is in the same availability set as VM2.	<input type="radio"/>	<input type="radio"/>
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	<input type="radio"/>	<input type="radio"/>
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

## Answer Area

Statements	Yes	No
VM1 is in the same availability set as VM2.	<input checked="" type="radio"/>	<input type="radio"/>
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	<input checked="" type="radio"/>	<input type="radio"/>
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	<input type="radio"/>	<input checked="" type="radio"/>

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: Yes

A Basic Load Balancer supports virtual machines in a single availability set or virtual machine scale set.

Box 2: Yes

When using load-balancing rules with Azure Load Balancer, you need to specify health probes to allow Load Balancer to detect the backend endpoint status. The configuration of the health probe and probe responses determine which backend pool instances will receive new flows. You can use health probes to detect the failure of an application on a backend endpoint. You can also generate a custom response to a health probe and use the health probe for flow control to manage load or planned downtime. When a health probe fails, Load Balancer will stop sending new flows to the respective unhealthy instance. Outbound connectivity is not impacted, only inbound connectivity is impacted.

Box 3: No



Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/skus>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>

## QUESTION 56

HOTSPOT

You have an Azure virtual machine named VM1 that connects to a virtual network named VNet1. VM1 has the following configurations:

- Subnet: 10.0.0.0/24
- Availability set: AVSet
- Network security group (NSG): None
- Private IP address: 10.0.0.4 (dynamic)
- Public IP address: 40.90.219.6 (dynamic)

You deploy a standard, Internet-facing load balancer named slb1.

You need to configure slb1 to allow connectivity to VM1.

Which changes should you apply to VM1 as you configure slb1? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

### Answer Area

Before you create a backend pool on slb1, you must:

- Create and assign an NSG to VM1
- Remove the public IP address from VM1
- Change the private IP address of VM1 to static

Before you can connect to VM1 from slb1, you must:

- Create and configure an NSG
- Remove the public IP address from VM1
- Change the private IP address of VM1 to static

**Correct Answer:**

### Answer Area

Before you create a backend pool on slb1, you must:

- Create and assign an NSG to VM1
- Remove the public IP address from VM1
- Change the private IP address of VM1 to static

Before you can connect to VM1 from slb1, you must:

- Create and configure an NSG
- Remove the public IP address from VM1
- Change the private IP address of VM1 to static



**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Change the private IP address of VM1 to static

Box 1: Remove the public IP address from VM1

Note: A public load balancer can provide outbound connections for virtual machines (VMs) inside your virtual network. These connections are accomplished by translating their private IP addresses to public IP addresses. Public Load Balancers are used to load balance internet traffic to your VMs.

Box 2: Create and configure an NSG

NSGs are used to explicitly permit allowed traffic. If you do not have an NSG on a subnet or NIC of your virtual machine resource, traffic is not allowed to reach this resource.

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-overview>

### QUESTION 57

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

Name	Type	Location
VNET1	Virtual network	East US
IP1	Public IP address	West Europe
RT1	Route table	North Europe

You need to create a network interface named NIC1.

In which location can you create NIC1?

- A. East US and North Europe only
- B. East US only
- C. East US, West Europe, and North Europe
- D. East US and West Europe only

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Before creating a network interface, you must have an existing virtual network in the same location and subscription you create a network interface in.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

#### QUESTION 58

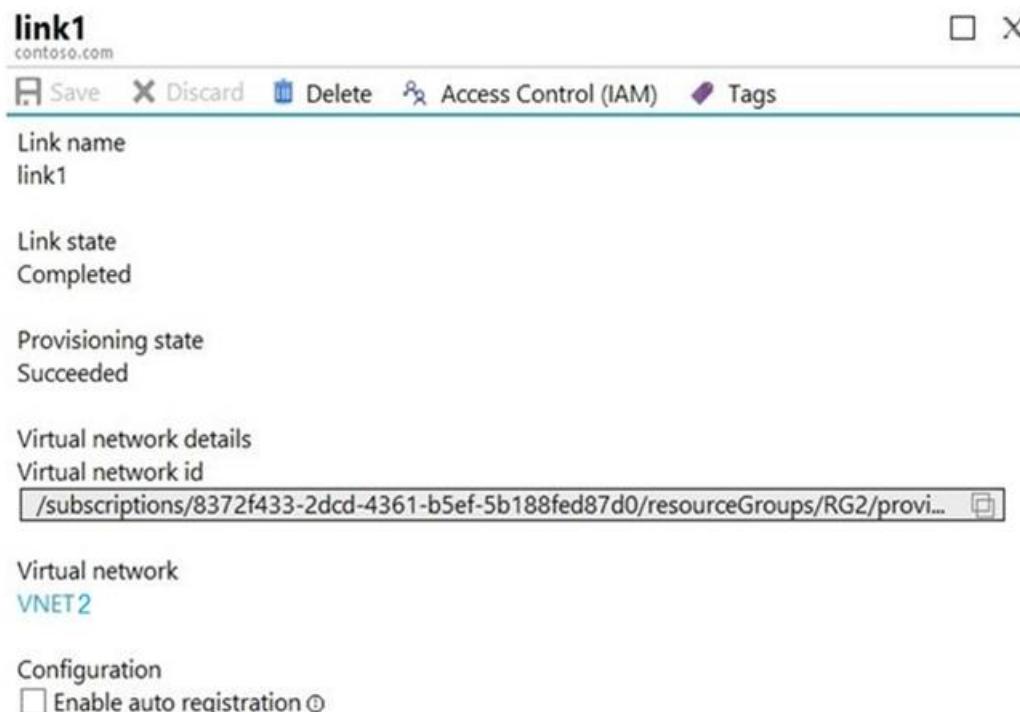
You have Azure virtual machines that run Windows Server 2019 and are configured as shown in the following table.

Name	Virtual network name	DNS suffix configured in Windows Server
VM1	VNET1	Contoso.com
VM2	VNET2	Contoso.com



You create a public Azure DNS zone named adatum.com and a private Azure DNS zone named contoso.com.

For contoso.com, you create a virtual network link named link1 as shown in the exhibit. (Click the **Exhibit** tab.)



link1  
contoso.com

Save Discard Delete Access Control (IAM) Tags

Link name: link1

Link state: Completed

Provisioning state: Succeeded

Virtual network details

Virtual network id: /subscriptions/8372f433-2dcd-4361-b5ef-5b188fed87d0/resourceGroups/RG2/provi...

Virtual network: VNET2

Configuration

Enable auto registration

You discover that VM1 can resolve names in contoso.com but **cannot** resolve names in adatum.com. VM1 can resolve other hosts on the Internet.

You need to ensure that VM1 can resolve host names in adatum.com.

What should you do?

- A. Update the DNS suffix on VM1 to be adatum.com
- B. Configure the name servers for adatum.com at the domain registrar
- C. Create an SRV record in the contoso.com zone
- D. Modify the Access control (IAM) settings for link1

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

If you use Azure Provided DNS then appropriate DNS suffix will be automatically applied to your virtual machines. For all other options you must either use Fully Qualified Domain Names (FQDN) or manually apply appropriate DNS suffix to your virtual machines.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances>

#### QUESTION 59

HOTSPOT

You plan to use Azure Network Watcher to perform the following tasks:

- Task1: Identify a security rule that prevents a network packet from reaching an Azure virtual machine.
- Task2: Validate outbound connectivity from an Azure virtual machine to an external host.

Which feature should you use for each task? To answer, select the appropriate options in the answer area.



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

**Hot Area:**

#### Answer Area

Task1:

IP flow verify
Next hop
Packet capture
Security group view
Traffic Analytics

Task2:

Connection troubleshoot
IP flow verify
Next hop
NSG flow logs
Traffic Analytics

**Correct Answer:**

## Answer Area

Task1:

IP flow verify
Next hop
Packet capture
Security group view
Traffic Analytics

Task2:

Connection troubleshoot
IP flow verify
Next hop
NSG flow logs
Traffic Analytics

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: IP flow verify

At some point, a VM may become unable to communicate with other resources, because of a security rule. The IP flow verify capability enables you to specify a source and destination IPv4 address, port, protocol (TCP or UDP), and traffic direction (inbound or outbound). IP flow verify then tests the communication and informs you if the connection succeeds or fails. If the connection fails, IP flow verify tells you which.

Box 2: Connection troubleshoot

Diagnose outbound connections from a VM: The connection troubleshoot capability enables you to test a connection between a VM and another VM, an FQDN, a URI, or an IPv4 address. The test returns similar information returned when using the connection monitor capability, but tests the connection at a point in time, rather than monitoring it over time, as connection monitor does. Learn more about how to troubleshoot connections using connection-troubleshoot.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview>

### QUESTION 60

HOTSPOT

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

Name	Operating system	Subnet	Virtual network
VM1	Windows Server 2019	Subnet1	VNET1
VM2	Windows Server 2019	Subnet2	VNET1
VM3	Red Hat Enterprise Linux 7.7	Subnet3	VNET1

You configure the network interfaces of the virtual machines to use the settings shown in the following table.

Name	DNS server
VM1	None
VM2	192.168.10.15
VM3	192.168.10.15

From the settings of VNET1 you configure the DNS servers shown in the following exhibit.

**DNS servers** ⓘ

- Default (Azure-provided)  
 Custom

193.77.134.10	***
Add DNS ser	
***	

The virtual machines can successfully connect to the DNS server that has an IP address of 192.168.10.15 and the DNS server that has an IP address of 193.77.134.10.

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:**
**Answer Area**

Statements	Yes	No
VM1 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input type="radio"/>
VM2 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input type="radio"/>
VM3 connects to 192.168.10.15 for DNS queries.	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**
**Answer Area**

Statements	Yes	No
VM1 connects to 193.77.134.10 for DNS queries.	<input checked="" type="radio"/>	<input type="radio"/>
VM2 connects to 193.77.134.10 for DNS queries.	<input type="radio"/>	<input checked="" type="radio"/>
VM3 connects to 192.168.10.15 for DNS queries.	<input checked="" type="radio"/>	<input type="radio"/>

**Section: (none)**
**Explanation**
**Explanation/Reference:**

Explanation:

Box 1: Yes

You can specify DNS server IP addresses in the VNet settings. The setting is applied as the default DNS server(s) for all VMs in the VNet.

Box 2: No

You can set DNS servers per VM or cloud service to override the default network settings.

## Box 3: Yes

You can set DNS servers per VM or cloud service to override the default network settings.

## Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-faq#name-resolution-dns>

**QUESTION 61**

## HOTSPOT

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

Name	Lock name	Lock type
RG1	None	None
RG2	Lock	Delete

RG1 contains the resources shown in the following table.

Name	Type	Lock name	Lock type
storage2	Storage account	Lock1	Delete
VNET2	Virtual network	Lock2	Read-only
IP2	Public IP address	None	None

You need to identify which resources you can move from RG1 to RG2, and which resources you can move from RG2 to RG1.

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

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

**Hot Area:**

Answer Area



Resources that you can move from RG1 to RG2:

▼

None
IP1 only
IP1 and storage1 only
IP1 and VNET1 only
IP1, VNET2, and storage1

Resources that you can move from RG2 to RG1:

▼

None
IP2 only
IP2 and storage2 only
IP2 and VNET2 only
IP2, VNET2, and storage2

**Correct Answer:**

## Answer Area

Resources that you can move from RG1 to RG2:

None
IP1 only
IP1 and storage1 only
IP1 and VNET1 only
IP1, VNET2, and storage1

Resources that you can move from RG2 to RG1:

None
IP2 only
IP2 and storage2 only
IP2 and VNET2 only
IP2, VNET2, and storage2

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: IP1, Storage1

IP addresses and storage accounts can be moved.

Virtual networks cannot be moved.

There is no lock on RG1.

Box 2: None

There is a delete lock on RG2.

Note: When you apply a lock at a parent scope, all resources within that scope inherit the same lock. Even resources you add later inherit the lock from the parent. The most restrictive lock in the inheritance takes precedence.

CanNotDelete means authorized users can still read and modify a resource, but they can't delete the resource.

ReadOnly means authorized users can read a resource, but they can't delete or update the resource. Applying this lock is similar to restricting all authorized users to the permissions granted by the Reader role.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources>

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-support-resources>

### QUESTION 62

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

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

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

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running



You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard
- Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create a Basic SKU public IP address, associate the address to the network interface of VM1, and then start VM1.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A Backend Pool configured by IP address has the following limitations:

- Standard load balancer only

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

### QUESTION 63

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

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

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

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard
- Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create a Standard SKU public IP address, associate the address to the network interface of VM1, and then stop VM2.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A Backend Pool configured by IP address has the following limitations:

- Standard load balancer only

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

**QUESTION 64**

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

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

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

Name	Public IP SKU	Connected to	Status
VM1	None	VNET1/Subnet1	Stopped (deallocated)
VM2	Basic	VNET1/Subnet2	Running

You deploy a load balancer that has the following configurations:

- Name: LB1
- Type: Internal
- SKU: Standard
- Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You create two Standard public IP addresses and associate a Standard SKU public IP address to the network interface of each virtual machine.



Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

A Backend Pool configured by IP address has the following limitations:

- Standard load balancer only

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/backend-pool-management>

**QUESTION 65**

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

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

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: You export the client certificate from Computer1 and install the certificate on Computer2.

Does this meet the goal?

- A. Yes
- B. No

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed. You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

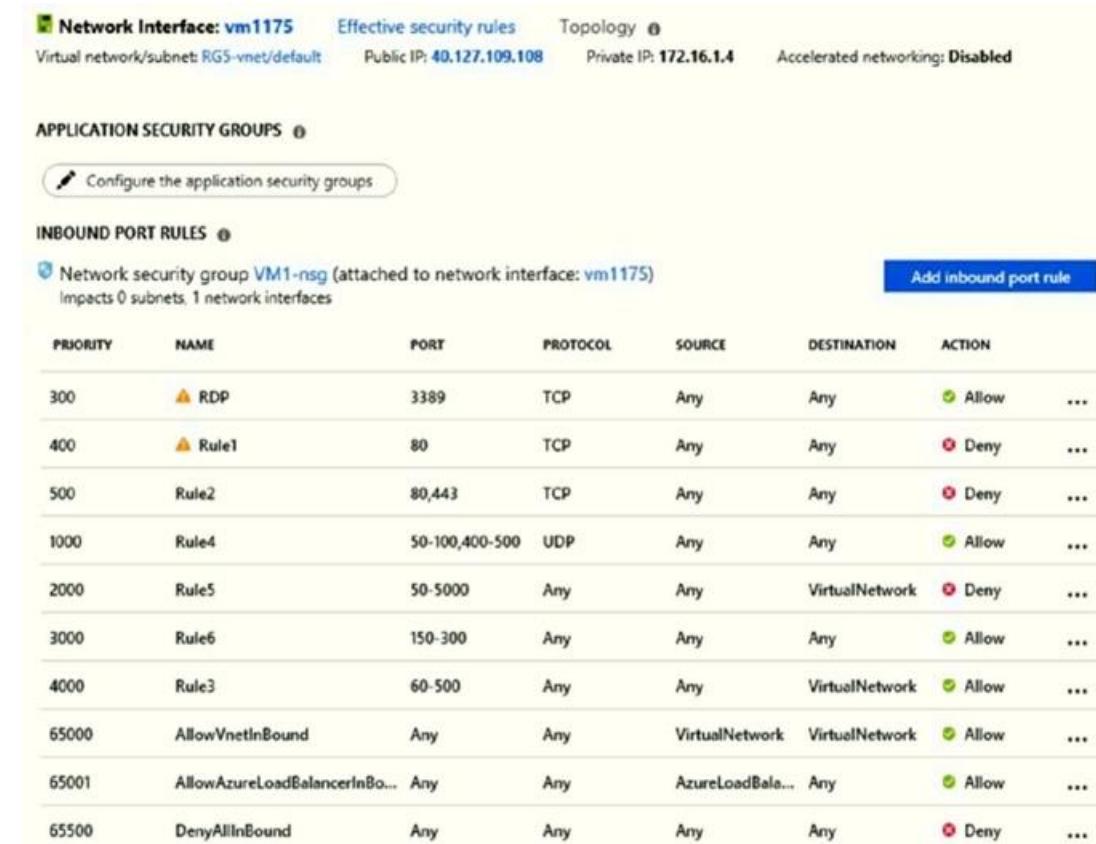
Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

### QUESTION 66

You have an Azure virtual machine named VM1.

The network interface for VM1 is configured as shown in the exhibit. (Click the **Exhibit** tab.)



PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINATION	ACTION	
300	RDP	3389	TCP	Any	Any	<input checked="" type="radio"/> Allow	...
400	Rule1	80	TCP	Any	Any	<input checked="" type="radio"/> Deny	...
500	Rule2	80,443	TCP	Any	Any	<input checked="" type="radio"/> Deny	...
1000	Rule4	50-100,400-500	UDP	Any	Any	<input checked="" type="radio"/> Allow	...
2000	Rule5	50-5000	Any	Any	VirtualNetwork	<input checked="" type="radio"/> Deny	...
3000	Rule6	150-300	Any	Any	Any	<input checked="" type="radio"/> Allow	...
4000	Rule3	60-500	Any	Any	VirtualNetwork	<input checked="" type="radio"/> Allow	...
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<input checked="" type="radio"/> Allow	...
65001	AllowAzureLoadBalancerInBo...	Any	Any	AzureLoadBal...	Any	<input checked="" type="radio"/> Allow	...
65500	DenyAllInBound	Any	Any	Any	Any	<input checked="" type="radio"/> Deny	...



You deploy a web server on VM1, and then create a secure website that is accessible by using the HTTPS protocol. VM1 is used as a web server only.

You need to ensure that users can connect to the website from the Internet.

What should you do?

- A. Modify the protocol of Rule4
- B. Delete Rule1

C. For Rule5, change the Action to **Allow** and change the priority to **401**

D. Modify the action of Rule1

**Correct Answer:** C

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

HTTPS uses port 443.

Rule2, with priority 500, denies HTTPS traffic.

Rule5, with priority changed from 2000 to 401, would allow HTTPS traffic.

Note: Priority is a number between 100 and 4096. Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. As a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview>



## 02 - Configure and manage virtual networking

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the P1 pricing tier.

#### Existing Environment

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the **department** attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

#### Requirements

## Planned Changes

Litware plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

## Technical Requirements

Litware must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

A.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**



## QUESTION 2

HOTSPOT

You need to meet the connection requirements for the New York office.

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

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

**Hot Area:**

### Answer Area

From the Azure portal:

Create an ExpressRoute circuit only.
Create a virtual network gateway only.
Create a virtual network gateway and a local network gateway.
Create an ExpressRoute circuit and an on-premises data gateway.
Create a virtual network gateway and an on-premises data gateway.

In the New York office:

Deploy ExpressRoute.
Deploy a DirectAccess server.
Implement a Web Application Proxy.
Configure a site-to-site VPN connection.

**Correct Answer:**

### Answer Area

From the Azure portal:

- |  |
|--|
| Create an ExpressRoute circuit only.                                 |
| Create a virtual network gateway only.                               |
| <b>Create a virtual network gateway and a local network gateway.</b> |
| Create an ExpressRoute circuit and an on-premises data gateway.      |
| Create a virtual network gateway and an on-premises data gateway.    |

In the New York office:

- |   |
|---|
| Deploy ExpressRoute.                            |
| Deploy a DirectAccess server.                   |
| Implement a Web Application Proxy.              |
| <b>Configure a site-to-site VPN connection.</b> |

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

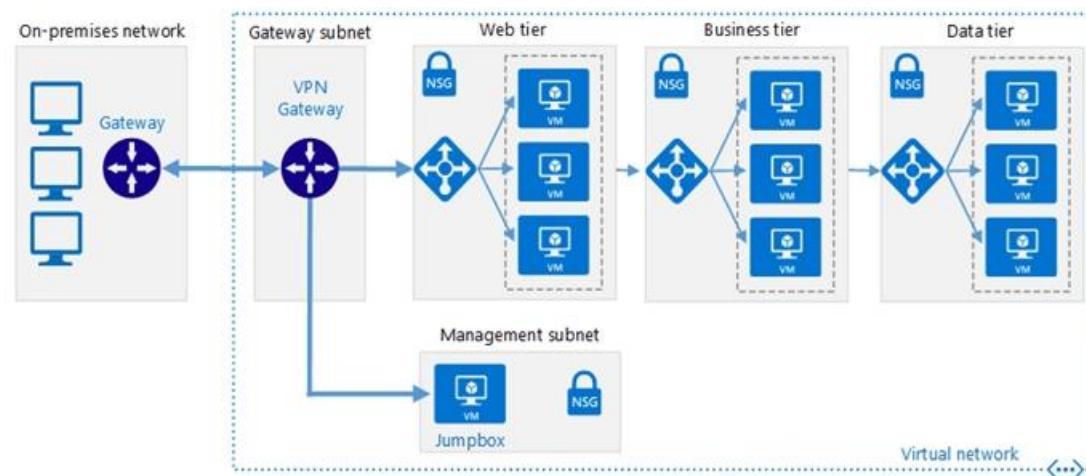
Box 1: Create a virtual network gateway and a local network gateway.

Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

- Virtual network gateway. A resource that provides a virtual VPN appliance for the VNet. It is responsible for routing traffic from the on-premises network to the VNet.
- Local network gateway. An abstraction of the on-premises VPN appliance. Network traffic from the cloud application to the on-premises network is routed through this gateway.
- Connection. The connection has properties that specify the connection type (IPSec) and the key shared with the on-premises VPN appliance to encrypt traffic.
- Gateway subnet. The virtual network gateway is held in its own subnet, which is subject to various requirements, described in the Recommendations section below.

Box 2: Configure a site-to-site VPN connection

On premises create a site-to-site connection for the virtual network gateway and the local network gateway.



Scenario: Connect the New York office to VNet1 over the Internet by using an encrypted connection.

**Incorrect Answers:**

Azure ExpressRoute: Established between your network and Azure, through an ExpressRoute partner. This connection is private. Traffic does not go over the internet.

**Reference:**

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn>

## 03 - Configure and manage virtual networking

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

#### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- File servers
- Domain controllers
- Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

#### Requirements

#### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

#### Technical Requirements

Contoso must meet the following technical requirements:

- Move all the virtual machines for App1 to Azure.
- Minimize the number of open ports between the App1 tiers.
- Ensure that all the virtual machines for App1 are protected by backups.
- Copy the blueprint files to Azure over the Internet.
- Ensure that the blueprint files are stored in the archive storage tier.
- Ensure that partner access to the blueprint files is secured and temporary.



- Prevent user passwords or hashes of passwords from being stored in Azure.
- Use unmanaged standard storage for the hard disks of the virtual machines.
- Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
- Minimize administrative effort whenever possible.

#### User Requirements

Contoso identifies the following requirements for users:

- Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- Designate a new user named Admin1 as the service admin for the Azure subscription.
- Admin1 must receive email alerts regarding service outages.
- Ensure that a new user named User3 can create network objects for the Azure subscription.

A.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

#### QUESTION 2

HOTSPOT

You need to recommend a solution for App1. The solution must meet the technical requirements.

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

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



#### Answer Area

Number of virtual networks:

1	▼
2	▼
3	▼

Number of subnets per virtual network:

1	▼
2	▼
3	▼

**Correct Answer:**

## Answer Area

Number of virtual networks:

1
2
3

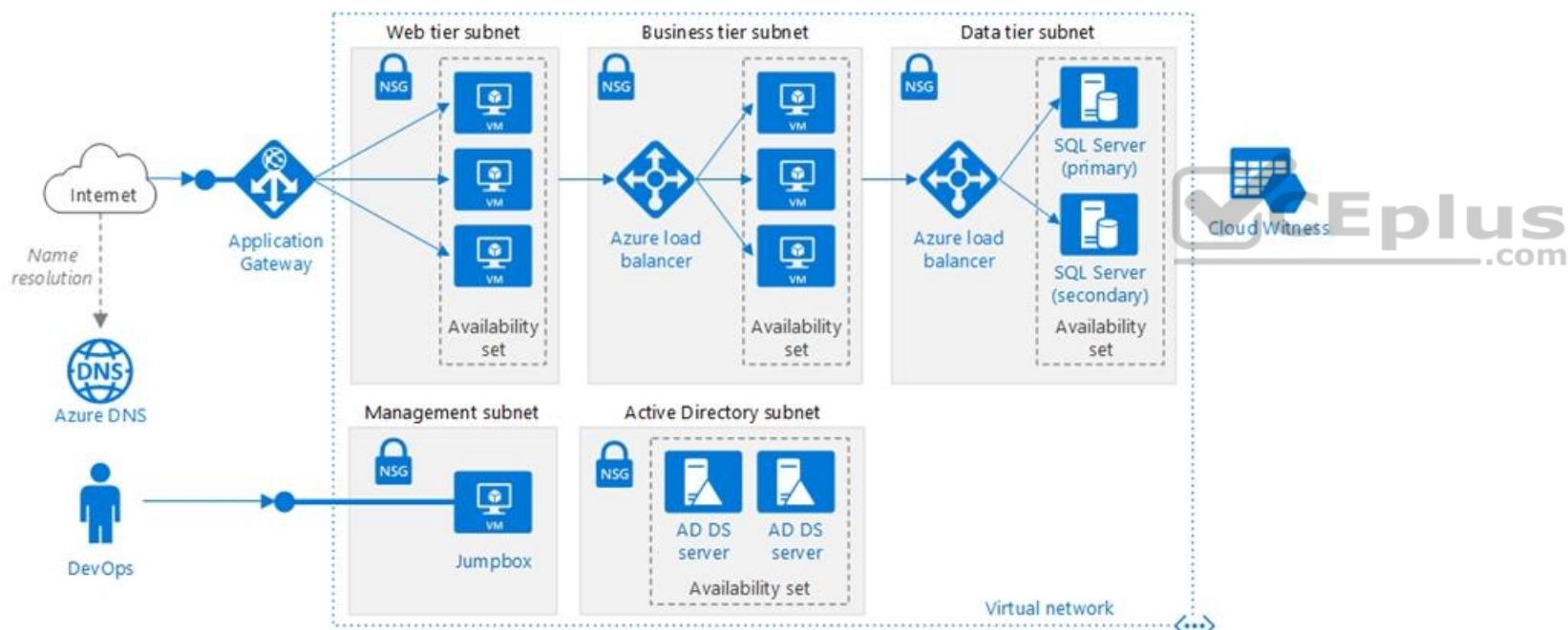
Number of subnets per virtual network:

1
2
3

**Section:** (none)  
**Explanation:**

**Explanation/Reference:**  
**Explanation:**

This reference architecture shows how to deploy VMs and a virtual network configured for an N-tier application, using SQL Server on Windows for the data tier.



**Scenario:** You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Technical requirements include:

- Move all the virtual machines for App1 to Azure.
- Minimize the number of open ports between the App1 tiers.

**Reference:**

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/n-tier/n-tier-sql-server>

## QUESTION 3

You are planning the move of App1 to Azure.

You create a network security group (NSG).

You need to recommend a solution to provide users with access to App1.

What should you recommend?

- A. Create an incoming security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- B. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- C. Create an incoming security rule for port 443 from the Internet. Associate the NSG to all the subnets.
- D. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to all the subnets.

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Incoming and the web server subnet only, as users access the web front end by using HTTPS only.

Note Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.



## 01 - Monitor and back up Azure resources

### QUESTION 1

You have an Azure web app named webapp1.

Users report that they often experience HTTP 500 errors when they connect to webapp1.

You need to provide the developers of webapp1 with real-time access to the connection errors. The solution must provide all the connection error details.

What should you do first?

- A. From webapp1, enable Web server logging
- B. From Azure Monitor, create a workbook
- C. From Azure Monitor, create a Service Health alert
- D. From webapp1, turn on Application Logging

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

### QUESTION 2

You have an Azure subscription that has a Recovery Services vault named Vault1. The subscription contains the virtual machines shown in the following table:

Name	Operating system	Auto-shutdown
VM1	Windows Server 2012 R2	Off
VM2	Windows Server 2016	19:00
VM3	Ubuntu Server 18.04 LTS	Off
VM4	Windows 10	19:00

You plan to schedule backups to occur every night at 23:00.

Which virtual machines can you back up by using Azure Backup?

- A. VM1 and VM3 only
- B. VM1, VM2, VM3 and VM4
- C. VM1 and VM2 only
- D. VM1 only

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Azure Backup supports backup of 64-bit Windows server operating system from Windows Server 2008.

Azure Backup supports backup of 64-bit Windows 10 operating system.

Azure Backup supports backup of 64-bit Ubuntu Server operating system from Ubuntu 12.04.

Azure Backup supports backup of VM that are shutdown or offline.

Reference: <https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix-iaas> <https://docs.microsoft.com/en-us/azure/virtual-machines/linux/endorsed-distros>

### QUESTION 3

You have the Azure virtual machines shown in the following table:



Name	Azure region
VM1	West Europe
VM2	West Europe
VM3	North Europe
VM4	North Europe

You have a Recovery Services vault that protects VM1 and VM2.

You need to protect VM3 and VM4 by using Recovery Services.

What should you do first?

- A. Create a new Recovery Services vault
- B. Create a storage account
- C. Configure the extensions for VM3 and VM4
- D. Create a new backup policy

**Correct Answer:** A

**Section:** (none)

**Explanation**

**Explanation/Reference:**

A Recovery Services vault is a storage entity in Azure that houses data. The data is typically copies of data, or configuration information for virtual machines (VMs), workloads, servers, or workstations. You can use Recovery Services vaults to hold backup data for various Azure services

Reference: <https://docs.microsoft.com/en-us/azure/site-recovery/azure-to-azure-tutorial-enable-replicatio>

**QUESTION 4**

HOTSPOT

You create a Recovery Services vault backup policy named Policy1 as shown in the following exhibit:



**Policy1**
Associated items Delete Save Discard
**Backup schedule**

\* Frequency   \* Time   \* Timezone

**Retention range**
 Retention of daily backup point

\* At      For  
  Day(s)

 Retention of weekly backup point

\* On      \* At      For  
   Week(s)

 Retention of monthly backup point

Week Based Day Based

\* On      \* At      For  
   Month(s)

 Retention of yearly backup point

Week Based Day Based

\* In      \* On      \* At      For  
    Year(s)



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

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

**Hot Area:**

**Answer Area**

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

30 days
10 weeks
36 months
10 years

**Correct Answer:**

## Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

Section: (none)

Explanation

Explanation/Reference:

Explanation:

Box 1: 10 years

The yearly backup point occurs to 1 March and its retention period is 10 years.

Box 2: 36 months

The monthly backup point occurs on the 1st of every month and its retention period is 36 months.



### QUESTION 5

HOTSPOT

You have an Azure subscription that contains an Azure Storage account named storage1 and the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group1

You plan to monitor storage1 and to configure email notifications for the signals shown in the following table.

Name	Type	Users to notify
Ingress	Metric	User1 and User3 only
Egress	Metric	User1 only
Delete storage account	Activity log	User1, User2, and User3
Restore blob ranges	Activity log	User1 and User3 only

You need to identify the minimum number of alert rules and action groups required for the planned monitoring.

How many alert rules and action groups should you identify? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

**Answer Area**

Alert rules:

	▼
1	
2	
3	
4	

Action groups:

	▼
1	
2	
3	
4	

**Correct Answer:****Answer Area**

Alert rules:



Action groups:

	▼
1	
2	
3	
4	

**Section: (none)****Explanation****Explanation/Reference:****QUESTION 6****HOTSPOT**

You have an Azure virtual machine named VM1 and a Recovery Services vault named Vault1.

You create a backup policy named Policy1 as shown in the exhibit. (Click the **Exhibit** tab.)

## Policy1

Associated items Delete Save Discard

Backup schedule

\* Frequency \* Time \* Timezone

Daily 2:00 AM (UTC) Coordinated Universal Time

### Retention range

Retention of daily backup point.

\* At For  
2:00 AM 5 Day(s)

Retention of weekly backup point.

\* On \* At For  
Sunday 2:00 AM 20 Week(s)

Retention of monthly backup point.

Week Based Day Based

\* On \* At For  
2 2:00 AM 24 Month(s)



You configure the backup of VM1 to use Policy1 on Thursday, January 1.

You need to identify the number of available recovery points for VM1.

How many recovery points are available on January 8 and January 15? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

### Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

**Correct Answer:**

## Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

### Section: (none)

#### Explanation

#### Explanation/Reference:

Explanation:

Box 1: 6

5 latest daily recovery points, which includes the weekly backup from the previous Sunday, plus the monthly recovery point.

Box 2: 8

5 latest daily recovery points, plus two weekly backups, plus the monthly recovery point.

Reference:

<https://social.technet.microsoft.com/Forums/en-US/854ab6ae-79aa-4bad-ac65-471c4d422e94/daily-monthly-yearly-recovery-points-and-storage-used?forum=windowsazureonlinebackup>



## QUESTION 7

### HOTSPOT

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains the users shown in the following table.

Name	Member of	Role assigned
User1	Group1	<i>None</i>
User2	Group2	<i>None</i>
User3	Group1, Group2	User administrator

You enable password reset for contoso.onmicrosoft.com as shown in the Password Reset exhibit. (Click the **Password Reset** tab.)

Self service password reset enabled ⓘ

None  Selected  All

---

Select group >

Group2

**i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

You configure the authentication methods for password reset as shown in the Authentication Methods exhibit. (Click the **Authentication Methods** tab.)

Number of methods required to reset ⓘ

1	2
---	---

Methods available to users

- Mobile app notification
- Mobile app code
- Email
- Mobile phone
- Office phone
- Security questions

Number of questions required to register ⓘ

3	4	5
---	---	---

Number of questions required to reset ⓘ

3	4	5
---	---	---

Select security questions &gt;

10 security questions selected

**i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.



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:****Answer Area**

Statements	Yes	No
After User2 answers three security questions, he can reset his password immediately.	<input type="radio"/>	<input type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input type="radio"/>
User3 can add security questions to the password reset process	<input type="radio"/>	<input type="radio"/>

**Correct Answer:**

### Answer Area

Statements	Yes	No
After User2 answers three security questions, he can reset his password immediately.	<input type="radio"/>	<input checked="" type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input checked="" type="radio"/>
User3 can add security questions to the password reset process	<input checked="" type="radio"/>	<input type="radio"/>

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: No

Two methods are required.

Box 2: No

Self-service password reset is only enabled for Group2, and User1 is not a member of Group2.

Box 3: Yes

As a User Administrator, User3 can add security questions to the reset process.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/quickstart-sspr>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/active-directory-passwords-faq>



### QUESTION 8

Your company has a main office in London that contains 100 client computers.

Three years ago, you migrated to Azure Active Directory (Azure AD).

The company's security policy states that all personal devices and corporate-owned devices must be registered or joined to Azure AD.

A remote user named User1 is unable to join a personal device to Azure AD from a home network.

You verify that User1 was able to join devices to Azure AD in the past.

You need to ensure that User1 can join the device to Azure AD.

What should you do?

- A. Assign the User administrator role to User1.
- B. From the Device settings blade, modify the **Maximum number of devices per user** setting.
- C. Create a point-to-site VPN from the home network of User1 to Azure.
- D. From the Device settings blade, modify the **Users may join devices to Azure AD** setting.

**Correct Answer:** B

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

The Maximum number of devices setting enables you to select the maximum number of devices that a user can have in Azure AD. If a user reaches this quota, they will not be able to add additional devices until one or more of the existing

devices are removed.

Incorrect Answers:

C: Azure AD Join enables users to join their devices to Active Directory from anywhere as long as they have connectivity with the Internet.

D: The Users may join devices to Azure AD setting enables you to select the users who can join devices to Azure AD. Options are All, Selected and None. The default is All.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/device-management-azure-portal>

<http://techgenix.com/pros-and-cons-azure-ad-join/>

#### QUESTION 9

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

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

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User1 to create the user accounts.

Does that meet the goal?

A. Yes

B. No

**Correct Answer: A**

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Only a global administrator can add users to this tenant.

Reference:

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

#### QUESTION 10

You have an existing Azure subscription that contains 10 virtual machines.

You need to monitor the latency between your on-premises network and the virtual machines.

What should you use?

A. Service Map

B. Connection troubleshoot

C. Network Performance Monitor

D. Effective routes



**Correct Answer:** C  
**Section:** (none)  
**Explanation**

**Explanation/Reference:**

**Explanation:**  
Network Performance Monitor is a cloud-based hybrid network monitoring solution that helps you monitor network performance between various points in your network infrastructure. It also helps you monitor network connectivity to service and application endpoints and monitor the performance of Azure ExpressRoute.

You can monitor network connectivity across cloud deployments and on-premises locations, multiple data centers, and branch offices and mission-critical multitier applications or microservices. With Performance Monitor, you can detect network issues before users complain.

**Reference:**  
<https://docs.microsoft.com/en-us/azure/azure-monitor/insights/network-performance-monitor>

**QUESTION 11**  
DRAG DROP

You have an Azure Linux virtual machine that is protected by Azure Backup.

One week ago, two files were deleted from the virtual machine.

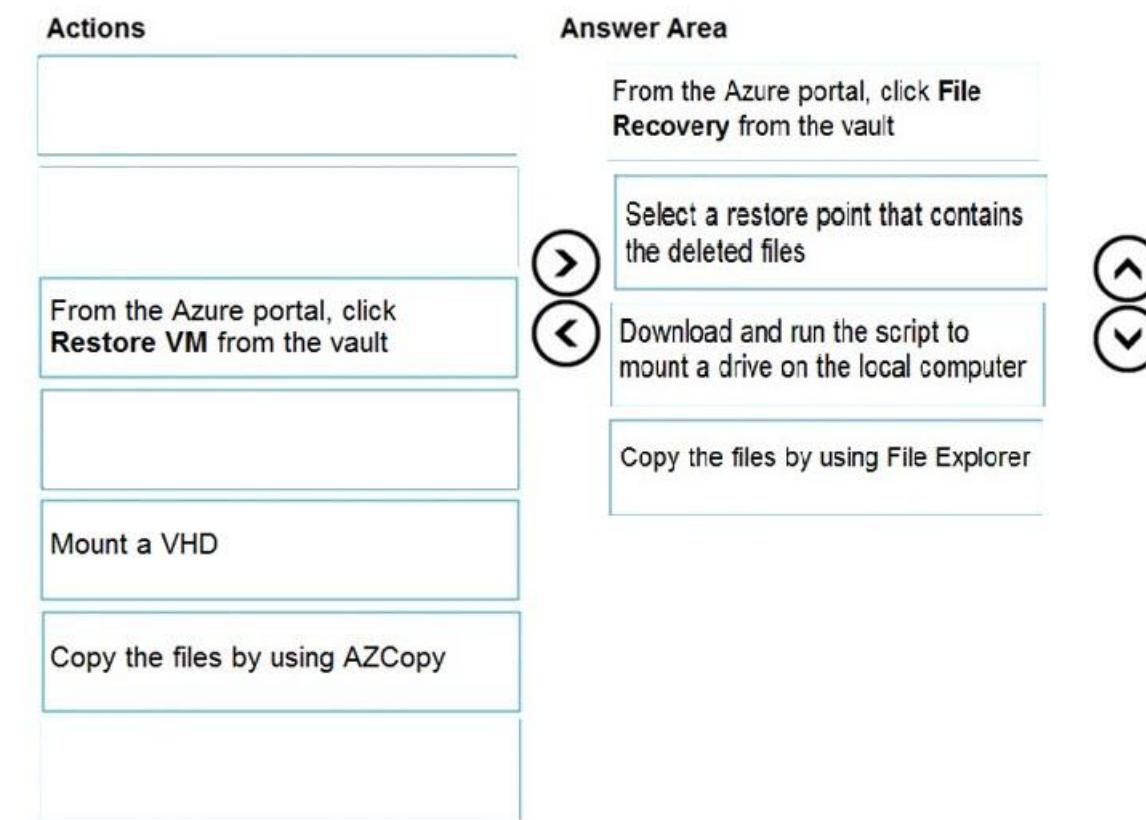
You need to restore the deleted files to an on-premises Windows Server 2016 computer as quickly as possible.

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
Download and run the script to mount a drive on the local computer	
Select a restore point that contains the deleted files	 
From the Azure portal, click <b>Restore VM from the vault</b>	
From the Azure portal, click <b>File Recovery</b> from the vault	
Mount a VHD	
Copy the files by using AZCopy	
Copy the files by using File Explorer	

**Correct Answer:**


**Section: (none)**
**Explanation**
**Explanation/Reference:**

Explanation:

Step 1: From the Azure portal, click File Recovery from the vault

Step 2. Select a restore point that contains the deleted files

Step 3: Download and run the script to mount a drive on the local computer

Generate and download script to browse and recover files:

Step 4: Copy the files using File Explorer!

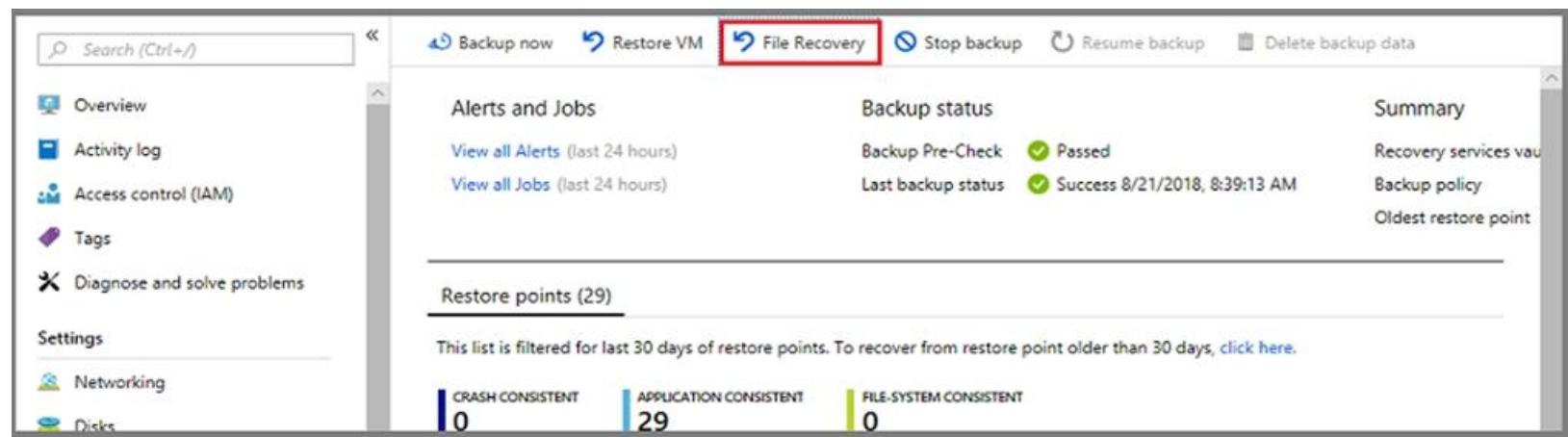
After the disks are attached, use Windows File Explorer to browse the new volumes and files. The restore files functionality provides access to all files in a recovery point. Manage the files via File Explorer as you would for normal files.

Step 1-3 below:

To restore files or folders from the recovery point, go to the virtual machine and perform the following steps:

1. Sign in to the Azure portal and in the left pane, select Virtual machines. From the list of virtual machines, select the virtual machine to open that virtual machine's dashboard.
2. In the virtual machine's menu, select Backup to open the Backup dashboard.
3. In the Backup dashboard menu, select File Recovery.





The screenshot shows the Azure Backup service interface. At the top, there's a navigation bar with options: Backup now, Restore VM, File Recovery (which is highlighted with a red box), Stop backup, Resume backup, and Delete backup data. Below the navigation bar is a sidebar with links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Settings, Networking, and Disks. The main content area has sections for Alerts and Jobs, Backup status, and Summary. Under Alerts and Jobs, there are links to View all Alerts (last 24 hours) and View all Jobs (last 24 hours). Under Backup status, it shows a Backup Pre-Check status of Passed and a Last backup status of Success 8/21/2018, 8:39:13 AM. Under Summary, there are links to Recovery services vault, Backup policy, and Oldest restore point. A section titled "Restore points (29)" follows, with a note that the list is filtered for the last 30 days. It shows three categories: CRASH CONSISTENT (0), APPLICATION CONSISTENT (29), and FILE-SYSTEM CONSISTENT (0).

The File Recovery menu opens.

## File Recovery

myvmh1

### ✓ Step 1: Select recovery point

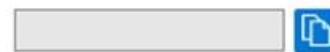
8/2/2020, 11:31:09 AM [Latest] (Cras... ▾)

### → Step 2: Download script to browse and recover files

This script will mount the disks from the selected recovery point **as local drives on the machine where it is run**. These drives will remain mounted for 12 hours.

[Download Script \\*](#)

Requires password to run



### → Step 3: Unmount the disks after recovery

Unmount disks and close the connection to the recovery point.

[Unmount Disks](#)

\* Run this script on the machine where you want to copy the files

\* To restore files larger than 10GB, restore entire VM to an alternate location or restore disks using PowerShell

\* Data transfer rate: up to 1GB/Hr

If you have trouble finding your files,  
[click here](#)



4. From the Select recovery point drop-down menu, select the recovery point that holds the files you want. By default, the latest recovery point is already selected.

5. Select Download Executable (for Windows Azure VMs) or Download Script (for Linux Azure VMs, a python script is generated) to download the software used to copy files from the recovery point.

Running the script and identifying volumes:

For Linux machines, a python script is generated. Download the script and copy it to the relevant/compatible Linux server.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-restore-files-from-vm>

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-automation#restore-files-from-an-azure-vm-backup>

**QUESTION 12**  
HOTSPOT

You purchase a new Azure subscription named Subscription1.

You create a virtual machine named VM1 in Subscription1. VM1 is not protected by Azure Backup.

You need to protect VM1 by using Azure Backup. Backups must be created at 01:00 and stored for 30 days.

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

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

**Hot Area:**

**Answer Area**

Location in which to store the backups:

A blob container
A file share
A Recovery Services vault
A storage account

Object to use to configure the protection for VM1:

A backup policy
A batch job
A batch schedule
A recovery plan

**Correct Answer:**

**Answer Area**

Location in which to store the backups:

A blob container
A file share
<b>A Recovery Services vault</b>
A storage account

Object to use to configure the protection for VM1:

<b>A backup policy</b>
A batch job
A batch schedule
A recovery plan

**Section: (none)**

**Explanation**

**Explanation/Reference:**

Explanation:

Box 1: A Recovery Services vault

You can set up a Recovery Services vault and configure backup for multiple Azure VMs.

Box 2: A backup policy

In Choose backup policy, do one of the following:

- Leave the default policy. This backs up the VM once a day at the time specified, and retains backups in the vault for 30 days.

- Select an existing backup policy if you have one.
- Create a new policy, and define the policy settings.

Reference:  
<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm>

#### QUESTION 13

You have an Azure virtual machine named VM1.

Azure collects events from VM1.

You are creating an alert rule in Azure Monitor to notify an administrator when an error is logged in the System event log of VM1.

Which target resource should you monitor in the alert rule?

- A. virtual machine extension
- B. virtual machine
- C. metric alert
- D. Azure Log Analytics workspace

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

For the first step to create the new alert rule, under the Create Alert section, you are going to select your Log Analytics workspace as the resource, since this is a log based alert signal.

Reference:

<https://docs.microsoft.com/en-us/windows-server/storage/storage-spaces/configure-azure-monitor>



#### QUESTION 14

You have an Azure subscription that contains 100 virtual machines.

You regularly create and delete virtual machines.

You need to identify unattached disks that can be deleted.

What should you do?

- A. From Azure Cost Management, view Cost Analysis
- B. From Azure Advisor, modify the Advisor configuration
- C. From Microsoft Azure Storage Explorer, view the Account Management properties
- D. From Azure Cost Management, view Advisor Recommendations

**Correct Answer:** D

**Section:** (none)

**Explanation**

**Explanation/Reference:**

Explanation:

From Home → Cost Management + Billing → Cost Management, scroll down on the options and select View Recommendations:

Home > Cost Management + Billing >

**Cost Management:** [Redacted] Over... X

Subscription

Search (Ctrl+ /) Try preview Go to Cloudyn Help

**Overview** (Selected)

Access control  
Diagnose and solve problems

**Cost Management**

- Cost analysis
- Cost alerts
- Budgets
- Advisor recommendations
- Cloudyn

**Products + services**

- Azure subscriptions
- Azure reservations

**Settings**

- Configuration
- Exports
- Connectors for AWS (Preview)

**Support + troubleshooting**

Analyze cloud costs  
Break down and analyze costs to identify anomalies and drive a deeper understanding of cost and usage patterns.  
Learn more

Monitor with budgets  
Create a budget to control costs and configure alerts to warn teams about impending budget overages.  
Learn more

**Open cost analysis** **Create budget**



**Optimize with recommendations**  
View Advisor recommendations to identify unused or underutilized resources. Take action to reduce waste.  
Learn more

**View recommendations** (button circled in red)



#### Azure Cost Management / Advisor

From here you will see the recommendations for your subscription, if you have orphaned disks, they will be listed.

Reference:

<https://codeserendipity.com/2020/07/08/microsoft-azure-find-unattached-disks-that-can-be-deleted-and-other-recommendations/>

## 02 - Monitor and back up Azure resources

### QUESTION 1

#### Case study

This is a case study. **Case studies are not timed separately. You can use as much exam time as you would like to complete each case.** However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

#### To start the case study

To display the first question in this case study, click the **Next** button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an **All Information** tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the **Question** button to return to the question.

#### Overview

Litware, Inc. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named litware.onmicrosoft.com. The tenant uses the P1 pricing tier.

#### Existing Environment

The network contains an Active Directory forest named litware.com. All domain controllers are configured as DNS servers and host the litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the **department** attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private connections.

Litware has data centers in the Montreal and Seattle offices. Each office has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized. The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMware vCenter server	VM1
Server2	Hyper-V host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1 GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs)

#### Requirements

## Planned Changes

Litware plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named WebApp1 and WebApp2.

## Technical Requirements

Litware must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instances.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.litware.com.
- Connect the New York office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

A.

**Correct Answer:**

**Section: (none)**

**Explanation**

**Explanation/Reference:**



## QUESTION 2

HOTSPOT

You need to implement Role1.

Which command should you run before you create Role1? To answer, select the appropriate options in the answer area.

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

**Hot Area:**

Answer Area										
<table border="1"><tr><td>Find-RoleCapability</td></tr><tr><td>Get-AzureADDirectoryRole</td></tr><tr><td>Get-AzRoleDefinition</td></tr><tr><td>Get-AzResourceProvider</td></tr></table>	Find-RoleCapability	Get-AzureADDirectoryRole	Get-AzRoleDefinition	Get-AzResourceProvider	<table border="1"><tr><td>-Name "Reader"  </td></tr><tr><td>ConvertFrom-Json</td></tr><tr><td>ConvertFrom-String</td></tr><tr><td>ConvertTo-Json</td></tr><tr><td>ConvertTo-Xml</td></tr></table>	-Name "Reader"	ConvertFrom-Json	ConvertFrom-String	ConvertTo-Json	ConvertTo-Xml
Find-RoleCapability										
Get-AzureADDirectoryRole										
Get-AzRoleDefinition										
Get-AzResourceProvider										
-Name "Reader"										
ConvertFrom-Json										
ConvertFrom-String										
ConvertTo-Json										
ConvertTo-Xml										

**Correct Answer:**

**Answer Area**

Find-RoleCapability Get-AzureADDirectoryRole <b>Get-AzRoleDefinition</b> Get-AzResourceProvider	-Name "Reader"   ConvertFrom-Json ConvertFrom-String <b>ConvertTo-Json</b> ConvertTo-Xml
--	--

**Section: (none)****Explanation****Explanation/Reference:****QUESTION 3**

You need to recommend a solution to automate the configuration for the finance department users. The solution must meet the technical requirements.

What should you include in the recommendation?

- A. Azure AD B2C
- B. dynamic groups and conditional access policies
- C. Azure AD Identity Protection
- D. an Azure logic app and the Microsoft Identity Management (MIM) client

**Correct Answer: B****Section: (none)****Explanation****Explanation/Reference:**

Explanation:

Scenario: Ensure Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

The recommendation is to use conditional access policies that can then be targeted to groups of users, specific applications, or other conditions.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-userstates>