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Number: AZ-104
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Time Limit: 120 min
File Version: 7.0



## AZ-104

# **Microsoft Azure Administrator**

Version 7.0

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## Manage Azure identities and governance

### **Question Set 1**

### **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	or Azure Active Directory	
User2	Global administrator	lobal administrator Azure Active Directory	
User3	User administrator		
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:**

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 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 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		
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:

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 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 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:**

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 4**

**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 RG1
Owner on LB1

To add a health probe to LB2:

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

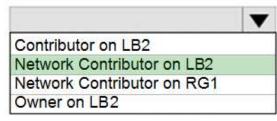
### **Correct Answer:**

## **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:



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 5**

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 6**

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. a Microsoft 365 group that uses the Assigned membership type
- B. a Security group that uses the Assigned membership type
- C. a Microsoft 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:**

Explanation:

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 7**

**HOTSPOT** 

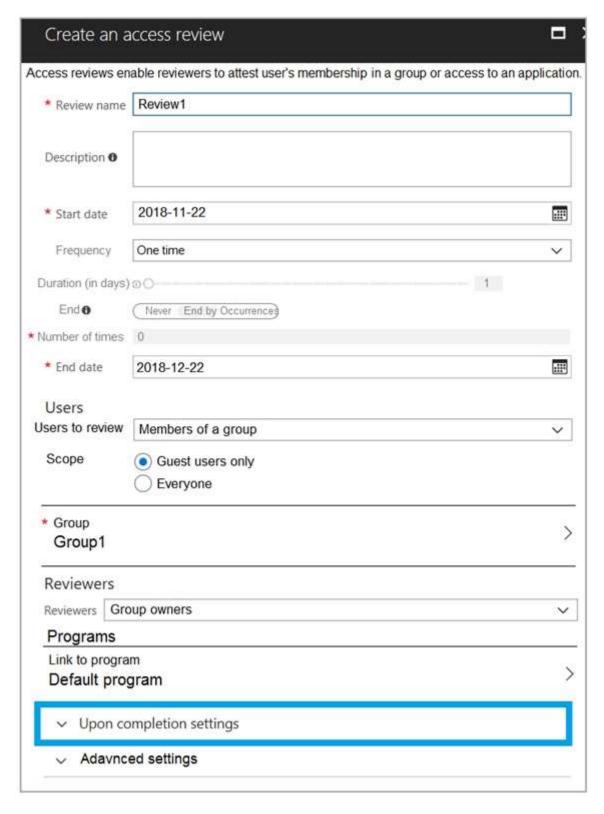
You have an Azure Active Directory (Azure AD) tenant named contoso.com that contains the users shown in the following table:

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:



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
User3 can perform an access review of User1	0	0
User3 can perform an access review of UserA	0	0
User3 can perform an access review of UserB	0	0

### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
User3 can perform an access review of User1	0	0
User3 can perform an access review of UserA	0	0
User3 can perform an access review of UserB	0	0

Section: (none) Explanation

# **Explanation/Reference:**

Reference:

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

# **QUESTION 8**

HOTSPOT

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

Name	In management group
Tenant Root Group	Not applicable
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.	0	0
You can create a virtual machine in Subscription2.	0	0
You can add Subscription1 to ManagementGroup11.	0	0
Tod our add odpostiption to Managementoroup 11.	O	O

## **Correct Answer:**

# **Answer Area**

Statements	Yes	No
You can create a virtual network in Subscription1.	0	0
You can create a virtual machine in Subscription2.	0	0
You can add Subscription1 to ManagementGroup11.	0	0

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.

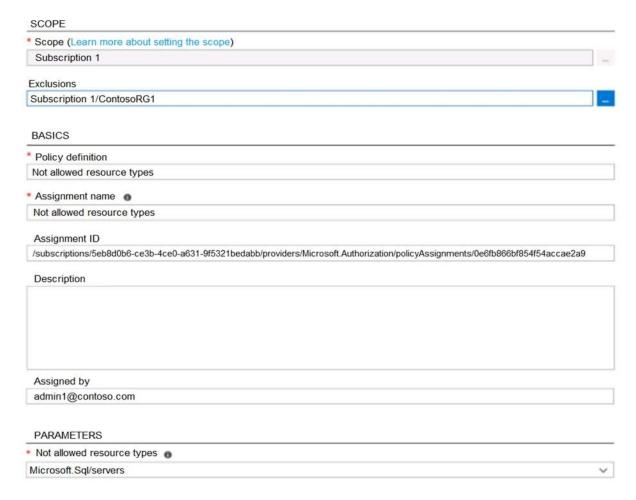
### Reference:

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 9**

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



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:**

Explanation:

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

### **QUESTION 10**

**HOTSPOT** 

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

Name	Туре	Resource group	Tag
RG6	Resource group	Not applicable	None
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	None		
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.

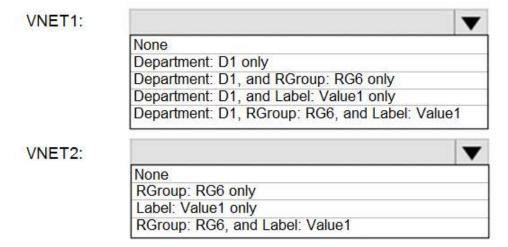
You deploy a virtual network named VNET2 to RG6.

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.

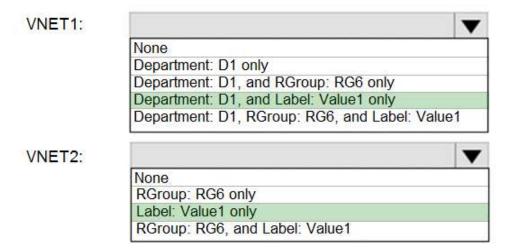
**Hot Area:** 

# **Answer Area**



### **Correct Answer:**

# **Answer Area**



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 11**

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

Name	Type		
storagel	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:**

Explanation:

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 12**

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 13**

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:**

Explanation:

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:

 $\underline{\text{https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-users-assign-role-azure-portal}$ 

### **QUESTION 14**

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 15**

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:**

Explanation:

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 16**

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:**

Explanation:

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 17**

**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	0	0
User2 can add Device1 to Group1	0	0
User2 can add Device2 to Group2	0	0

### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
User1 can add Device2 to Group1	0	0
User2 can add Device1 to Group1	0	0
User2 can add Device2 to Group2	0	0

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 18**

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	Туре	Location		
VM1	Virtual machine	North Europe		
RGV1	Recovery Services vault	North Europe		
SQLD01	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 19**

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 User1 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:**

Explanation:

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

#### Note

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

- 1. Name Server (NS)
- 2. Assign User1 the Contributor role for VNet1.
- 3. Remove User1 from the Security Reader and Reader roles for Subscription1. Assign User1 the Contributor role for Subscription1.

#### Reference:

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

#### **QUESTION 20**

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 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-securing-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**

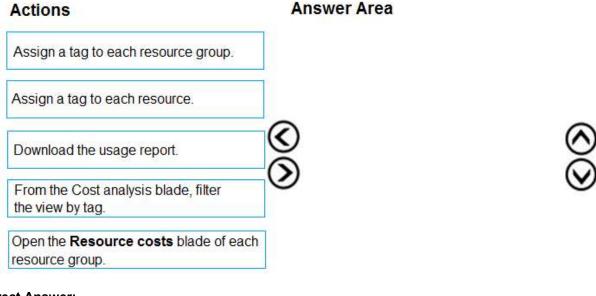
DRAG DROP

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.

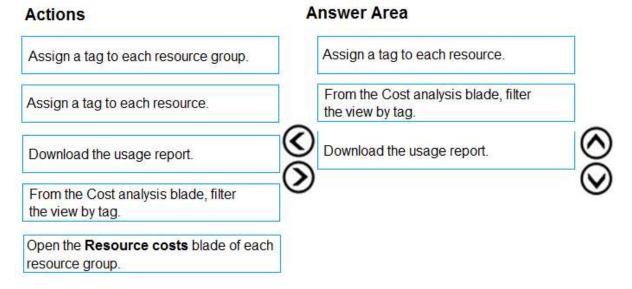
You need to send a report to the finance department. The report must detail the costs for each department.

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:



### **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. A network interface named VM1-NI is connected to VNET1.

You successfully deploy the following resources in an Azure Resource Manager template.

```
"apiVersion": "2017-03-30",
"type": "Microsoft.Compute/virtualMachines",
"name": "VM1"
"zones": "1",
"location": "EastUS2",
"dependsOn": [
"[resourceld('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": "[resourceld('Microsoft.Network/networkInterfaces', "VM1-NI')]"
.
}.
   [
"apiVersion": "2017-03-30",
"type": "Microsoft.Compute/virtualMachines",
"name": "VM2",
"zones": "2",
"location": "EastUS2",
"dependsOn": [
"[resourceld('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	0	0
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	0	0
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	0	0

### **Correct Answer:**

### **Answer Area**

Statements	Yes	No
VM1 and VM2 can connect to VNET1	0	0
If an Azure datacenter becomes unavailable, VM1 or VM2 will be available.	0	0
If the East US 2 region becomes unavailable, VM1 or VM2 will be available.	0	0

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.

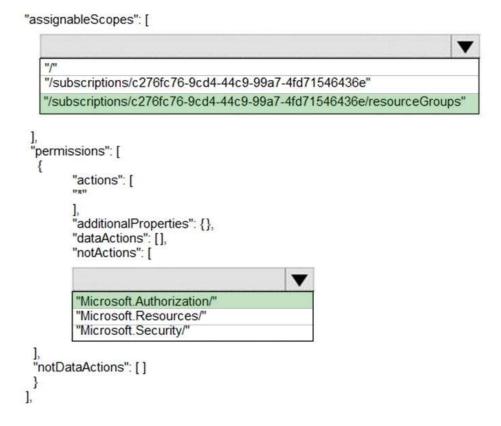
**NOTE:** Each correct selection is worth one point.

Hot Area:

# **Answer Area**

### **Correct Answer:**

### **Answer Area**



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:

Network traffic from the VPN gateway is routed to the cloud application through an internal load balancer. The load balancer is located in the front-end subnet of the application.

#### Reference:

https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn

https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-overview

https://docs.microsoft.com/en-us/azure/application-gateway/overview

### **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.

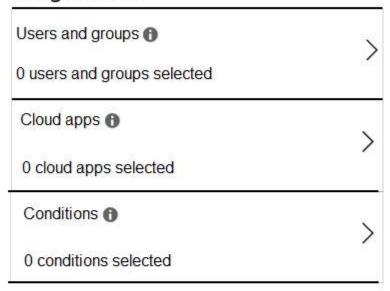
**NOTE:** Each correct selection is worth one point.

Hot Area:

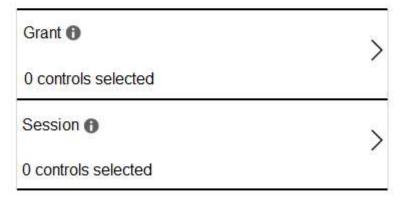
# **Answer Area**



# Assignments



# Access controls



# Enable policy

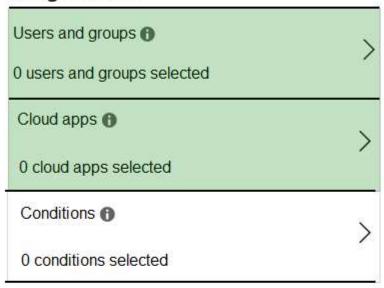


### **Correct Answer:**

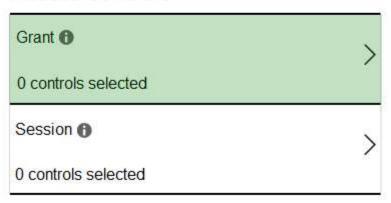
# **Answer Area**



# Assignments



# Access controls



# 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 linked to an Azure Active Directory tenant. The tenant includes 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	Х	X	Х	X	X	x	х
Contributor	X	X	X	×			Х
MG Contributor*	х	Х	Х	x			х
Reader							х
MG Reader*							х
Resource Policy Contributor						x	
User Access Administrator					×	×	

#### 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.

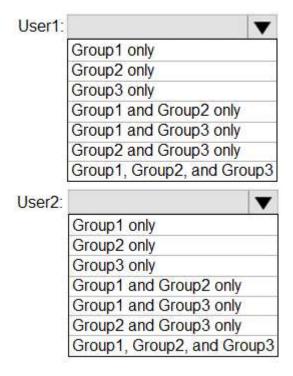
Name	City	Department	Office 365 license assigned
User1	Montreal	Human resources	Yes
User2	Melbourne	Marketing	No

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.

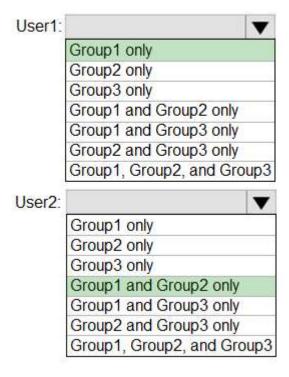
### Hot Area:

# **Answer Area**



### **Correct Answer:**

# **Answer Area**



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

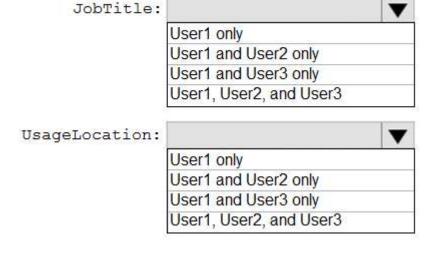
You need to modify the JobTitle and UsageLocation attributes for the users.

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

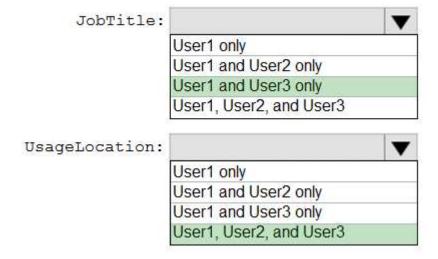
**NOTE:** Each correct selection is worth one point.

**Hot Area:** 

# **Answer Area**



### **Correct Answer:**



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-fag

### **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-fag

# **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

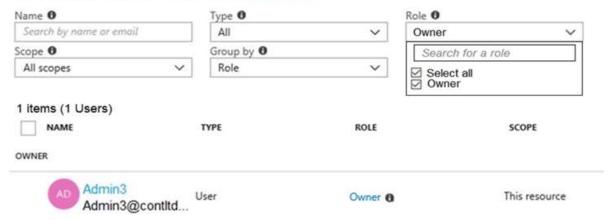
### **QUESTION 40**

HOTSPOT

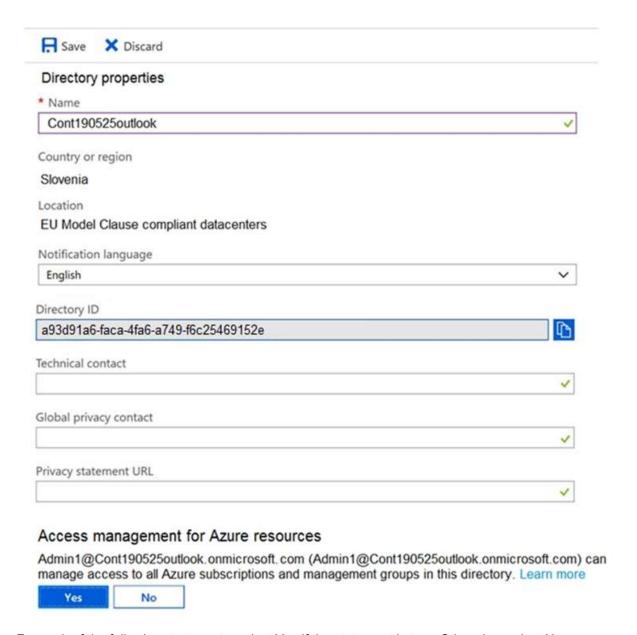
You have an Azure Active Directory (Azure AD) tenant that contains three global administrators named Admin1, Admin2, and Admin3.

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



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



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 Admin 2 as an owner of the subscription.	0	0
Admin3 can add Admin 2 as an owner of the subscription.	0	0
Admin2 can create a resource group in the subscription.	0	0

# **Correct Answer:**

# **Answer Area**

Statements	Yes	No
Admin1 can add Admin 2 as an owner of the subscription.	0	0
Admin3 can add Admin 2 as an owner of the subscription.	0	0
Admin2 can create a resource group in the subscription.	0	0

Section: (none) Explanation

### **Explanation/Reference:**

**Explanation:** 

Box 1: No

Only Admin3, the owner, can assign ownership.

Box 2: Yes

Box 3: No

### 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	Туре	Description
VM1	Virtual Machine	VM1 is running and configured to back up to Vault1 daily
Vault1	Recovery Services Vault	Vault1 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

### **QUESTION 43**

You have an Azure DNS zone named adatum.com.

You need to delegate a subdomain named research.adatum.com to a different DNS server in Azure.

What should you do?

- A. Create an NS record named research in the adatum.com zone.
- B. Create an PTR record named research in the adatum.com zone.
- C. Modify the SOA record of adatum.com.
- D. Create an A record named \*.research in the adatum.com zone.

Correct Answer: A Section: (none)

# Explanation

Explanation/Reference:
Explanation:
You need to create a name server (NS) record for the zone.

# Reference:

https://docs.microsoft.com/en-us/azure/dns/delegate-subdomain

# Manage Azure identities and governance

### **Testlet 2**

# **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.

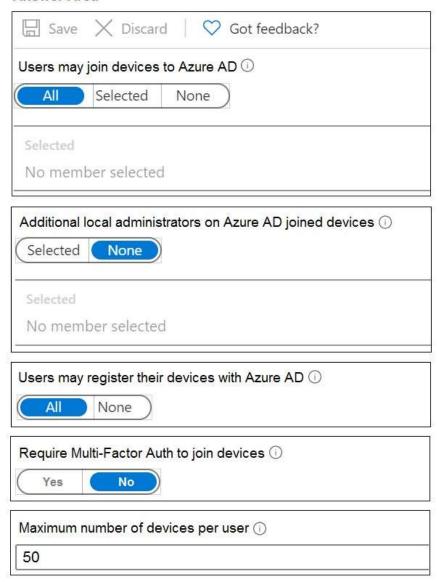
# **QUESTION 1**

**HOTSPOT** 

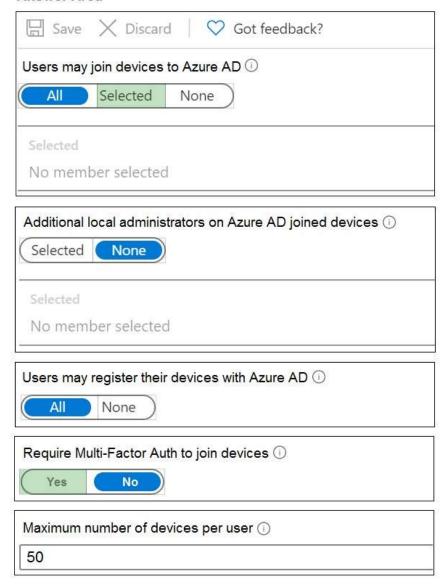
You need to configure the Device settings to meet the technical requirements and the user requirements.

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

### Hot Area:



**Correct Answer:** 



Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

Box 1: Selected

Only selected users should be able to join devices

### Box 2: Yes

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

# **QUESTION 2**

You need to meet the user requirement for Admin1.

What should you do?

- A. From the Azure Active Directory blade, modify the Groups
- B. From the Azure Active Directory blade, modify the Properties
- C. From the Subscriptions blade, select the subscription, and then modify the Access control (IAM) settings
- D. From the Subscriptions blade, select the subscription, and then modify the Properties

Correct Answer: D Section: (none) Explanation

### **Explanation/Reference:**

Explanation:

### Scenario:

- Designate a new user named Admin1 as the service admin for the Azure subscription.
- Admin1 must receive email alerts regarding service outages.

Follow these steps to change the Service Administrator in the Azure portal.

- 1. Make sure your scenario is supported by checking the limitations for changing the Service Administrator.
- 2. Sign in to the Azure portal as the Account Administrator.
- 3. Open Cost Management + Billing and select a subscription.
- 4. In the left navigation, click Properties.
- 5. Click Service Admin.

### Reference:

https://docs.microsoft.com/en-us/azure/role-based-access-control/classic-administrators

# Implement and manage storage

# **Question Set 1**

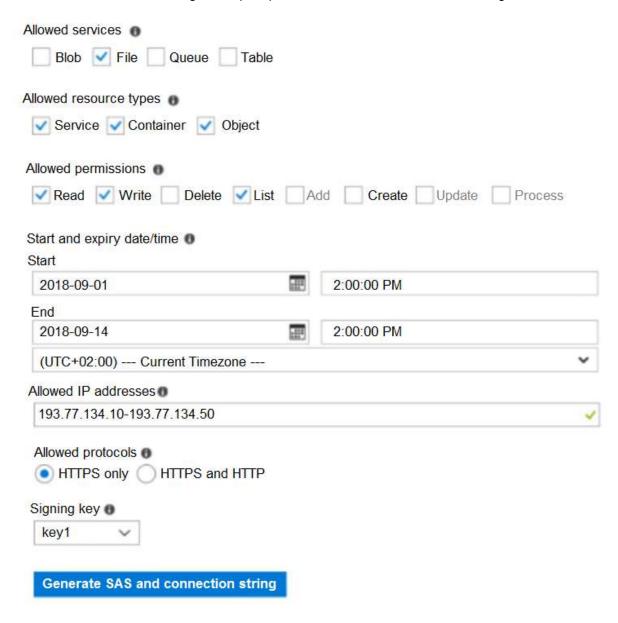
# **QUESTION 1**

**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:



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

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

**Hot 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 connec 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

### **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 connec 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	
CAN LO CASCALLA PARACCALARA	D.A
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 2**

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:**

**Explanation:** 

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 3**

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

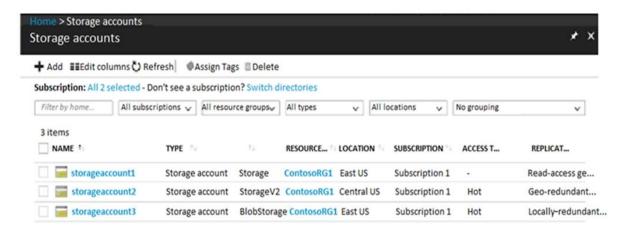
### Reference:

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

# **QUESTION 4**

**HOTSPOT** 

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

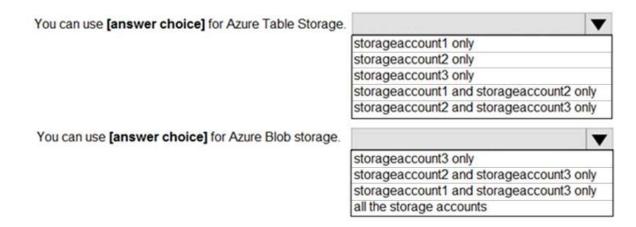


Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

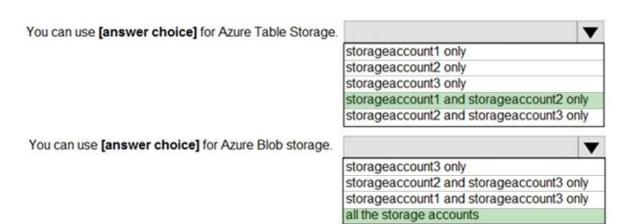
**NOTE:** Each correct selection is worth one point.

### Hot Area:

### **Answer Area**



### **Correct Answer:**



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 5**

You have Azure subscription that includes data in following locations:

Name	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 6**

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.

Ann1.

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	
	The cost we yo	
	Advanced security	

# **Correct Answer:**

App1:

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

App2:



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 7**

**HOTSPOT** 

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

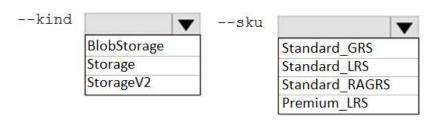
- Minimizes costs
- Supports hot, cool, and archive blob tiers
- Provides fault tolerance if a disaster affects the Azure region where the account resides

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:

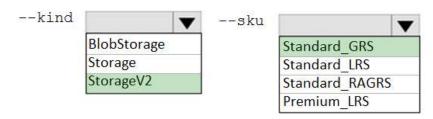
az storage account create -g RG1 -n storageaccount1



### **Correct Answer:**

# **Answer Area**

az storage account create -g RG1 -n storageaccount1



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 8**

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

Name	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 9**

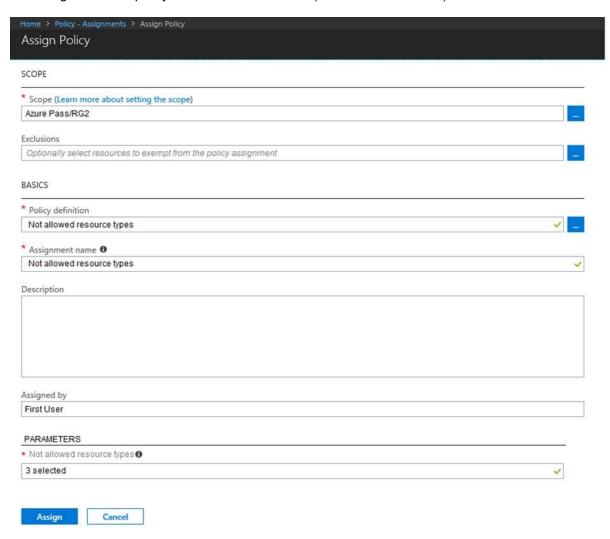
**HOTSPOT** 

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

Name	Туре	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.)



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:**

	Statements	Yes	No
	An administrator can move VNET1 to RG2	0	0
	The state of VM1 changed to deallocated	0	0
	An administrator can modify the address space of VNET2	0	0
Correct Answer: Answer Area			
	Statements	Yes	No
	An administrator can move VNET1 to RG2	0	0
	The state of VM1 changed to deallocated	0	0
	An administrator can modify the address space of VNET2	0	0

Section: (none) Explanation

# **Explanation/Reference:**

# QUESTION 10 DRAG DROP

You have an Azure subscription that contains a storage account.

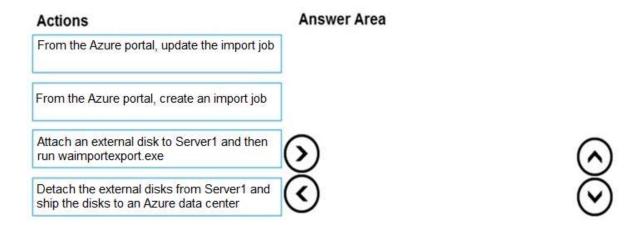
You have an on-premises server named Server1 that runs Windows Server 2016. Server1 has 2 TB of data.

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

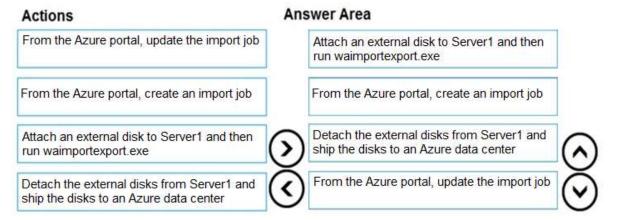
In which order should you perform the actions? To answer, move all actions from the list of actions to the answer area and arrange them in the correct order.

**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:**



### **Correct Answer:**



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 WAlmportExport 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 11**

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.

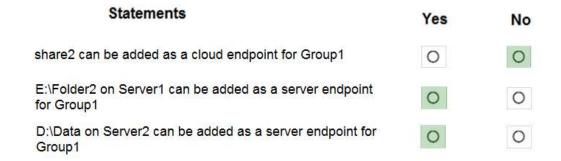
**NOTE:** Each correct selection is worth one point.

# **Hot Area:**

# **Answer Area**

Statements	Yes	No
share2 can be added as a cloud endpoint for Group1	0	0
E:\Folder2 on Server1 can be added as a server endpoint for Group1	0	0
D:\Data on Server2 can be added as a server endpoint for Group1	0	0

**Correct Answer:** 



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 12**

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:**

olob	blob.core.windows.net		
OD	blob.core.wiridows.riet	//	1
ontosostorage	uutu		
)	file.core.windows.net	0	
tal.azure.com	The second contract of	0	

### **Correct Answer:**

blob	blob.core.windows.net	"	contosostorage	Π.	file.core.windows.net	١	data
contosostorage	data			- 22		J	
file	file.core.windows.net						
portal.azure.com	subscription1						

Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

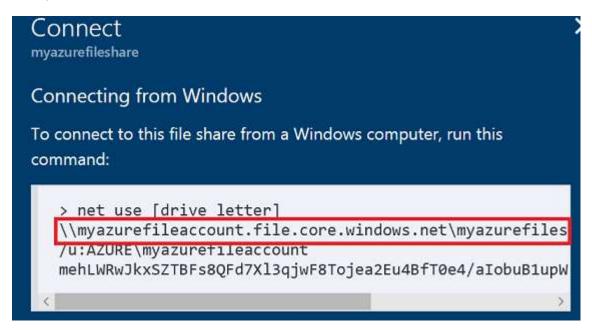
Box 1: contosostorage The name of account

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 13**

**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.

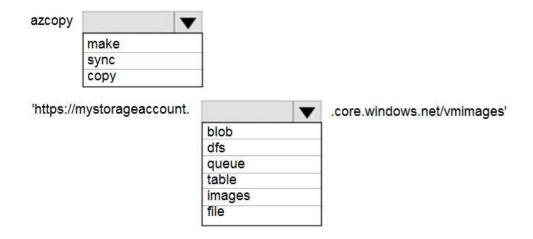
You need to create the container for the planned image.

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

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

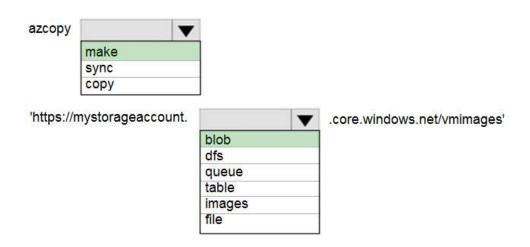
# **Hot Area:**

# **Answer Area**



# **Correct Answer:**

# **Answer Area**



Section: (none) Explanation

Explanation/Reference:

QUESTION 14 HOTSPOT You have an Azure File sync group that has the endpoints shown in the following table.

Name	Туре		
Endpoint1	Cloud endpoint		
Endpoint2	Server endpoint		
Endpoint3	Server endpoint		

Cloud tiering is enabled for Endpoint3.

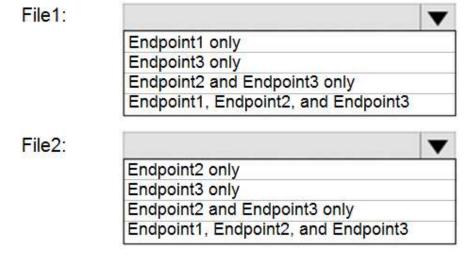
You add a file named File1 to Endpoint1 and a file named File2 to Endpoint2.

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.

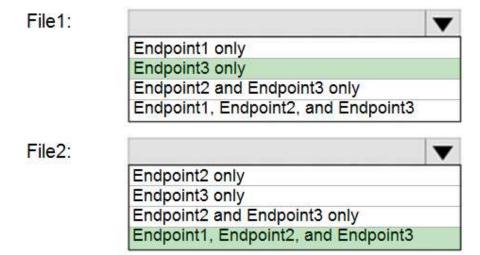
NOTE: Each correct selection is worth one point.

### Hot Area:

# **Answer Area**



**Correct Answer:** 



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:

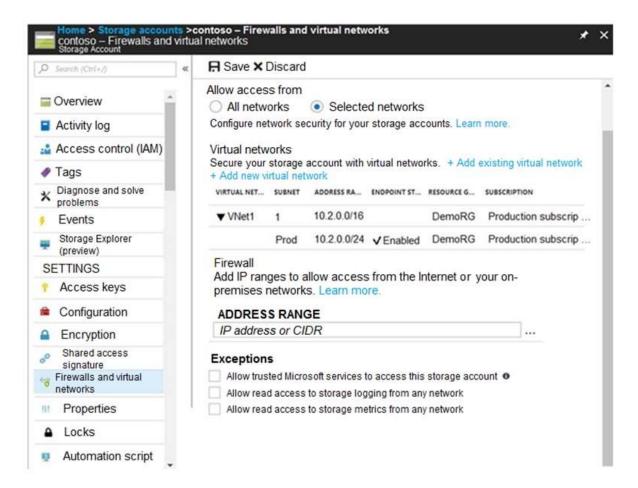
https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-cloud-tiering

# **QUESTION 15**

**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.



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

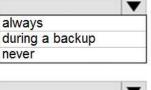
NOTE: Each correct selection is worth one point.

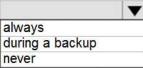
### **Hot Area:**

### **Answer Area**

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

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

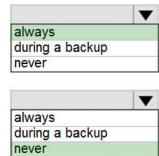




# **Correct Answer:**

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].

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



Section: (none) Explanation

# **Explanation/Reference:**

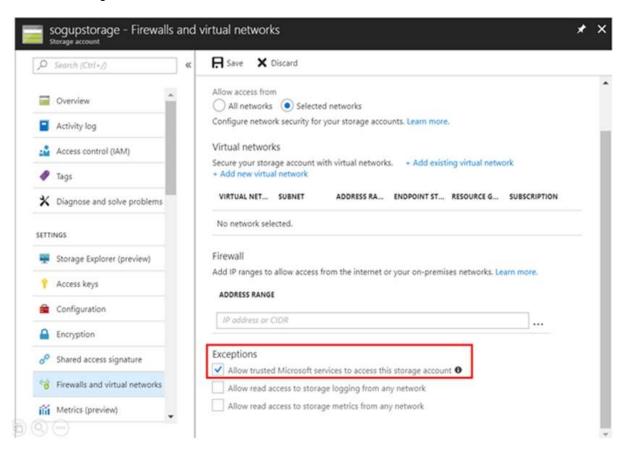
Explanation:

Box 1: always

Endpoint status is enabled.

### 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.



### 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 16**

**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.	0	0
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	0	0
File1.txt from Share1 replicates to Share2.	O	0

### **Correct Answer:**

Statements	Yes	No
On the cloud endpoint, File1.txt is overwritten by File1.txt from Share1.	0	0
On Server1, File1.txt is overwritten by File1.txt from the cloud endpoint.	0	0
File1.txt from Share1 replicates to Share2.	0	0

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 17**

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:**

Explanation:

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 18**

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 19**

**DRAG DROP** 

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

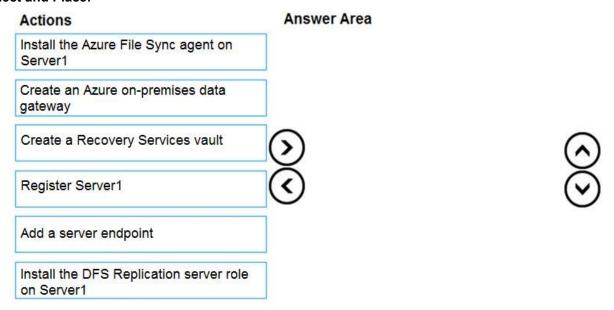
You have an Azure subscription that contains an Azure file share.

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:**



#### **Correct Answer:**

Actions	Answer Area	
Install the Azure File Sync agent on Server1	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	$\bigcirc$
Register Server1	<b>(</b>	$\overline{\odot}$
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 20**

**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**

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 21**

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: DE Section: (none) Explanation

### **Explanation/Reference:**

Explanation:

D: 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

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

#### Reference:

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

#### **QUESTION 22**

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

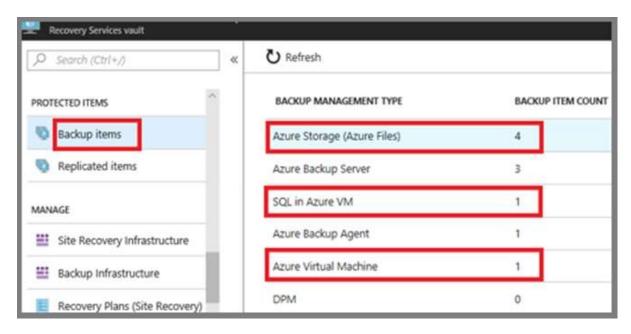
#### **Explanation/Reference:**

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.



#### Reference:

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

### **QUESTION 23**

**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	Not applicable
RG2	Resource group	West US	Not applicable
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:** 

Can use Vault1 for backups:

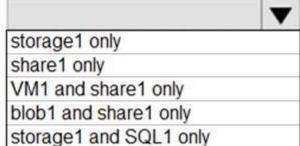
VM1 only VM1 and share1 only

VM1 and SQL1 only

VM1, storage1, and SQL1 only

VM1, blob1, share1, and SQL1

Can use Vault2 for backups:



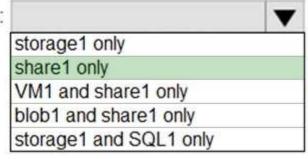
#### **Correct Answer:**

### **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:



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 Vautl1.

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-cyrl-ba/azure/backup/backup-create-rs-vault

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

#### **QUESTION 24**

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.

#### Note:

There are several versions of this question in the exam. The question has two correct answers:

- 1. Azure File Storage
- 2. Azure Blob Storage

The question can have other incorrect answer options, including the following:

- Azure Data Lake Store
- Azure SQL Database
- Azure Data Factory

#### Reference:

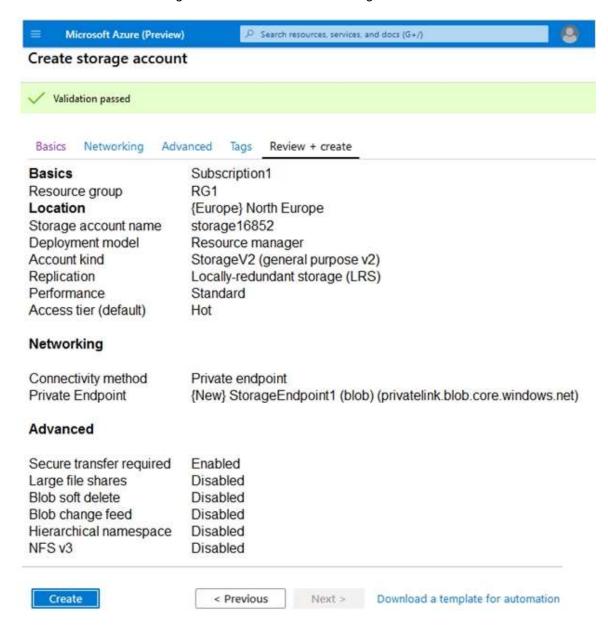
https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-service

### **QUESTION 25**

**HOTSPOT** 

You have an Azure subscription.

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



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

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

Hot Area:

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

1 2 3 4

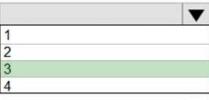
To reduce the cost of infrequently accessed data in the storage account, you must modify the [answer choice] setting

Access tier (default)	
Performance	
Account kind	
Replication	

#### **Correct Answer:**

### **Answer Area**

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



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 26**

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:**

Explanation:

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 27**

**HOTSPOT** 

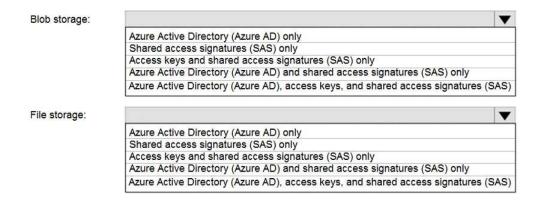
You have an Azure Storage account named storage1 that uses Azure Blob storage and Azure File storage.

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

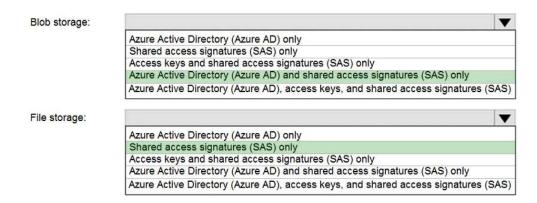
Which authentication method should you use for each type of storage? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

### Hot Area:



### Correct Answer: Answer Area



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 28**

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 29**

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:**

Explanation:

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 30**

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.

#### Note:

There are several versions of this question in the exam. The question has two correct answers:

- 1. Azure File Storage
- 2. Azure Blob Storage

The question can have other incorrect answer options, including the following:

- a virtual machine
- Azure SQL Database
- Azure Data Factory

#### Reference:

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

### **QUESTION 31**

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:

Answer Area	
First action:	Action
Second action:	Action
	First action:

### Corr

Actions	Answer Area	
	First action:	Create a Storage Sync Service
Create a sync group	Second action:	Install the Azure File Sync agent
Run Server Registration		

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 32**

**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.	0	0
You can add data2 as an additional server endpoint for Sync1.	0	0
You can add data3 as an additional server endpoint for Sync1.	0	0

### **Correct Answer:**

Statements		No
You can add share3 as an additional cloud endpoint for Sync1.	0	0
You can add data2 as an additional server endpoint for Sync1.	0	0
You can add data3 as an additional server endpoint for Sync1.	0	0

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:

 $\underline{\text{https://docs.microsoft.com/en-us/azure/storage/files/storage-sync-files-deployment-guide?tabs=azure-portal\%}\\ \underline{\text{2Cproactive-portal\#create-a-sync-group-and-a-cloud-endpoint}}$ 

### **QUESTION 33**

**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	Not applicable
RG2	Resource group	West US	Not applicable
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:

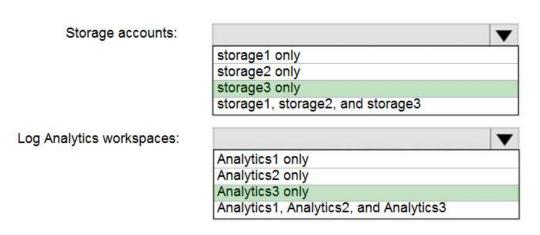
storage1 only
storage2 only
storage3 only
storage1, storage2, and storage3

Log Analytics workspaces:

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

#### **Correct Answer:**

#### Answer Area



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.

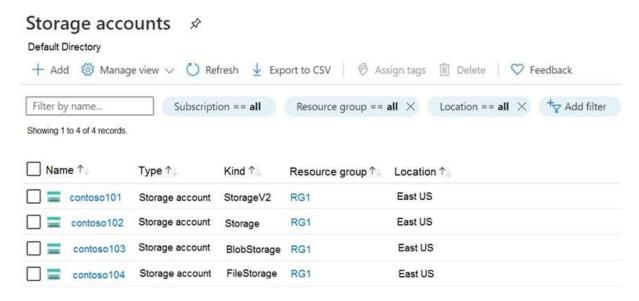
#### Reference:

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

### **QUESTION 34**

### **HOTSPOT**

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

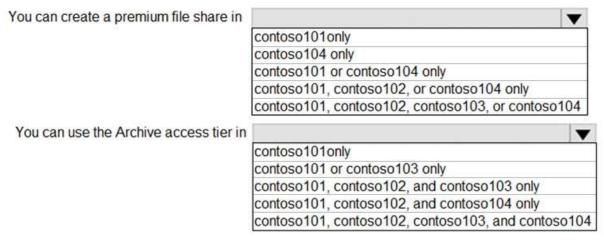


Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

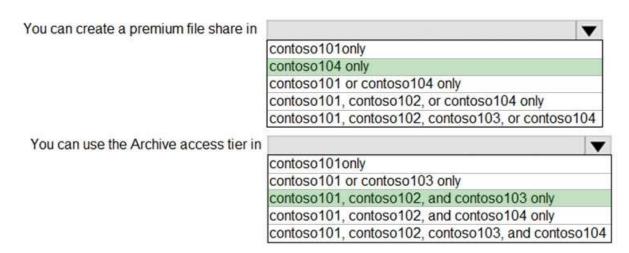
**NOTE:** Each correct selection is worth one point.

### **Hot Area:**

**Answer Area** 



### **Correct Answer:**



Section: (none) Explanation

### **Explanation/Reference:**

Explanation:

Box 1: contoso104 only

Premium file shares are hosted in a special purpose storage account kind, called a FileStorage account.

Box 2: contoso101, contoso102, and contos103 only

### Reference:

https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-premium-fileshare?tabs=azure-portal

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

### Implement and manage storage

### **Testlet 2**

### **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.

#### **QUESTION 1**

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:**

Explanation:

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 2**

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:**

Explanation:

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:

 $\underline{\text{https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-data-to-azure-blobusing-azure-storage-explorer}$ 

### **QUESTION 3**

**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.	0	0
Contoso requires a storage account that supports Azure Table storage.	0	0
Contoso requires a storage account that supports Azure File Storage.	0	0

#### **Correct Answer:**

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	0	0
Contoso requires a storage account that supports Azure Table storage.	0	0
Contoso requires a storage account that supports Azure File Storage.	0	0

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

### **Deploy and manage Azure compute resources**

### **Question Set 1**

### **QUESTION 1**

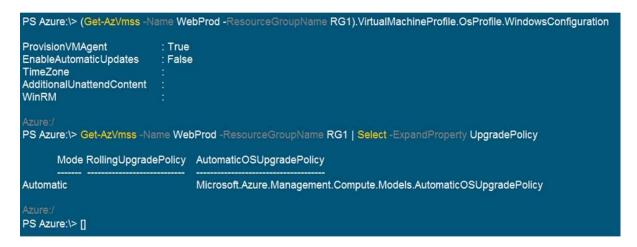
**HOTSPOT** 

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:



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

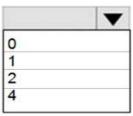
**NOTE:** Each correct selection is worth one point.

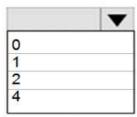
#### Hot Area:

### **Answer Area**

When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

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.



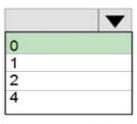


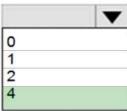
### **Correct Answer:**

### **Answer Area**

When an administrator changes the virtual machine size, the size will be changed on up to [answer choice] virtual machines simultaneously.

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.





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:

 $\underline{\text{https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-upgrade-scale-sets}\\$ 

 $\underline{\text{https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-automatic-upgrade}$ 

### **QUESTION 2**

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

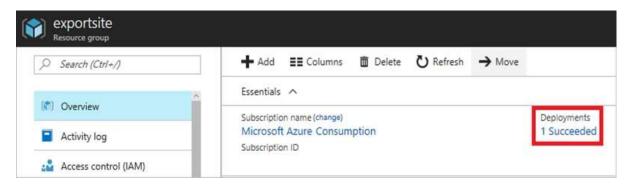
Correct Answer: B Section: (none) Explanation

### Explanation/Reference:

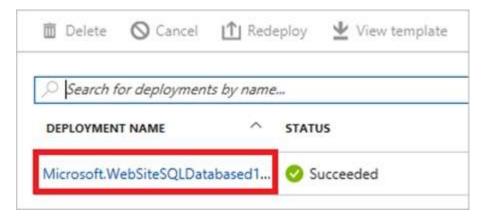
Explanation:

View template from deployment history

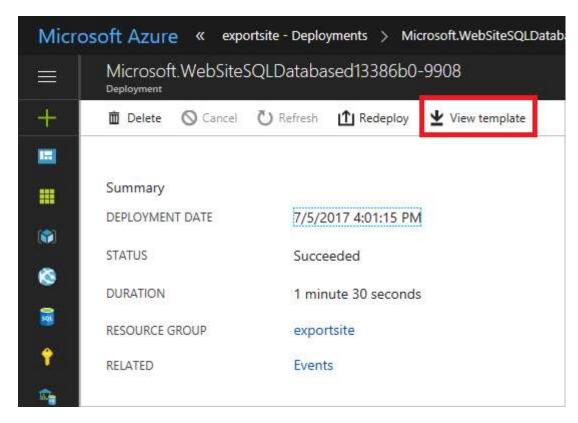
1. Go to the resource group for your new resource group. Notice that the portal shows the result of the last deployment. Select this link.



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.



#### Reference:

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

#### **QUESTION 3**

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:**

Explanation:

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 4**

**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.

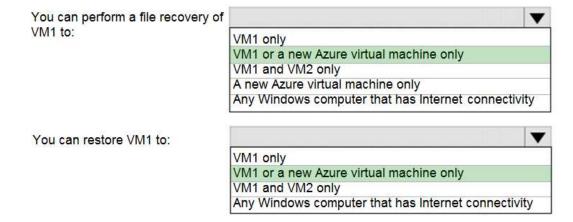
**NOTE:** Each correct selection is worth one point.

#### Hot Area:

### **Answer Area**

5	<b>▼</b>		
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:	<b>▼</b>		
	VM1 only		
	VM1 or a new Azure virtual machine only		
	VM1 and VM2 only		
	Any Windows computer that has Internet connectivity		

### **Correct Answer:**



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 5**

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

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

You have an Azure 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:

### 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 6**

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:**

Explanation:

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 7**

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:**

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 8**

**HOTSPOT** 

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

Name	Туре	
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.

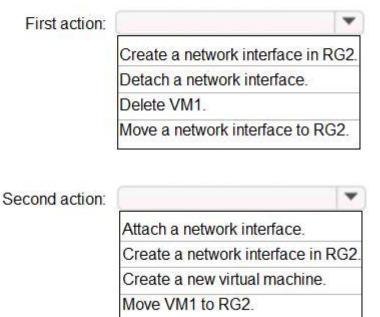
An administrator named Admin1 creates an Azure virtual machine named VM1 in RG1. VM1 uses a disk named Disk1 and connects to VNet1. Admin1 then installs a custom application in VM1.

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.

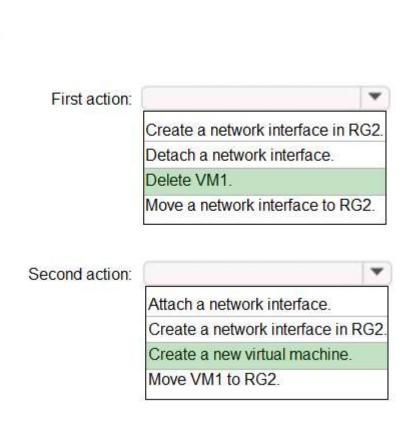
**NOTE:** Each correct selection is worth one point.

**Hot Area:** 



### **Correct Answer:**

### Answer Area



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 9**

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 10**

**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	

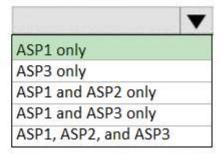
ASP1 and ASP3 only ASP1, ASP2, and ASP3

**Correct Answer:** 

WebApp1:

ASP1 only
ASP3 only
ASP1 and ASP2 only
ASP1 and ASP3 only
ASP1, ASP2, and ASP3

WebApp2:



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 11**

**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 * ①	4	~
Scaling		
Scaling policy	○ Manual       Custom	
Minimum number of VMs * ©	2	~
Maximum number of VMs • ①	20	~
Scale out		
CPU threshold (%)* ○	80	~
Duration in minutes • ①	5	~
Number of VMs to increase by ∗ ⊙	2	~
Scale in		
CPU threshold (%)* ①	30	~
Number of VMs to decrease by * ①	4	~
Diagnostic logs		
Collect diagnostic logs from Autoscale	⊙ ⊙ Disabled	

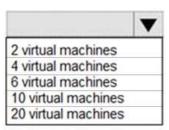
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

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

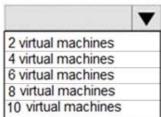
**Hot Area:** 

### **Answer Area**

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].



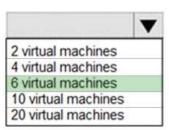
If Scale1 is first utilized at 25 percent for six minutes after it is deployed, and then utilized at 50 percent for six minutes, Scale1 will be running [answer choice].



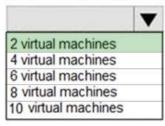
#### **Correct Answer:**

### Answer Area

If Scale1 is utilized at 85 percent for six minutes after it is deployed, Scale1 will be running [answer choice].



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].



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 machnes

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 12**

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 13**

**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.

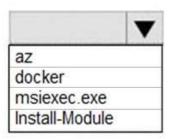
You need to install the kubectl client on Computer1.

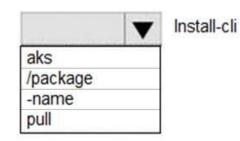
Which command should you run? To answer, select the appropriate options in the answer area.

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

**Hot Area:** 

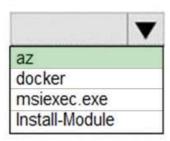
# **Answer Area**





### **Correct Answer:**

# **Answer Area**





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 14**

DRAG DROP

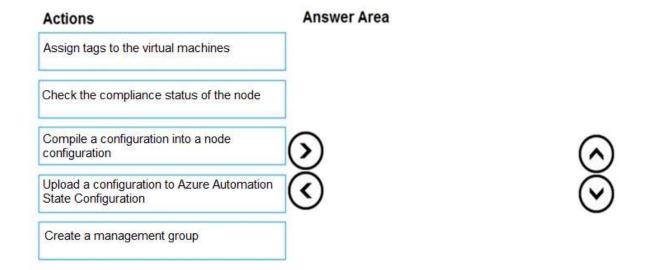
You onboard 10 Azure virtual machines to Azure Automation State Configuration.

You need to use Azure Automation State Configuration to manage the ongoing consistency of the virtual machine configurations.

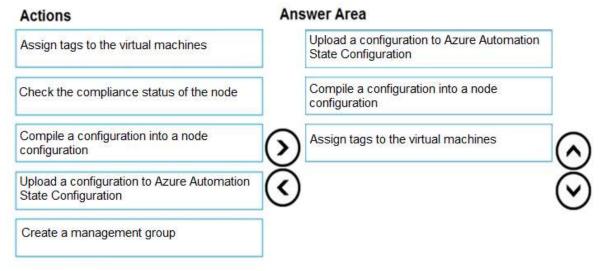
Which three actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

**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:**



#### **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 15**

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 16**

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 17**

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 18**

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 19**

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 20**

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 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 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 22**

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 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 subscription that contains the resources shown in the following table.

Name	Туре	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:

Explanation:

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 24**

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	Туре	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:

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 25**

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	Туре	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:

Explanation:

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 26**

**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:

# **Answer Area**

Statements	Yes	No
You can deploy VM3 to West US.	0	0
You can deploy VM4 to West US.	0	0
You can deploy VM5 to West US.	0	0

### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
You can deploy VM3 to West US.	0	0
You can deploy VM4 to West US.	0	0
You can deploy VM5 to West US.	0	0

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 27**

**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 28**

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 29**

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:**

**Explanation:** 

You create Azure web apps in an App Service plan.

#### Reference:

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

### **QUESTION 30**

**HOTSPOT** 

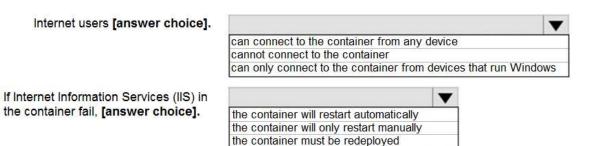
You plan to deploy an Azure container instance by using the following Azure Resource Manager template.

```
"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.

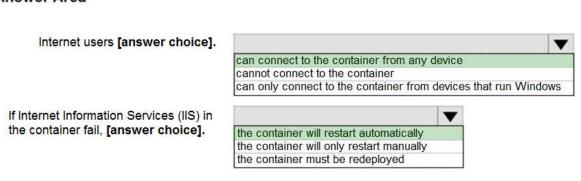
### Hot Area:

### **Answer Area**



#### **Correct Answer:**

### **Answer Area**



Section: (none) Explanation

### Explanation/Reference:

#### **QUESTION 31**

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:**

Explanation:

While resizing the VM it must be in a stopped state.

#### Reference

https://azure.microsoft.com/en-us/blog/resize-virtual-machines/

#### **QUESTION 32**

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 33**

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:

Explanation:

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 34**

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:

 $\underline{https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/orchestration-modes}$ 

### **QUESTION 35**

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 36**

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.





### **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 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 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:

Explanation:

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

Name	Туре	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 39**

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

Name	Role	
User1	None	
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?

- A. User1 only
- B. User2 only
- C. User1 and User2 only
- D. User1, User2, and User3 only
- E. 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 40**

**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	0	0
App1 can be moved to RG3	0	0
App1 can be moved to RG4	0	0

#### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
App1 can be moved to RG2	0	0
App1 can be moved to RG3	0	0
App1 can be moved to RG4	0	0

Section: (none) Explanation

### Explanation/Reference:

Explanation:

Box 1: No

RG2 is read only. ReadOnly means authorized users can read a resource, but they cannot delete or update the resource.

Box 2: Yes

Box 3: Yes

#### Note:

App Service resources are region-specific and cannot be moved across regions. You must create a copy of your existing App Service resources in the target region, then move your content over to the new app. You can then delete the source app and App Service plan.

To make copying your app easier, you can clone an individual App Service app into an App Service plan in another region.

### Reference:

https://docs.microsoft.com/en-us/azure/app-service/manage-move-across-regions

https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/move-limitations/app-service-move-limitations

## **QUESTION 41**

HOTSPOT

You have an Azure subscription named Subscription1 that contains the following resource group:

Name: RG1Region: West USTag: "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: storage1Location: West USResource group: RG1Tags: "tag3": "value3"

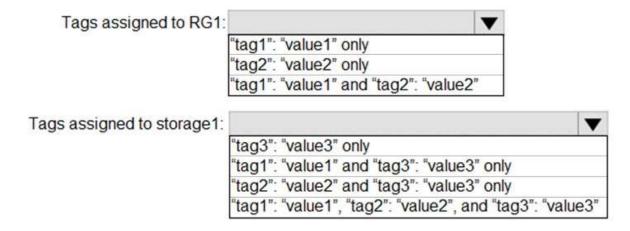
You need to identify which tags are assigned to each resource.

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

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

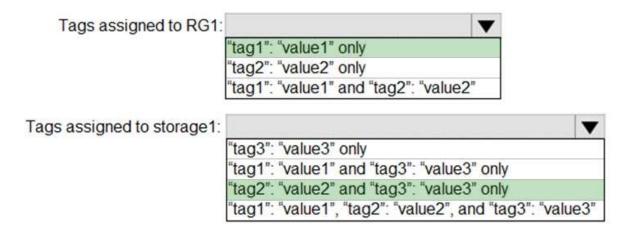
#### Hot Area:

### **Answer Area**



#### **Correct Answer:**

# Answer Area



Section: (none)

### **Explanation**

### **Explanation/Reference:**

Explanation:

Box 1: "tag1": "value1" only

Box 2: "tag2": "value2" and "tag3": "value3" 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 42**

**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-82986c53cd0b720c/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
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
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 send, 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 43**

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

Name	Туре	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 Subscription 1 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 44**

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 45**

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 46**

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: A Section: (none) Explanation

### **Explanation/Reference:**

**Explanation:** 

Resource Group location of VMSS1 is the RG2 location, which is West US.

Only Proximity2, which also in RG2, is location in West US

#### Reference:

https://azure.microsoft.com/en-us/blog/introducing-proximity-placement-groups/

#### **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 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 48**

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:**

Explanation:

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 49**

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:**

**Explanation:** 

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 50**

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:**

Explanation:

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

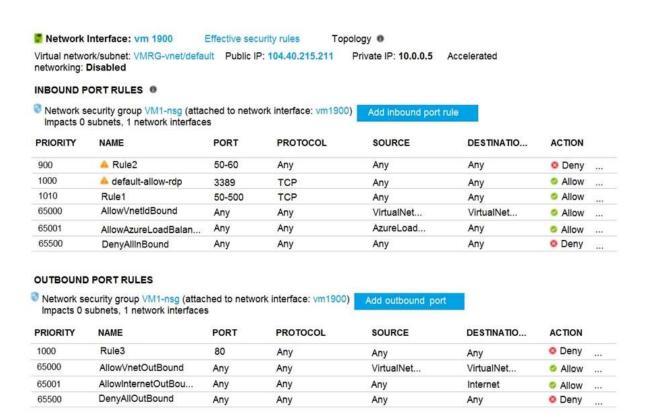
### **QUESTION 51**

**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:

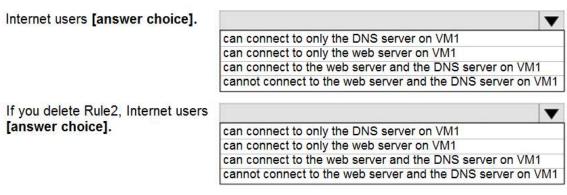


Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

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

#### **Hot Area:**

**Answer Area** 



#### **Correct Answer:**

#### **Answer Area**



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 52**

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: C Section: (none) Explanation

## Explanation/Reference:

Explanation:

Use availability zones to protect from datacenter level failures.

#### 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 53**

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:**

Explanation:

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 54**

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:

 $\underline{https://docs.microsoft.com/en-us/azure/automation/automation-quick start-dsc-configuration}$ 

# **QUESTION 55**

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"}

#### Note:

There are several versions of this question in the exam. The question has two correct answers:

- 1. a Desired State Configuration (DSC) extension
- 2. Azure Custom Script Extension

The question can have other incorrect answer options, including the following:

- the Publish-AzVMDscConfiguration cmdlet
- Azure Application Insights

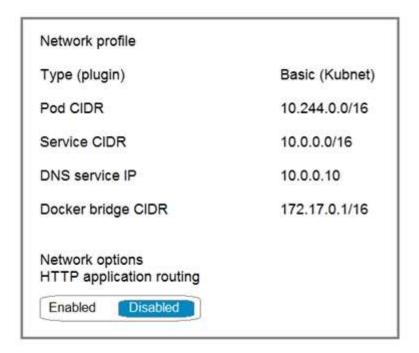
## Reference:

https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration

## **QUESTION 56**

**HOTSPOT** 

You deploy an Azure Kubernetes Service (AKS) cluster that has the network profile shown in the following exhibit.



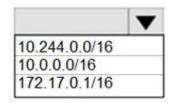
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

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

#### Hot Area:

# **Answer Area**

Containers will be assigned an IP address in the [answer choice] subnet.



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	

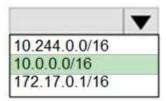
# **Correct Answer:**

# **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.



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.

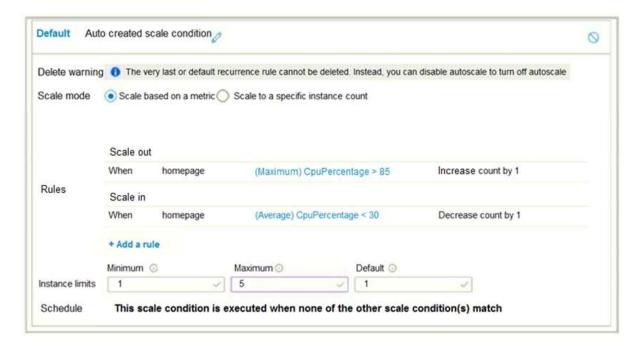
## Reference:

https://docs.microsoft.com/en-us/azure/aks/configure-kubenet

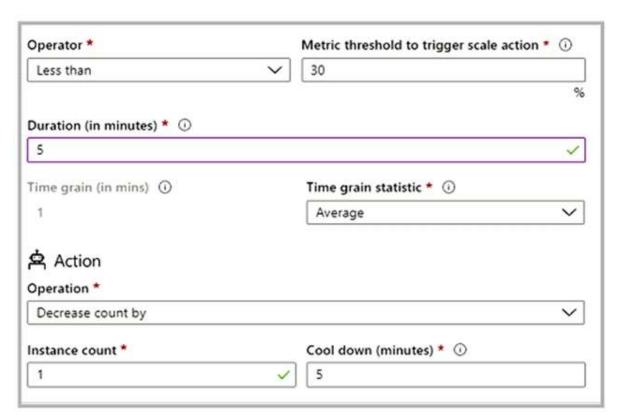
## **QUESTION 57**

**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.



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].

	$\forall$
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].

	79
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].

L		4
	1	
	2	
	3	
ľ	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].

	V
1	
2	
3	
4	
5	

Section: (none) Explanation

## **Explanation/Reference:**

Explanation:

Box 1: 5

The maximum 5 will kept as the CPU Usage >= 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

## **QUESTION 58**

You have an Azure virtual machine named VM1 that runs Windows Server 2019. The VM was deployed using default drive settings.

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

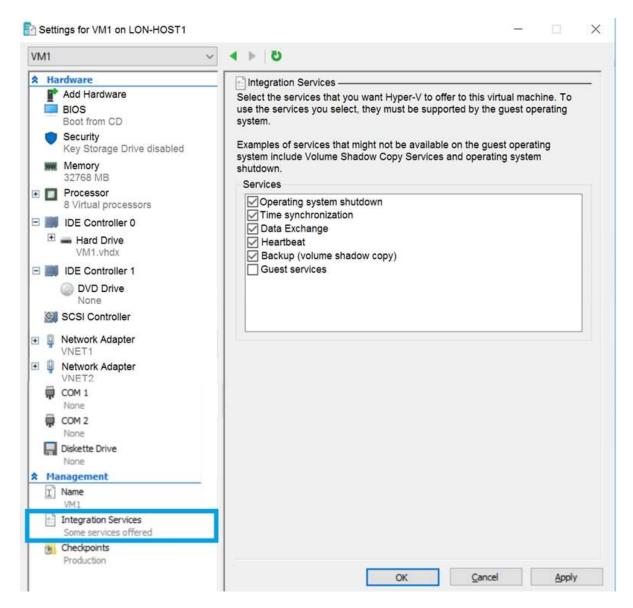
Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

# **QUESTION 59**

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:**

**Explanation:** 

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

# **Deploy and manage Azure compute resources**

## **Testlet 2**

## 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.

## **QUESTION 1**

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

# Configure and manage virtual networking

## **Question Set 1**

## **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: 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:**

Explanation:

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**

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:**

Explanation:

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 3**

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:**

Explanation:

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 4**

**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	Name server 1
Subscription (change) Azure Pass	Name server 2
Subscription ID a4fde29b-d56a-4f6c-8298-6c53cd0b720c	Name server 3 Name server 4

# Tags (change) Click here to add tags

∠ Search reco	rd sets		
Name	Туре	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	Α	3600	10.1.0.4
vm9	Α	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.	0	0	
VM5 can resolve VM9.adatum.com.	0	0	
VM6 can resolve VM9.adatum.com.	0	0	

## **Correct Answer:**

# **Answer Area**

Statements	Yes	No	
The A record for VM5 will be registered automatically in the adatum.com zone.	0	0	
VM5 can resolve VM9.adatum.com.	0	0	
VM6 can resolve VM9.adatum.com.	0	0	

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 5**

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.

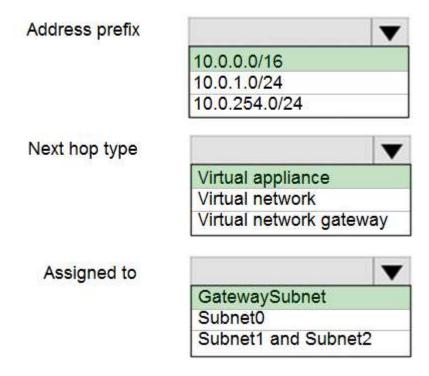
# **Hot Area:**

# **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**



Section: (none) Explanation

## **Explanation/Reference:**

#### **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

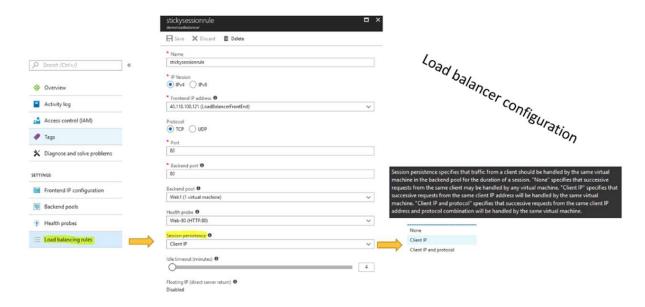
Correct Answer: D Section: (none) Explanation

# **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:



#### 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**

**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: 100Name: 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.

# Ho

Hot Area: Answer A	rea		
	Statements	Yes	No
	From the Internet, you can connect to VM1 by using Remote Desktop.	0	0
	From the Internet, you can connect to VM2 by using Remote Desktop.	0	0
	From VM1, you can connect to VM2 by using Remote Desktop	0	0
Correct Answer: Answer A	rea		
	Statements	Yes	No
	From the Internet, you can connect to VM1 by using Remote Desktop.	0	0
	From the Internet, you can connect to VM2 by using Remote Desktop.	0	0
	From VM1, you can connect to VM2 by using Remote Desktop	0	0
Section: (none)			

Section: (none) Explanation

Explanation/Reference:

# **QUESTION 8** 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.	0	0	
VM1 can connect to the TCP port 1433 services on VM2.	0	0	
VM2 can connect to the TCP port 1433 services on VM3.	0	0	

**Correct Answer:** 

# **Answer Area**

Statements	Yes	No	
VM2 can connect to the TCP port 1433 services on VM1.	0	0	
VM1 can connect to the TCP port 1433 services on VM2.	0	0	
VM2 can connect to the TCP port 1433 services on VM3.	0	0	

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 9**

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**

Statements	Yes	No	
VM3 can establish a network connection to VM1.	0	0	
If VM3 is turned off, VM2 can establish a network connection to VM1.	0	0	
VM1 can establish a network connection to VM2.	0	0	

## **Correct Answer:**

# **Answer Area**

Statements	Yes	No
VM3 can establish a network connection to VM1.	0	0
If VM3 is turned off, VM2 can establish a network connection to VM1.	0	0
VM1 can establish a network connection to VM2.	0	0

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 10**

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:**

Explanation:

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 11**

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-AzConfigurationAssignement cmdlet

Correct Answer: C Section: (none) Explanation

## **Explanation/Reference:**

Explanation:

Note:

There are several versions of this question in the exam. The question has two correct answers:

- 1. a Desired State Configuration (DSC) extension
- 2. Azure Custom Script Extension

The question can have other incorrect answer options, including the following:

- Deployment Center in Azure App Service
- a Microsoft Intune device configuration profile

#### Reference:

https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration

## **QUESTION 12**

**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:

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

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

#### **Correct Answer:**

#### **Answer Area**

Ensure that communication between the web servers and the business logic tier spreads equally across the virtual machines:

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

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

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 13**

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 14**

**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.

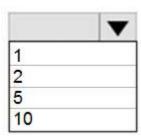
Hot Area:

# **Answer Area**

Minimum number of network interfaces:

	•
5	
10	
15	
20	

Minimum number of network security groups:



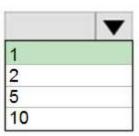
## **Correct Answer:**

# **Answer Area**

Minimum number of network interfaces:

	•
5	
10	-
15	
20	

Minimum number of network security groups:



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 15**

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:	
A records for VM2:	None
A records for VM2:	None Private IP address only
A records for VM2:	10.1/15.4/15.5

**Correct Answer:** 

## **Answer Area**

A records for VM1:

None
Private IP address only
Public IP address and public IP address

A records for VM2:

None
Private IP address only
Public 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 16**

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 Sunet1.

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.

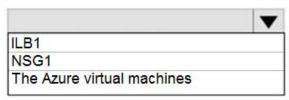
Hot Area:

## Answer Area

Resource to create:

An Azure Event Grid
An Azure Log Analytics workspace
An Azure Storage account

Resource on which to enable diagnostics:



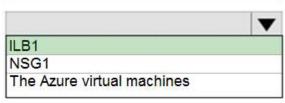
#### **Correct Answer:**

# **Answer Area**

Resource to create:

An Azure Event Grid
An Azure Log Analytics workspace
An Azure Storage account

Resource on which to enable diagnostics:



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 17**

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 andVNet3 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 18**

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:**

Explanation:

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 19**

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 20**

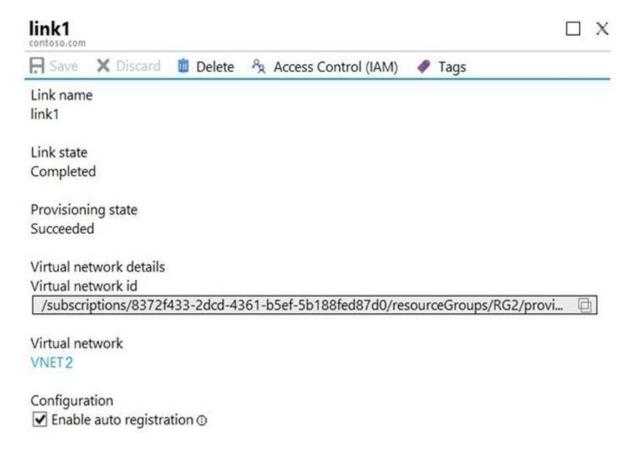
HOTSPOT

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		k DNS suffix configured i 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.



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		No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	0	0
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	0	0
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	0	0

## **Correct Answer:**

# **Answer Area**

Statements		No
When VM1 starts, a record for VM1 is added to the contoso.com DNS zone.	0	0
When VM2 starts, a record for VM2 is added to the contoso.com DNS zone.	0	0
When VM3 starts, a record for VM3 is added to the adatum.com DNS zone.	0	0

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 21**

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

Name	Туре	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:**

Explanation:

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 22**

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	VNet2
		10.1.1.0/26	
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.	(S)
On the peering connection in VNet2, allow gateway transit.	<b>③</b>
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 peering between VNet1 and Remove VNet1. VNet2. Add the 10.33.0.0/16 address space to Add the 10.33.0.0/16 address space to VNet1. Recreate peering between VNet1 and Create a new virtual network named VNet2. 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.

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 23**

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	Туре	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.

F

For each of the t	following statements, select Yes if the statement is true. Otherwise	, select No.	
NOTE: Each cor	rrect selection is worth one point.		
Hot Area: Answer	Area		
	Statements	Yes	No
	You can move storage1 to RG2.	0	0
	You can move NIC1 to RG2.	0	0
	If you move IP2 to RG1, the location of IP2 will change.	0	0
Correct Answer	r:		
Answer	Area		
	Statements	Yes	No
	You can move storage1 to RG2.	0	0
	You can move NIC1 to RG2.	0	0
	If you move IP2 to RG1, the location of IP2 will change.	0	0

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 24**

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

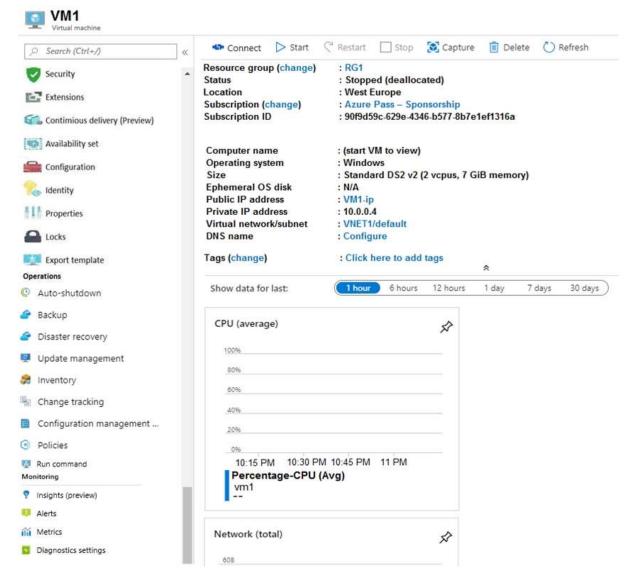
Correct Answer: D Section: (none) Explanation

# Explanation/Reference:

### **QUESTION 25**

You create an Azure VM named VM1 that runs Windows Server 2019.

VM1 is configured as shown in the exhibit. (Click the Exhibit tab.)



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 26**

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 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 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: UDPAction: 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 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.

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NSG-VM1 has the default inbound security rules and the following custom inbound security rule:

Priority: 100Source: Any

Source port range: \*

Destination: \*

Destination port range: 3389

Protocol: UDPAction: 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 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 the following resources:

- A virtual network that has a subnet named Subnet1
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- 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: 100Source: Any
- Source port range: \*
- Destination: \*
- Destination port range: 3389
- Protocol: UDPAction: 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 30**

HOTSPOT

You have a virtual network named VNet1 that has the configuration shown in the following exhibit.

```
Name
ResourceGroupName : Production
                   : /subscriptions/14d26092-8e42-4ea7-b770-
9dcef70fb1ea/resourceGroups/Production/providers/Microsoft.Network/virtualNetworks/VNet1
               : W/~76f7edd6-d022-455b-aeae-376059318e5d/
ResourceGuid : 562696cc-b2ba-4cc5-9619-0a735d6c34c7
ProvisioningState : Succeeded
ResourceGuid
Tags
                      "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": [],
                        "ServiceEndpoints": [],
                        "ProvisioningState": "Succeeded"
VirtualNetworkPeerings
EnableDDoSProtection
EnableVmProtection
```

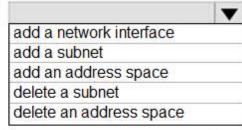
Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

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

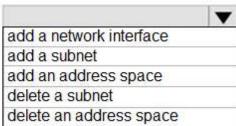
**Hot Area:** 

# **Answer Area**

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first



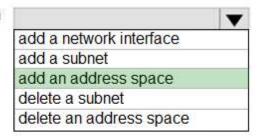
Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first



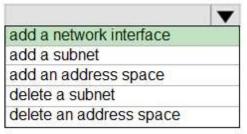
### **Correct Answer:**

# **Answer Area**

Before a virtual machine on VNet1 can receive an IP address from 192.168.1.0/24, you must first



Before a virtual machine on VNet1 can receive an IP address from 10.2.1.0/24, you must first



Section: (none) Explanation

### Explanation/Reference:

Explanation:

Box 1: add an address space

Your laaS 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 31**

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 32**

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

Name	Туре	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 33**

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 34**

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 35**

**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	Not applicable
VM4	Subnet11	Not applicable
VM5	Subnet12	Not applicable
VM6	Subnet12	Not applicable

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.	0	0
LB1 can balance the traffic between VM3 and VM4.	0	0
LB1 can balance the traffic between VM5 and VM6.	. 0	0

# **Correct Answer:**

# **Answer Area**

Statements	Yes	No
LB1 can balance the traffic between VM1 and VM2.	0	0
LB1 can balance the traffic between VM3 and VM4.	0	0
LB1 can balance the traffic between VM5 and VM6.	. 0	0

Section: (none)

# **Explanation**

# Explanation/Reference:

Reference:

https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-standard-overview

# **QUESTION 36**

**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	Туре	Location
Adatum.pri	Private	West Europe
Contoso.pri	Private	Central US
Adatum.com	Public	West Europe
Contoso.com	Public	North Europe

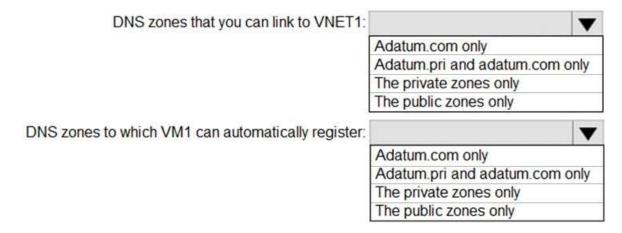
You need to identify which DNS zones you can link to VNET1 and the DNS zones to which VM1 can automatically register.

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**



### **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
The public zones only

Section: (none) Explanation

# Explanation/Reference:

Reference:

https://docs.microsoft.com/en-us/azure/dns/private-dns-overview

### QUESTION 37 DRAG DROP

You have an on-premises network that you plan to connect to Azure by using a site-so-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.

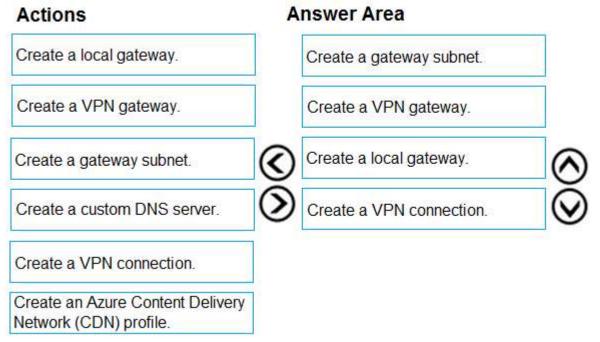
Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

**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 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:

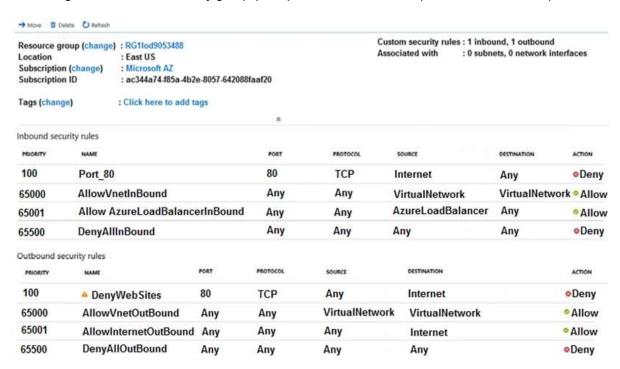
### **QUESTION 38**

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

Name	Туре	Details
VNet1	Virtual network	Not applicable
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.)



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 39**

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 40**

You plan to create an Azure virtual machine named VM1 that will be configured as shown in the following exhibit.

### Create a virtual machine



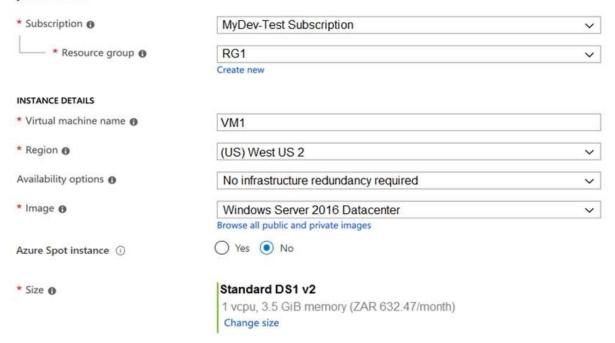
Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image.

Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full

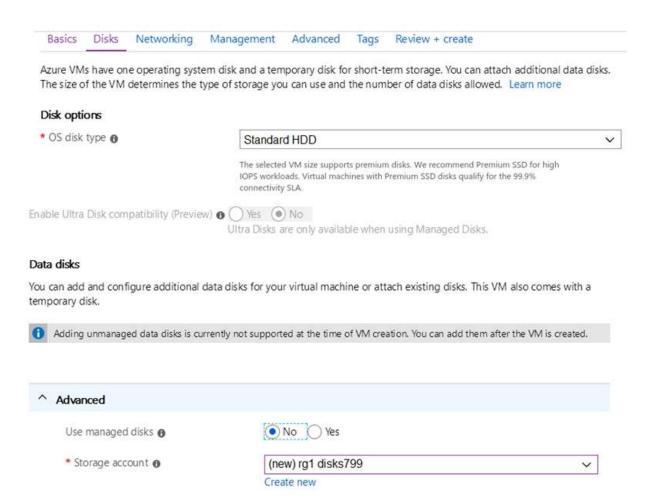
Looking for classic VMs? Create VM from Azure Marketplace

### PROJECT DETAILS

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.



The planned disk configurations for VM1 are shown in the following exhibit.



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

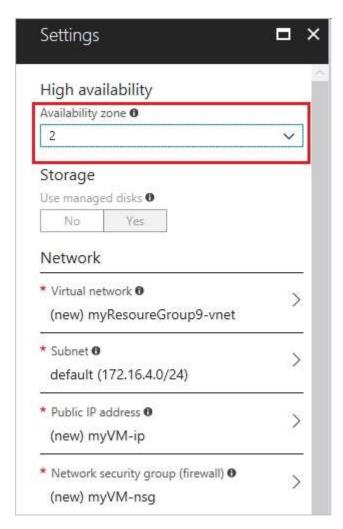
Correct Answer: AB Section: (none) Explanation

### **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 41**

**HOTSPOT** 

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

Name	Туре	Resource group	Location
RG1	Resource group	Not applicable	Central US
RG2	Resource group	Not applicable	West US
RG3	Resource group	Not applicable	East US
VMSS1	Virtual machine scale set	RG1	West US

VMSS1 is set to VM (virtual machines) orchestration mode.

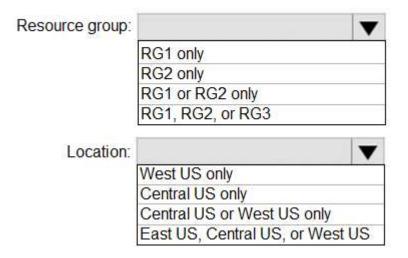
You need to deploy a new Azure virtual machine named VM1, and then add VM1 to VMSS1.

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.

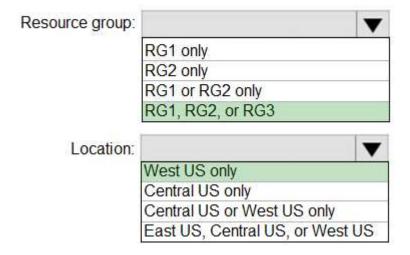
**Hot Area:** 

# **Answer Area**



### **Correct Answer:**

# **Answer Area**



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:

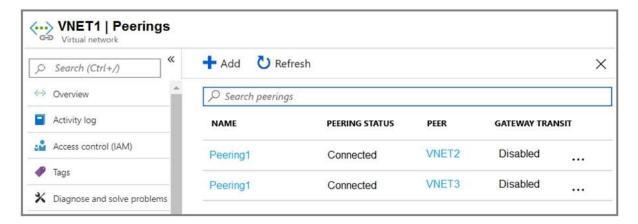
https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/overview

### **QUESTION 42**

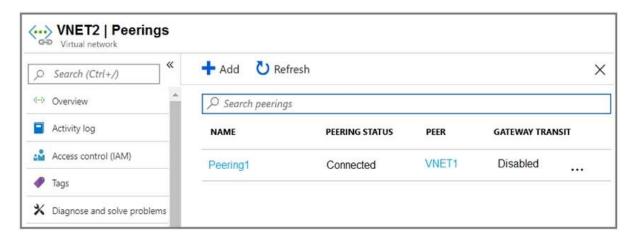
**HOTSPOT** 

You have an Azure subscription that contains three virtual networks named VNET1, VNET2, and VNET3.

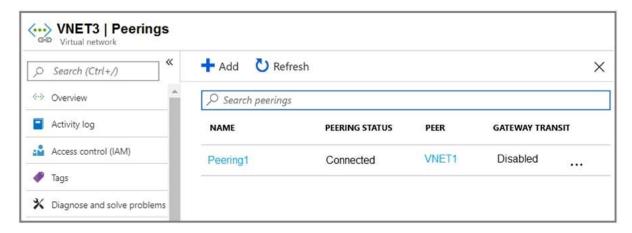
Peering for VNET1 is configured as shown in the following exhibit.



Peering for VNET2 is configured as shown in the following exhibit.



Peering for VNET3 is configured as shown in the following exhibit.

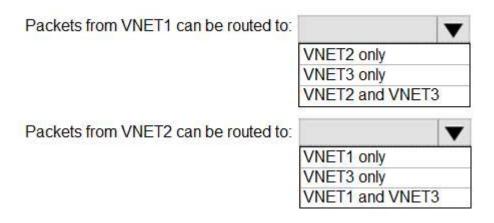


How can packets be routed between the virtual networks? To answer, select the appropriate options in the answer area.

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

### **Hot Area:**

# **Answer Area**



**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
VNET3 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 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 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 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 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 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 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

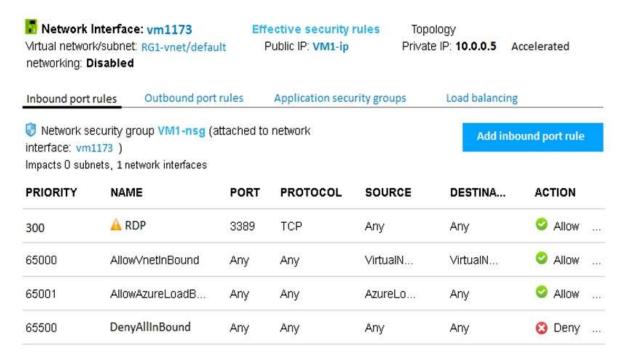
### **Explanation/Reference:**

### **QUESTION 46**

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.)



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

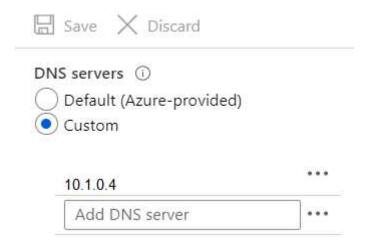
### **QUESTION 47**

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/S	
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.



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 48**

**HOTSPOT** 

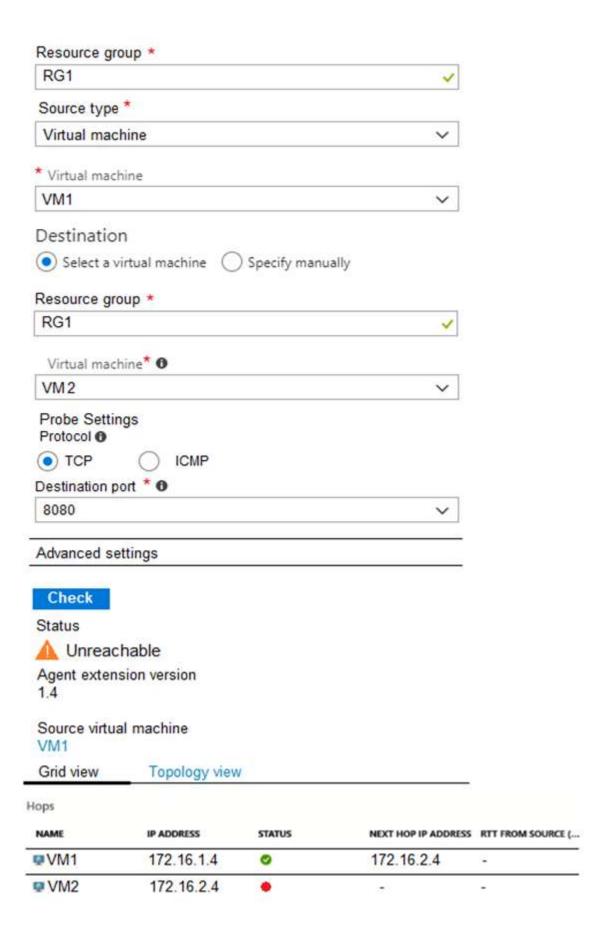
You have an Azure subscription that contains the Azure virtual machines shown in the following table.

Name	Connected to subnet
VM1	172.16.1.0/24
VM2	172.16.2.0/24

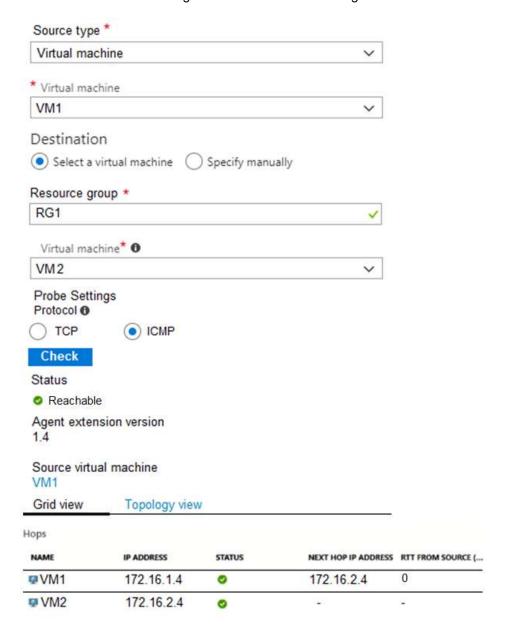
You add inbound security rules to a network security group (NSG) named NSG1 as shown in the following table.

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.



You run Network Watcher again as shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
NSG1 limits VM1 traffic	0	0
NSG1 applies to VM2	0	0
VM1 and VM2 connect to the same virtual network	0	0
Correct Answer:		
Answer Area		
Statements	Yes	No
NSG1 limits VM1 traffic	0	0
NSG1 applies to VM2	0	0
VM1 and VM2 connect to the same virtual network	0	0

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 49**

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 50**

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

Name	Туре		
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 51**

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:**

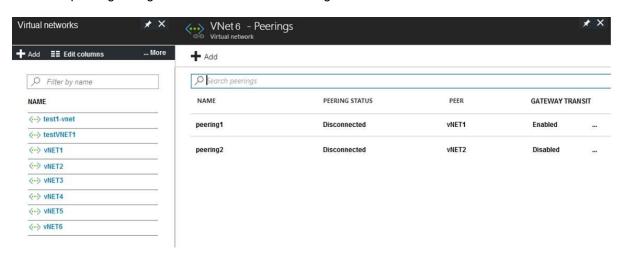
Reference:

https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal

# **QUESTION 52**

**HOTSPOT** 

You have peering configured as shown in the following exhibit.



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

NOTE: Each correct selection is worth one point.

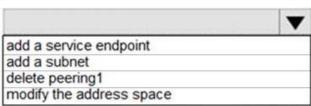
### Hot Area:

# **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].



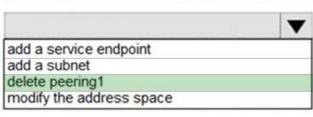
# **Correct Answer:**

# **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].



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 53**

**HOTSPOT** 

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

Name	Туре	
VM1	Virtual machine	
VM2	Virtual machine	
LB1	Load balancer (Basic SKU)	

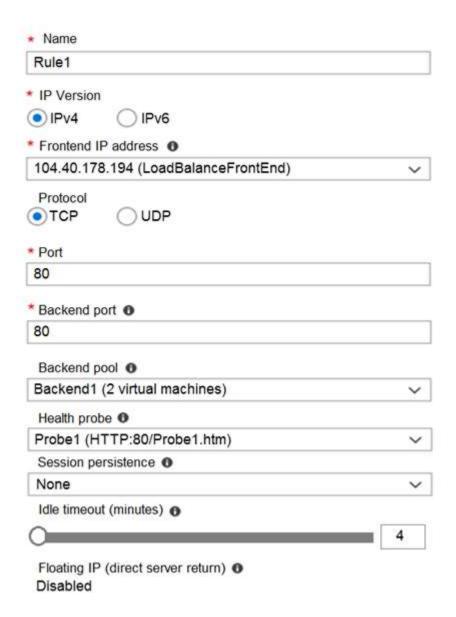
You install the Web Server server role (IIS) on VM1 and VM2, and then add VM1 and VM2 to LB1.

LB1 is configured as shown in the **LB1** exhibit. (Click the **LB1** tab.)

Essent	tial	S	^

Resource group (change) Backend pool Backend1 (2 virtual machines) VMRG Location Health probe West Europe Probe1(HTTP:80/Probe1.htm) Subscription name (change) Load balancing rule Azure Pass Rule1 (TCP/80) Subscription ID NAT rules e65d2b22-fde8 SKU Public IP address Basic 104.40.178.194 (LB1)

Rule1 is configured as shown in the Rule1 exhibit. (Click the Rule1 tab.)



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.	0	0
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	0	0
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	0	0

#### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
VM1 is in the same availability set as VM2.	0	0
If Probe1.htm is present on VM1 and VM2, LB1 will balance TCP port 80 between VM1 and VM2.	0	0
If you delete Rule1, LB1 will balance all the requests between VM1 and VM2 for all the ports.	0	0

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 54**

**HOTSPOT** 

You have an Azure virtual machine named VM1 that connects to a virtual network named VNet1. VM1 has the following configurations:

Subnet: 10.0.0.0/24Availability 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:

Before you can connect to VM1 from 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

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:

Before you can connect to VM1 from 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

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 55**

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

Name	Туре	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

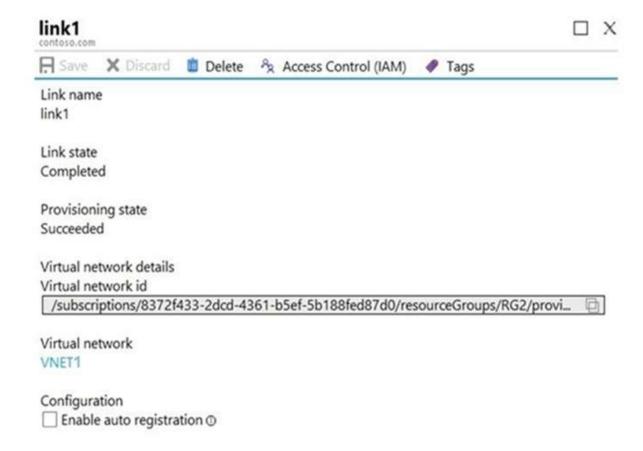
#### **QUESTION 56**

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 controso.com, you create a virtual network link named link1 as shown in the exhibit. (Click the Exhibit tab.)



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:

 $\underline{\text{https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-name-resolution-for-vms-and-role-instances}$ 

## **QUESTION 57**

**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

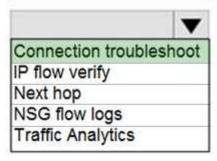
**Correct Answer:** 

# **Answer Area**

Task1:

IP flow verify
Next hop
Packet capture
Security group view
Traffic Analytics

Task2:



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 58**

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.



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.	0	0
VM2 connects to 193.77.134.10 for DNS queries.	0	0
VM3 connects to 192.168.10.15 for DNS queries.	0	0

#### **Correct Answer:**

# **Answer Area**

Statements	Yes	No
VM1 connects to 193.77.134.10 for DNS queries.	0	0
VM2 connects to 193.77.134.10 for DNS queries.	0	0
VM3 connects to 192.168.10.15 for DNS queries.	0	0

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-fag#name-resolution-dns

# **QUESTION 59**

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	Туре	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.

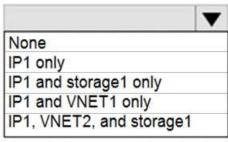
Which resources should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

#### Hot Area:

# **Answer Area**

Resources that you can move from RG1 to RG2:



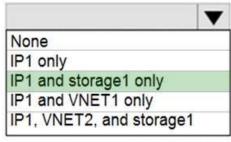
Resources that you can move from RG2 to RG1:

None	
IP2 only	
IP2 and storage2 only	
IP2 and VNET2 only	
IP2, VNET2, and storage:	2

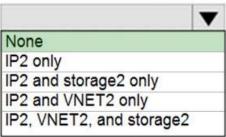
**Correct Answer:** 

# **Answer Area**

Resources that you can move from RG1 to RG2:



Resources that you can move from RG2 to RG1:



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 60**

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: LB1Type: InternalSKU: 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 61**

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: LB1Type: InternalSKU: 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 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: LB1Type: InternalSKU: 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 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 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.

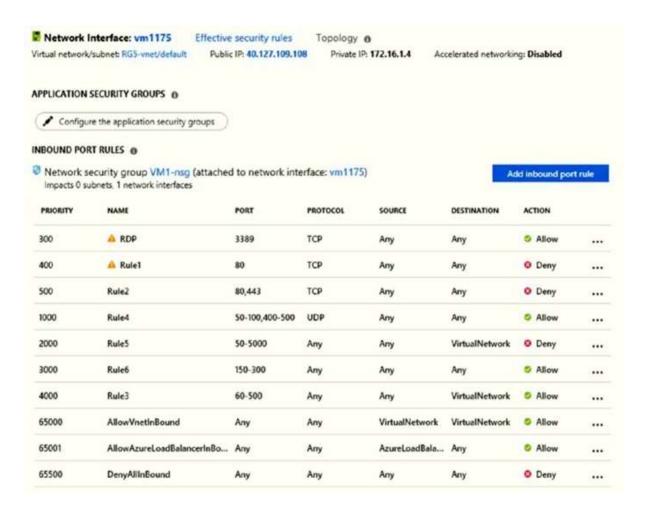
## Reference:

https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site

# **QUESTION 64**

You have an Azure virtual machine named VM1.

The network interface for VM1 is configured as shown in the exhibit. (Click the **Exhibit** tab.)



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. Create a new inbound rule that allows TCP protocol 443 and configure the rule to have a priority of 501.

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.

#### Note:

There are several versions of this question in the exam. The question has two possible correct answers:

- 1. Change the priority of Rule3 to 450.
- 2. For Rule5, change the Action to Allow and change the priority to 401.

Other incorrect answer options you may see on the exam include the following:

- Modify the action of Rule1.
- Change the priority of Rule6 to 100.
- For Rule4, change the protocol from UDP to Any.

#### Reference:

https://docs.microsoft.com/en-us/azure/virtual-network/network-security-groups-overview

#### **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 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:**

Explanation:

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 66**

**HOTSPOT** 

You manage two Azure subscriptions named Subscription1 and Subscription2.

Subscription1 has following virtual networks:

Name	Address space	Location
VNET1	10.10.10.0/24	West Europe
VNET2	172.16.0.0/16	West US

The virtual networks contain the following subnets:

Name	Address space	In virtual network
Subnet11	10.10.10.0/24	VNET1
Subnet21	172.16.0.0/18	VNET2
Subnet22	172.16.128.0/18	VNET2

Subscription2 contains the following virtual network:

Name: VNETA

Address space: 10.10.128.0/17Location: Canada Central

VNETA contains the following subnets:

Name	Address space
SubnetA1	10.10.130.0/24
SubnetA2	10.10.131.0/24

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
A Site-to-Site connection can be established between VNET1 and VNET2.	0	0
VNET1 and VNET2 can be peered.	0	0
VNET1 and VNETA can be peered.	0	0

# **Correct Answer:**

# Answer Area

Statements	Yes	No
A Site-to-Site connection can be establi between VNET1 and VNET2.	shed O	0
VNET1 and VNET2 can be peered.	0	0
VNET1 and VNETA can be peered.	0	0

Section: (none) Explanation

## **Explanation/Reference:**

Explanation:

Box 1: Yes

With VNet-to-VNet you can connect Virtual Networks in Azure across different regions.

#### Box 2: Yes

Azure supports the following types of peering:

- Virtual network peering: Connect virtual networks within the same Azure region.
- Global virtual network peering: Connecting virtual networks across Azure regions.

Box 3: No

The virtual networks you peer must have non-overlapping IP address spaces.

#### Reference:

https://azure.microsoft.com/en-us/blog/vnet-to-vnet-connecting-virtual-networks-in-azure-across-different-regions/

https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints

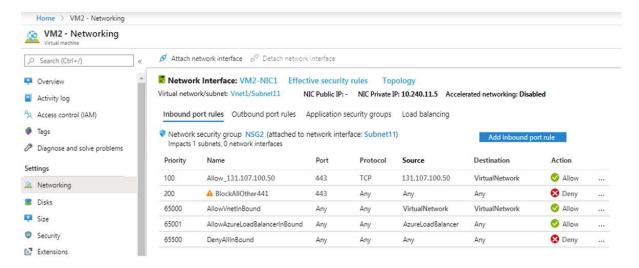
## **QUESTION 67**

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 app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.



You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You create an inbound security rule that denies all traffic from the 131.107.100.50 source and has a cost of 64999.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B Section: (none) Explanation

#### **Explanation/Reference:**

Reference:

https://fastreroute.com/azure-network-security-groups-explained/

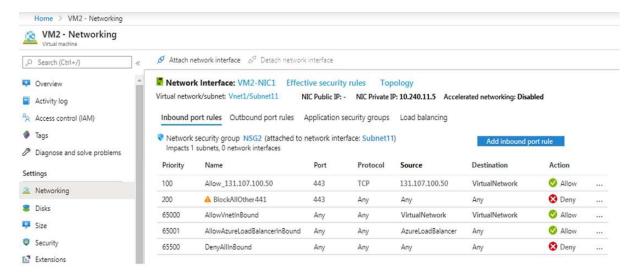
#### **QUESTION 68**

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 app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.



You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You delete the BlockAllOther443 inbound security rule.

Does this meet the goal?

A. Yes B. No

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

Reference:

https://fastreroute.com/azure-network-security-groups-explained/

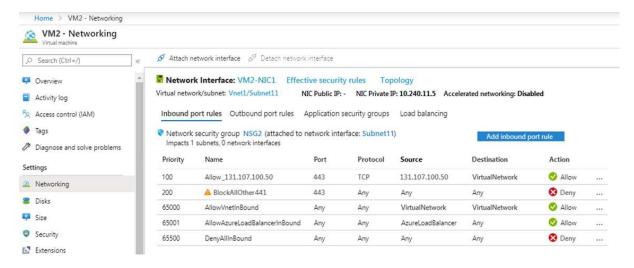
#### QUESTION 69

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 app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.



You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You modify the priority of the Allow\_131.107.100.50 inbound security rule.

Does this meet the goal?

A. Yes B. No

Correct Answer: B Section: (none) Explanation

## **Explanation/Reference:**

Explanation:

The rule currently has the highest priority.

#### Reference:

https://fastreroute.com/azure-network-security-groups-explained/

#### **QUESTION 70**

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:**

Explanation:

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 71**

You have an Azure subscription.

You plan to deploy an Azure Kubernetes Service (AKS) cluster to support an app named App1. On-premises clients connect to App1 by using the IP address of the pod.

For the AKS cluster, you need to choose a network type that will support App1.

What should you choose?

- A. kubenet
- B. Azure Container Networking Interface (CNI)
- C. Hybrid Connection endpoints
- D. Azure Private Link

Correct Answer: B Section: (none) Explanation

#### **Explanation/Reference:**

Explanation:

With Azure CNI, every pod gets an IP address from the subnet and can be accessed directly. These IP addresses must be unique across your network space.

#### **Incorrect Answers:**

A: The kubenet networking option is the default configuration for AKS cluster creation. With kubenet, nodes get an IP address from the Azure virtual network subnet. Pods receive an IP address from a logically different address space to the Azure virtual network subnet of the nodes. Network address translation (NAT) is then configured so that the pods can reach resources on the Azure virtual network.

C, D: AKS only supports Kubenet networking and Azure Container Networking Interface (CNI) networking

# Reference:

https://docs.microsoft.com/en-us/azure/aks/concepts-network

#### **QUESTION 72**

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: LB1Type: InternalSKU: Standard

Virtual network: VNET1

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.

Solution: You disassociate the public IP address from the network interface of VM2.

Does this meet the goal?

A. Yes B. No

Correct Answer: B Section: (none) Explanation

**Explanation/Reference:** 

# Configure and manage virtual networking

#### **Testlet 2**

# **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.

#### **QUESTION 1**

**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

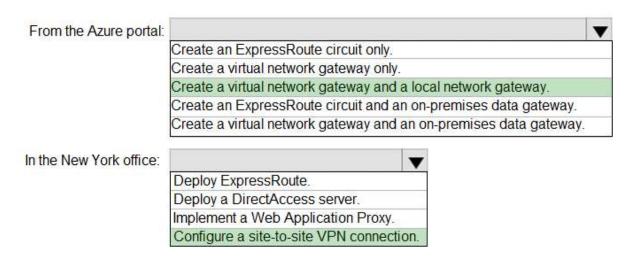
Create an ExpressRoute circuit only.
Create a virtual network gateway only.
Create a virtual network gateway and a local network gateway.
Create an ExpressRoute circuit and an on-premises data gateway.
Create a virtual network gateway and an on-premises data gateway.
Create a virtual network gateway 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**



Section: (none) Explanation

# Explanation/Reference:

Explanation:

Box 1: Create a virtual network gateway and a local network gateway.

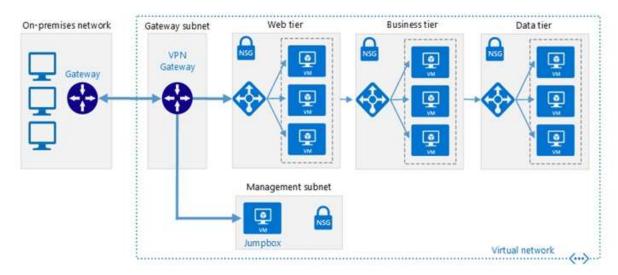
Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

- 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

# Configure and manage virtual networking

#### **Testlet 3**

# 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

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#### 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.

#### **QUESTION 1**

**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.

Hot Area:

# **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:

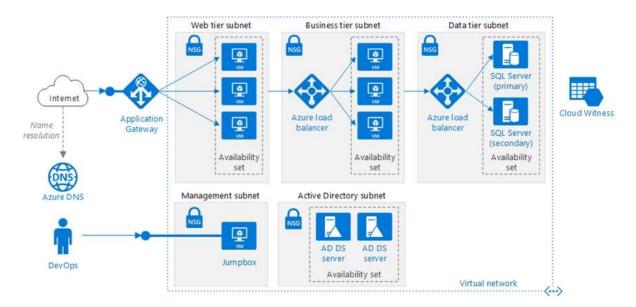
	■
1	
2	
3	

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 2**

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.

# Monitor and back up Azure resources

#### **Question Set 1**

#### **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 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 2**

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 3**

**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.

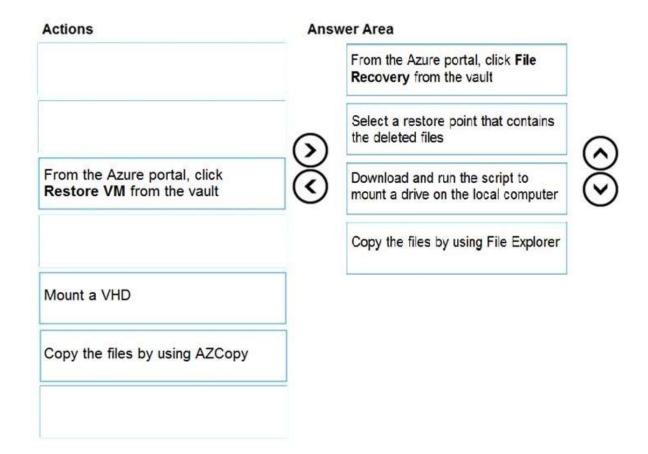
You need to restore the deleted files to an on-premises Windows Server 2016 computer as quickly as possible.

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:**

# 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 Restore VM from the vault From the Azure portal, click File Recovery 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:

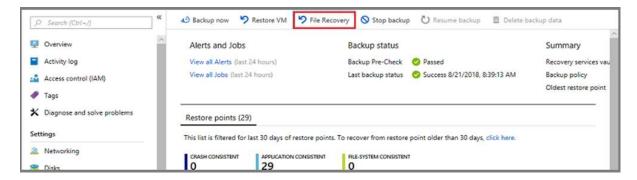
# Step 4: Copy the files using File Explorer!

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 File Recovery menu opens.

# Home > Virtual machines > myVMH1 | Backup >

# File Recovery

myvmh1

✓ Step 1: Select recovery point

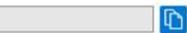
8/2/2020, 11:31:09 AM [Latest] (Cras... 🗸

→ 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 4**

**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.

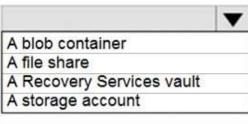
**NOTE:** Each correct selection is worth one point.

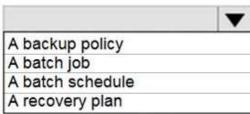
#### Hot Area:

# **Answer Area**

Location in which to store the backups:

Object to use to configure the protection for VM1:





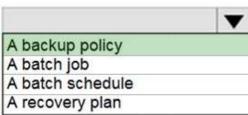
# **Correct Answer:**

# 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:



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 5**

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 tule, 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 6**

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?

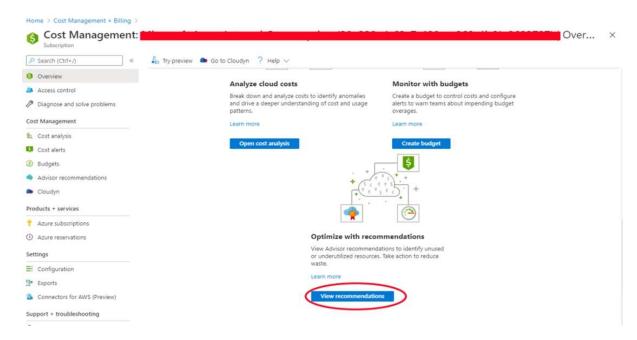
- A. From Azure Cost Management, view Cost Analysis
- B. From Azure Advisor, modify the Advisor configuration
- C. From Microsoft Azure Storage Explorer, view the Account Management properties
- D. From Azure Cost Management, view Advisor Recommendations

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:



# 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/

#### **QUESTION 7**

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 8**

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:**

Explanation:

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:

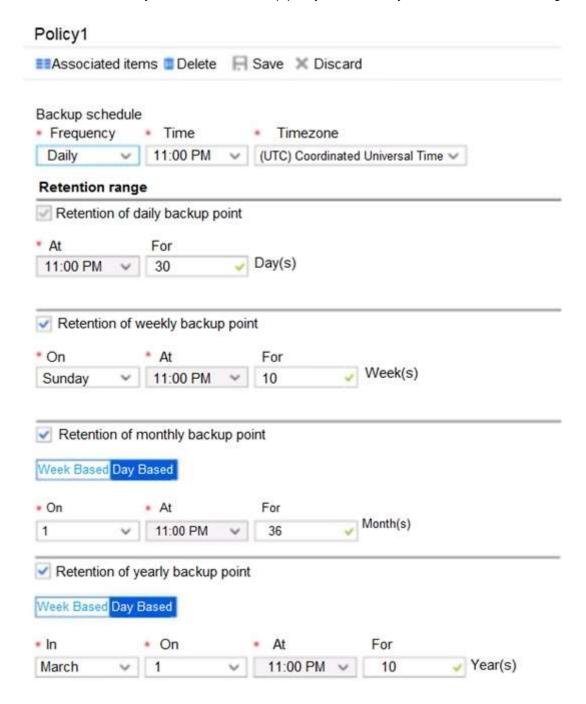
https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix-iaas

https://docs.microsoft.com/en-us/azure/virtual-machines/linux/endorsed-distros

# **QUESTION 9**

**HOTSPOT** 

You create a Recovery Services vault backup policy named Policy1 as shown in the following exhibit:



Use the drop-down menus to select the answer choice that completes each statement based on the

information presented in the graphic.

NOTE: Each correct selection is worth one point.

#### 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].



#### **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].



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 10**

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:**

Explanation:

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 11**

**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	Туре	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:

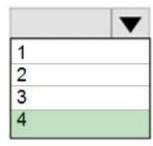
# **Answer Area**

Alert rules:	▼	,
	1	Ī
	2	ī
	3	
	4	Ī
Action groups:		
Action groups:		•
Action groups:	1	
Action groups:	1 2	,
Action groups:	1 2 3	,

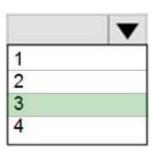
**Correct Answer:** 

# **Answer Area**

Alert rules:



Action groups:



Section: (none) Explanation

**Explanation/Reference:** 

# **QUESTION 12**

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

Name	Туре	Member of
User1	User	None
User2	User	Group1
Principal1	Managed identity	None
Principal2	Managed identity	Group1

User1, Principal1, and Group1 are assigned the Monitoring Reader role.

An action group named AG1 has the Email Azure Resource Manager Role notification type and is configured to email the Monitoring Reader role.

You create an alert rule named Alert1 that uses AG1.

You need to identity who will receive an email notification when Alert1 is triggered.

Who should you identify?

- A. User1 and Principal1 only
- B. User1, User2, Principal1, and Principal2

- C. User1 only
- D. User1 and User2 only

Correct Answer: C Section: (none) Explanation

# **Explanation/Reference:**

Explanation:

Email will only be sent to Azure AD user members of the Monitoring Reader role. Email will not be sent to Azure AD groups or service principals.

# Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/action-groups

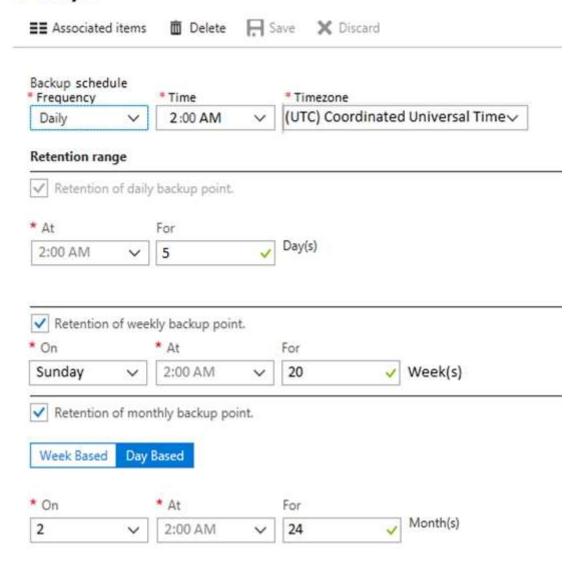
# **QUESTION 13**

**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



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

 $\frac{https://social.technet.microsoft.com/Forums/en-US/854ab6ae-79aa-4bad-ac65-471c4d422e94/daily-monthly-yearly-recovery-points-and-storage-used? forum=windowsazureonlinebackup$ 

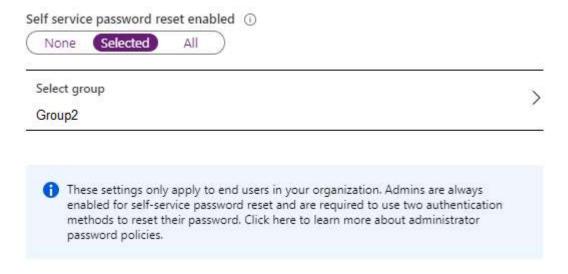
#### **QUESTION 14**

**HOTSPOT** 

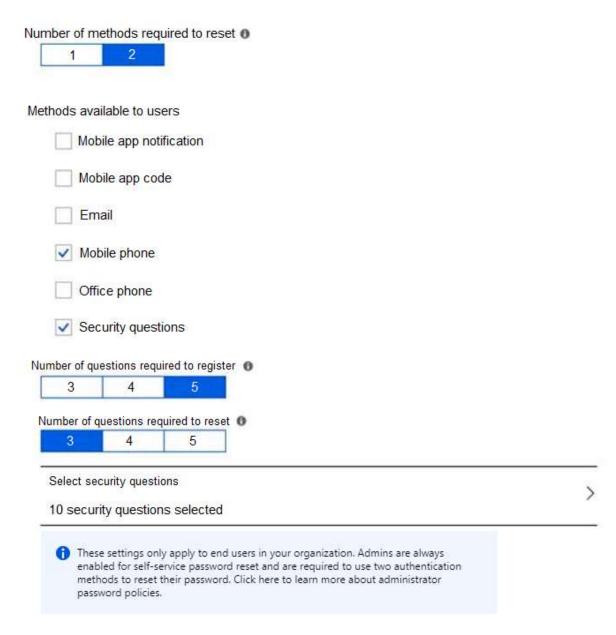
You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains the users shown in the following table.

Name	Member of	Role assigned
User1	Group1	None
User2	Group2	None
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.)



You configure the authentication methods for password reset as shown in the Authentication Methods exhibit. (Click the **Authentication Methods** tab.)



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.	0	0
	If User1 forgets her password, she can reset the password by using the mobile phone app.	0	0
	User3 can add security questions to the password reset process	0	0
Correct An	51 and 100 51 x 10		
Answ	er Area		
	Statements	Yes	No
	After User2 answers three security questions, he can reset his password immediately.	0	0
	If User1 forgets her password, she can reset the password by using the mobile phone app.	0	0
	User3 can add security questions to the password reset process	0	0

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-fag

# **QUESTION 15**

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/

# Monitor and back up Azure resources

#### **Testlet 2**

# **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	Туре
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.

#### **QUESTION 1**

**HOTSPOT** 

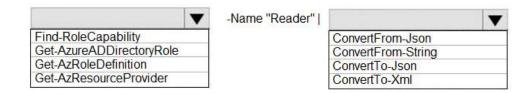
You need to implement Role1.

Which command should you run before you create Role1? To answer, select the appropriate options in the answer area.

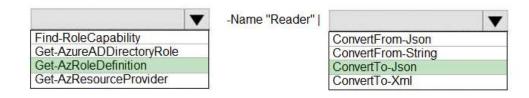
**NOTE:** Each correct selection is worth one point.

#### Hot Area:

#### **Answer Area**



# Correct Answer: Answer Area



Section: (none) Explanation

# **Explanation/Reference:**

#### **QUESTION 2**

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