



Reference Solution for az-104.vce AZ-104

ExamLabs

AZ-104

Microsoft Azure Administrator

Version 11.0

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Score: 800/1000

Version: n/A

Time 0 Minutes
Limit:

Manage Azure identities and governance (46 questions)

Case Study (2 questions)

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 47

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.

Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

Solution:

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 48

You need to meet the user requirement for Admin1.

What should you do?

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

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>

Question 1

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

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

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

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

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

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

Solution: You instruct User2 to create the user accounts.

Does that meet the goal?

- Yes
- No

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	Azure Active Directory
User4	Owner	Azure Subscription

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

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

Solution: You instruct User4 to create the user accounts.

Does that meet the goal?

- Yes
- No

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?

- Yes
- No

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.

Answer Area

To add a backend pool to LB1:

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

To add a health probe to LB2:

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

Solution:

Answer Area

To add a backend pool to LB1:

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

To add a health probe to LB2:

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

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?

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

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 Microsoft 365 group that uses the Assigned membership type
- a Security group that uses the Assigned membership type
- a Microsoft 365 group that uses the Dynamic User membership type
- a Security group that uses the Dynamic User membership type
- a Security group that uses the Dynamic Device membership type

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:

Create an access review

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

* Review name

Description

* Start date

Frequency

Duration (in days)

End End by Occurrences

* Number of times

* End date

Users

Users to review

Scope Guest users only Everyone

* Group

Reviewers

Reviewers

Programs

Link to program

Default program

Upon completion settings

Advanced settings

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
User3 can perform an access review of User1	<input type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserA	<input type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserB	<input type="radio"/>	<input type="radio"/>

Solution:

Answer Area

Statements	Yes	No
User3 can perform an access review of User1	<input checked="" type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserA	<input checked="" type="radio"/>	<input type="radio"/>
User3 can perform an access review of UserB	<input type="radio"/>	<input checked="" type="radio"/>

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	<i>Not applicable</i>
ManagementGroup11	Tenant Root Group
ManagementGroup12	Tenant Root Group
ManagementGroup21	ManagementGroup11

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

Name	Management group
Subscription1	ManagementGroup21
Subscription2	ManagementGroup12

You create the Azure policies shown in the following table:

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

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

NOTE: Each correct selection is worth one point.

Answer Area

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

Solution:**Answer Area**

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

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:

SCOPE

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

Exclusions

Subscription 1/ContosoRG1

BASICS

* Policy definition
Not allowed resource types

* Assignment name ⓘ
Not allowed resource types

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

Description

Assigned by

admin1@contoso.com

PARAMETERS

* Not allowed resource types ⓘ
Microsoft.Sql/servers

What is the effect of the policy?

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

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

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

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

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

You deploy a virtual network named VNET2 to RG6.

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

NOTE: Each correct selection is worth one point.

Answer Area

VNET1:

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

VNET2:

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

Solution:

Answer Area

VNET1:

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

VNET2:

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

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

You create a new Azure subscription named AZPT2.

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

Which resources should you identify?

- VM1, storage1, VNET1, and VM1Managed only
- VM1 and VM1Managed only
- VM1, storage1, VNET1, VM1Managed, and RVAULT1
- RVAULT1 only

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?

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

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?

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

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:

<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?

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

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?

- Create an automation runbook
- Deploy a function app
- Deploy the IT Service Management Connector (ITSM)
- Create a notification

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?

- Device settings from the Devices blade
- Providers from the MFA Server blade
- User settings from the Users blade
- General settings from the Groups blade

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.

Answer Area

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

Solution:**Answer Area**

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

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	Type	Location
VM1	Virtual machine	North Europe
RGV1	Recovery Services vault	North Europe
SQLD01	SQL server in Azure VM	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?

- Delete VM1
- Stop VM1
- Stop the backup of SQLDB01
- Delete sa001

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?

- Remove User1 from the Security Reader role for Subscription1. Assign User1 the Contributor role for Subscription1.
- Assign User1 the User Access Administrator role for VNet1.
- Assign User1 the Network Contributor role for VNet1.
- Assign User1 the Network Contributor role for RG1.

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?

- MX
- NSEC
- PTR
- RRSIG

Explanation/Reference

Explanation:

To verify your custom domain name (example)

1. Sign in to the Azure portal using a Global administrator account for the directory.
2. Select Azure Active Directory, and then select Custom domain names.
3. On the Fabrikam - Custom domain names page, select the custom domain name, Contoso.
4. On the Contoso page, select Verify to make sure your custom domain is properly registered and is valid for Azure AD. Use either the TXT or the MX record type.

Note:

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

1. MX
2. TXT

The question can also 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?

- Yes
- No

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?

- Yes
- No

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?

- Yes
- No

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.

Actions**Answer Area**

Assign a tag to each resource group.

Assign a tag to each resource.

Download the usage report.

From the Cost analysis blade, filter the view by tag.

Open the **Resource costs** blade of each resource group.Solution:**Actions****Answer Area**

Assign a tag to each resource group.

Assign a tag to each resource.

Assign a tag to each resource.

From the Cost analysis blade, filter the view by tag.

Download the usage report.

Download the usage report.



From the Cost analysis blade, filter the view by tag.

Open the **Resource costs** blade of each resource group.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 event from a table named Event.

Which query should you run in Workspace1?

- Get-Event Event | where {\$_.EventType == "error"}
- search in (Event) "error"
- select * from Event where EventType == "error"
- Get-Event Event | where {\$_.EventTye -eq "error"}

Explanation/Reference

Explanation:

To search a term in a specific table, add the table-name just after the search operator

Note:

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

1. search in (Event) "error"

2. Event | search "error"

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

1. select * from Event where EventType is "error"
2. Event | where EventType is "error"
3. search in (Event) * | where EventType -eq "error"

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>

<https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/searchoperator?pivots=azuredatexplorer>

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

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

NOTE: Each correct selection is worth one point.

Answer Area

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

Solution:

Answer Area

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

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?

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

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.

Answer Area

"assignableScopes": [

```
"/"
"/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e"
"/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"
```

],
"permissions": [
{

 "actions": [
 "*

```
],
"additionalProperties": {},
"dataActions": [],
"notActions": [  
    "Microsoft.Authorization/*"  
    "Microsoft.Resources/*"  
    "Microsoft.Security/*"
```

],
"notDataActions": []
}

Solution:

Answer Area

```
"assignableScopes": [
```

```
    "/",
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e",
    "/subscriptions/c276fc76-9cd4-44c9-99a7-4fd71546436e/resourceGroups"
```

```
],
```

```
"permissions": [
```

```
{
```

```
    "actions": [
```

```
        "*"
    ],
    "additionalProperties": {},
    "dataActions": [],
    "notActions": [
```

```
        "Microsoft.Authorization/*",
        "Microsoft.Resources/*",
        "Microsoft.Security/*"
```

```
],
    "notDataActions": []
}
```

```
]
```

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.

- an internal load balancer
- a public load balancer
- an Azure Content Delivery Network (CDN)
- Traffic Manager
- an Azure Application Gateway

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?

- Monitor
- Advisor
- Metrics
- Customer insights

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.

Answer Area

* Name

Policy1



Assignments

Users and groups



0 users and groups selected

Cloud apps



0 cloud apps selected

Conditions



0 conditions selected

Access controls

Grant



0 controls selected

Session



0 controls selected

Enable policy

On

Off

Answer Area

* Name

Policy1



Assignments

Users and groups



0 users and groups selected

Cloud apps



0 cloud apps selected

Conditions



0 conditions selected

Access controls

Grant



0 controls selected

Session



0 controls selected

Enable policy

On

Off

Solution:

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?

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

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?

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

Explanation/Reference

Explanation:

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

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

Note:

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

Reference:

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

Question 34

HOTSPOT

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

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

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.

Answer Area

User1:

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

User2:

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

Answer Area

User1:	▼
Group1 only	
Group2 only	
Group3 only	
Group1 and Group2 only	
Group1 and Group3 only	
Group2 and Group3 only	
Group1, Group2, and Group3	

User2:	▼
Group1 only	
Group2 only	
Group3 only	
Group1 and Group2 only	
Group1 and Group3 only	
Group2 and Group3 only	
Group1, Group2, and Group3	

Solution:

Explanation/Reference

Explanation:

Box 1: Group 1 only

First rule applies

Box 2: Group1 and Group2 only

Both membership rules apply.

Reference:

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

Question 35

HOTSPOT

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

JobTitle:

User1 only

User1 and User2 only

User1 and User3 only

User1, User2, and User3

UsageLocation:

User1 only

User1 and User2 only

User1 and User3 only

User1, User2, and User3

Answer Area

JobTitle:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

UsageLocation:

User1 only
User1 and User2 only
User1 and User3 only
User1, User2, and User3

Solution:

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?

- Yes
- No

Explanation/Reference

Explanation:

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

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

Reference:

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

Question 37

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

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

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

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

Does this meet the goal?

- Yes
- No

Explanation/Reference

Explanation:

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

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

Reference:

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

Question 38

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

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

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

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

Does this meet the goal?

- Yes
- No

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?

- Owner
- Virtual Machine Contributor
- Contributor
- Virtual Machine Administrator Login

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](#)

The screenshot shows the 'Access Control' blade in the Azure portal. At the top, there are three filter sections: 'Name' (with a search bar), 'Type' (set to 'All'), and 'Role' (set to 'Owner'). Below these are two dropdown menus: 'Scope' (set to 'All scopes') and 'Group by' (set to 'Role'). A large search bar says 'Search for a role'. Underneath, there's a checkbox for 'Select all' and another for 'Owner'. The main table lists one item:

1 items (1 Users)				
<input type="checkbox"/>	NAME	TYPE	ROLE	SCOPE
	OWNER			
	Admin3 Admin3@contltd...	User	Owner (1)	This resource

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

 Save  Discard

Directory properties

* Name

Cont190525outlook



Country or region

Slovenia

Location

EU Model Clause compliant datacenters

Notification language

English



Directory ID

a93d91a6-faca-4fa6-a749-f6c25469152e



Technical contact



Global privacy contact



Privacy statement URL



Access management for Azure resources

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

Yes

No

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
Admin1 can add Admin 2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>
Admin3 can add Admin 2 as an owner of the subscription.	<input type="radio"/>	<input type="radio"/>
Admin2 can create a resource group in the subscription.	<input type="radio"/>	<input type="radio"/>

Solution:**Answer Area**

Statements	Yes	No
Admin1 can add Admin 2 as an owner of the subscription.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Admin3 can add Admin 2 as an owner of the subscription.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Admin2 can create a resource group in the subscription.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?

- From the Azure portal, modify the Managed Identity settings of VM1
 - From the Azure portal, modify the Access control (IAM) settings of RG1
 - From the Azure portal, modify the Access control (IAM) settings of VM1
 - From the Azure portal, modify the Policies settings of RG1

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/configure-portal-windows-vm>

Question 42

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

You use TestRG to validate an Azure deployment.

TestRG contains the following resources:

Name	Type	Description
VM1	Virtual Machine	VM1 is running and configured to back up to Vault1 daily
Vault1	Recovery Services Vault	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?

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

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?

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

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>

Question 44

DRAG DROP

You have an Azure Active Directory (Azure AD) tenant that has the contoso.onmicrosoft.com domain name.

You have a domain name of contoso.com registered at a third-party registrar.

You need to ensure that you can create Azure AD users that have names containing a suffix of @contoso.com.

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.

Actions

Add a record to the public contoso.com DNS zone

Add an Azure AD tenant

Configure company branding

Create an Azure DNS zone

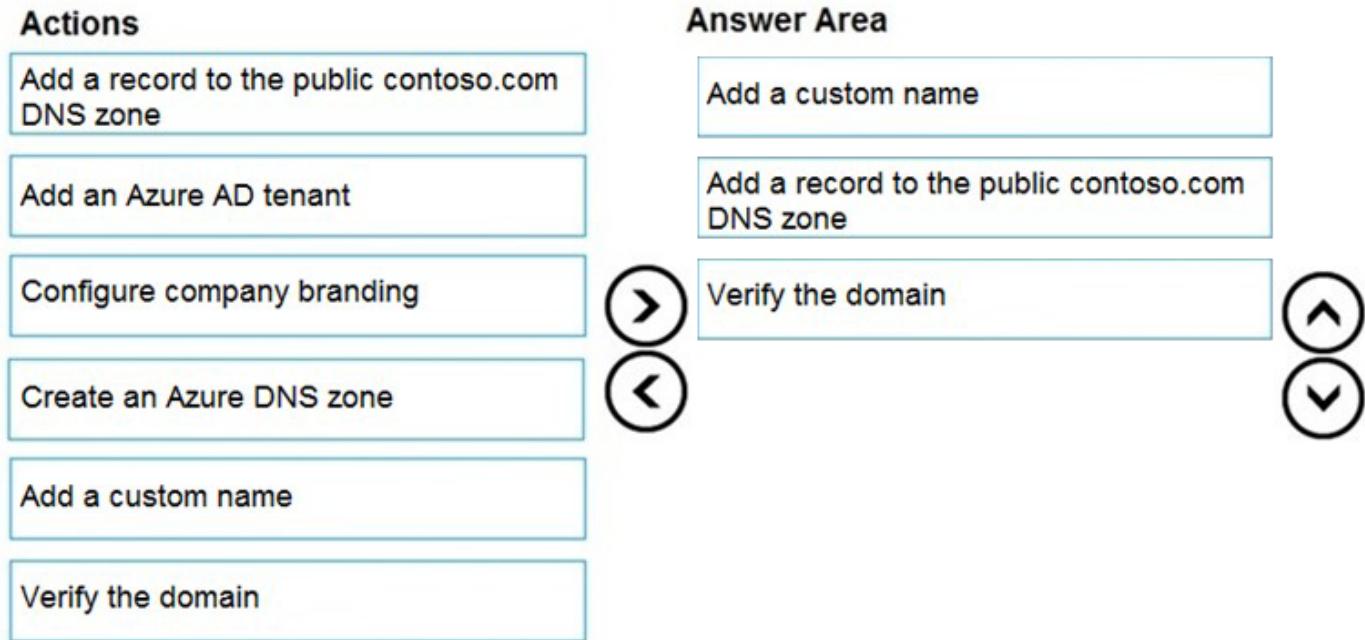
Add a custom name

Verify the domain

Answer Area



Solution:



Explanation/Reference

Explanation:

1. Add the custom domain name to your directory
2. Add a DNS entry for the domain name at the domain name registrar
3. Verify the custom domain name in Azure AD

Reference:

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

Question 45

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

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

Which query should you run in Workspace1?

- Get-Event Event | where {\$_.EventType == "error"}
- Event | search "error"
- select * from Event where EventType == "error"
- Event | where EventType is "error"

Explanation/Reference

Explanation:

The search operator provides a multi-table/multi-column search experience.

The syntax is:

Table_name | search "search term"

Note:

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

1. search in (Event) "error"
2. Event | search "error"
3. Event | where EventType == "error"

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

1. Get-Event Event | where {\$_.EventType -eq "error"}
2. select * from Event where EventType is "error"
3. search in (Event) * | where EventType -eq "error"

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>

<https://docs.microsoft.com/en-us/azure/data-explorer/kusto/query/searchoperator?pivots=azuredatexplorer>

Question 46

You have a registered DNS domain named contoso.com.

You create a public Azure DNS zone named contoso.com.

You need to ensure that records created in the contoso.com zone are resolvable from the internet.

What should you do?

- Create NS records in contoso.com.
- Modify the SOA record in the DNS domain registrar.
- Create the SOA record in contoso.com.
- Modify the NS records in the DNS domain registrar.

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/dns/dns-delegate-domain-azure-dns>

Implement and manage storage (39 questions)

Case Study (3 questions)

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 88

You need to implement a backup solution for App1 after the application is moved.

What should you create first?

- a recovery plan
- an Azure Backup Server
- a backup policy
- a Recovery Services vault

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 89

You need to move the blueprint files to Azure.

What should you do?

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

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:

<https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-data-to-azure-blob-using-azure-storage-explorer>

Question 90

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.

Answer Area

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

Solution:

Answer Area

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

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

Case Study (1 questions)

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.

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Overview

Contoso, Ltd. is a consulting company that has a main office in Montreal and branch offices in Seattle and New York.

Environment

Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	None
User2	Guest	None
User3	Member	None
User4	Member	None

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	None

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Requirements

Planned Changes

Contoso plans to implement the following changes:

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ▀ Associate NSG2 to VNET1/Subnet2.

Technical Requirements

Contoso must meet the following technical requirements:

- ▀ Create container1 and share1.
- ▀ Use the principle of least privilege.
- ▀ Create an Azure AD security group named Group4.
- ▀ Back up the Azure file shares and virtual machines by using Azure Backup.
- ▀ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ▀ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ▀ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ▀ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ▀ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.
- ▀ Associate NSG1 to the network interface of VM1.
- ▀ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

- ▀ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ▀ Create a storage account named storage5 and configure storage replication for the Blob service.
- ▀ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Question 91

HOTSPOT

You need to create container1 and share1.

Which storage accounts should you use for each resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

container1:

- storage2 only
- storage2 and storage3 only
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

Answer Area

container1:

- storage2 only
- storage2 and storage3 only
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

Solution:

Explanation/Reference

Reference:

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

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

Question 49

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?

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

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 50

You have an Azure subscription.

In the Azure portal, you plan to create a storage account named storage1 that will have the following settings:

- Performance: Standard
- Replication: Zone-redundant storage (ZRS)
- Access tier (default): Cool
- Hierarchical namespace: Disabled

You need to ensure that you can set Account kind for storage1 to **BlockBlobStorage**.

Which setting should you modify first?

- Performance
- Replication
- Access tier (default)
- Hierarchical namespace

Explanation/Reference

Reference:

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

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

Question 51

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?

- storage1
- storage2
- storage3
- storage4

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 52

HOTSPOT

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

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

<input type="checkbox"/>	NAME	TYPE	KIND	RESOURCE GROUP	LOCATION	SUBSCRIPTION	ACCESS T...	REPLICAT...
<input type="checkbox"/>	storageaccount1	Storage account	Storage	ContosoRG1	East US	Subscription 1	-	Read-access ge...
<input type="checkbox"/>	storageaccount2	Storage account	StorageV2	ContosoRG1	Central US	Subscription 1	Hot	Geo-redundant...
<input type="checkbox"/>	storageaccount3	Storage account	BlobStorage	ContosoRG1	East US	Subscription 1	Hot	Locally-redundant...

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

NOTE: Each correct selection is worth one point.

Answer Area

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

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

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

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

Solution:

Answer Area

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

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

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

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

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 53

You have Azure subscription that includes data in following locations:

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

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

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

Which data should you identify?

- DB1
- container1
- Share1
- Table1

Question 54

HOTSPOT

You have an Azure Storage account named storage1.

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

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

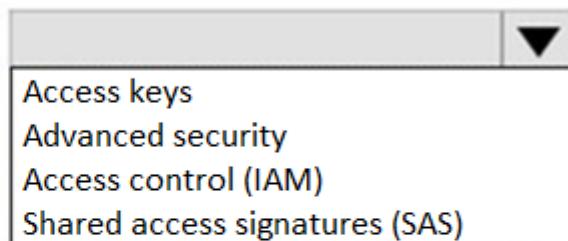
- ▀ Minimize the number of secrets used.
- ▀ Ensure that App2 can only read from storage1 for the next 30 days.

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

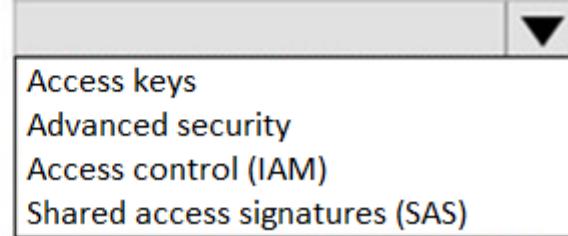
NOTE: Each correct selection is worth one point.

Answer Area

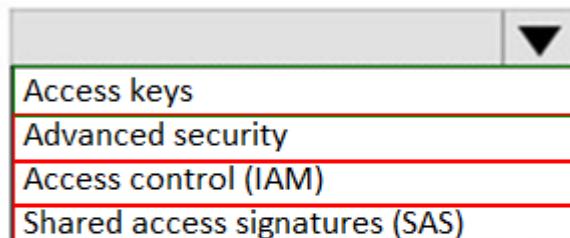
App1:



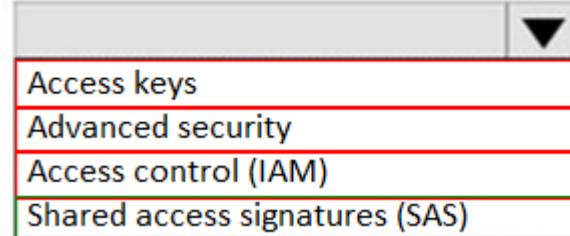
App2:

**Answer Area**

App1:



App2:

Solution: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 55

HOTSPOT

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

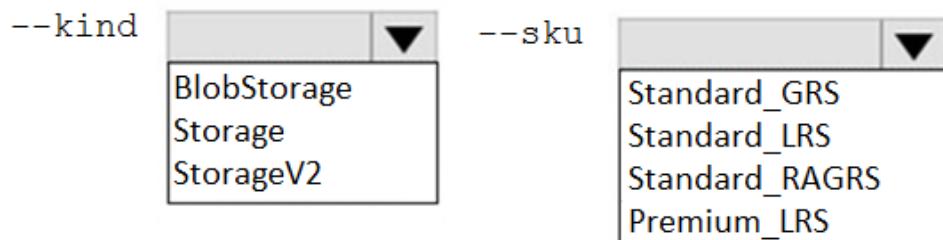
- Minimizes costs
- Supports hot, cool, and archive blob tiers
- Provides fault tolerance if a disaster affects the Azure region where the account resides

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

NOTE: Each correct selection is worth one point.

Answer Area

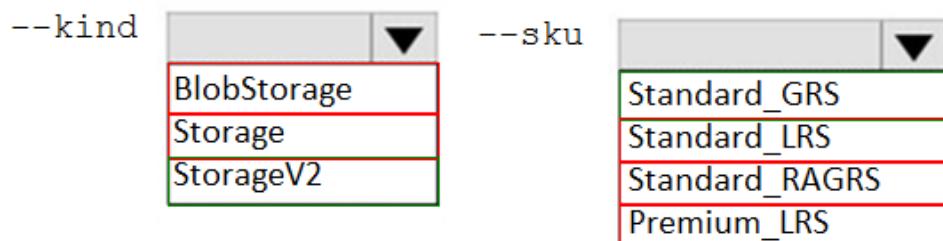
```
az storage account create -g RG1 -n storageaccount1
```



Solution:

Answer Area

```
az storage account create -g RG1 -n storageaccount1
```



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 56

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

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

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

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

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

NOTE: Each correct selection is worth one point.

- Create a container instance
- Register Server1
- Install the Azure File Sync agent on Server1
- Download an automation script
- Create a sync group

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 57

HOTSPOT

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

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

The status of VM1 is **Running**.

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

The screenshot shows the 'Assign Policy' dialog box. At the top, there's a breadcrumb navigation: Home > Policy - Assignments > Assign Policy. Below that is a title bar labeled 'Assign Policy'. The main area is divided into sections:

- SCOPE:** A field labeled 'Scope' with a note 'Learn more about setting the scope'. It contains the value 'Azure Pass/RG2' with a '...' button.
- Exclusions:** A field labeled 'Exclusions' with a note 'Optionally select resources to exempt from the policy assignment'. It contains the value 'Not allowed resource types' with a '...' button.
- BASICS:**
 - A field labeled 'Policy definition' with a note 'Policy definition'. It contains the value 'Not allowed resource types' with a checkmark and a '...' button.
 - A field labeled 'Assignment name' with a note 'Assignment name'. It contains the value 'Not allowed resource types' with a checkmark and a '...' button.
- Description:** A large text input field.
- Assigned by:** A field containing 'First User'.
- PARAMETERS:**
 - A field labeled 'Not allowed resource types' with a note 'Not allowed resource types'. It contains the value '3 selected' with a checkmark and a '...' button.
- At the bottom are two buttons: 'Assign' (blue) and 'Cancel'.

You assign the policy by using the following parameters:

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

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

NOTE: Each correct selection is worth one point.

Answer Area

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

Solution:

Answer Area

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

Explanation/Reference

Question 58

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.

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

Solution:

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

Explanation/Reference

Explanation:

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

Step 1: Attach an external disk to Server1 and then run waimportexport.exe
Determine data to be imported, number of drives you need, destination blob location for your data in Azure storage.

Use the WAImportExport tool to copy data to disk drives. Encrypt the disk drives with BitLocker.

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

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

Step 3: Detach the external disks from Server1 and ship the disks to an Azure data center. Provide the return address and carrier account number for shipping the drives back to you. Ship the disk drives to the shipping address provided during job creation.

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

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

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

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

Reference:

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

Question 59

HOTSPOT

You have Azure subscription that includes following Azure file shares:

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

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

You have the following on-premises servers:

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.

Answer Area

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

Solution:**Answer Area**

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

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 60

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.

Values

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

Answer Area

\ . \

Solution:**Values**

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

Answer Area

\ . \

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:

Connect myazurefileshare >

Connecting from Windows

To connect to this file share from a Windows computer, run this command:

```
> net use [drive letter]
\\myazurefileaccount.file.core.windows.net\myazurefiles
/u:AZURE\myazurefileaccount
mehLWRwJkxSZTBFs8QFd7Xl3qjwF8Tojea2Eu4BfT0e4/aIobuB1upW
```

Reference:

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

Question 61

HOTSPOT

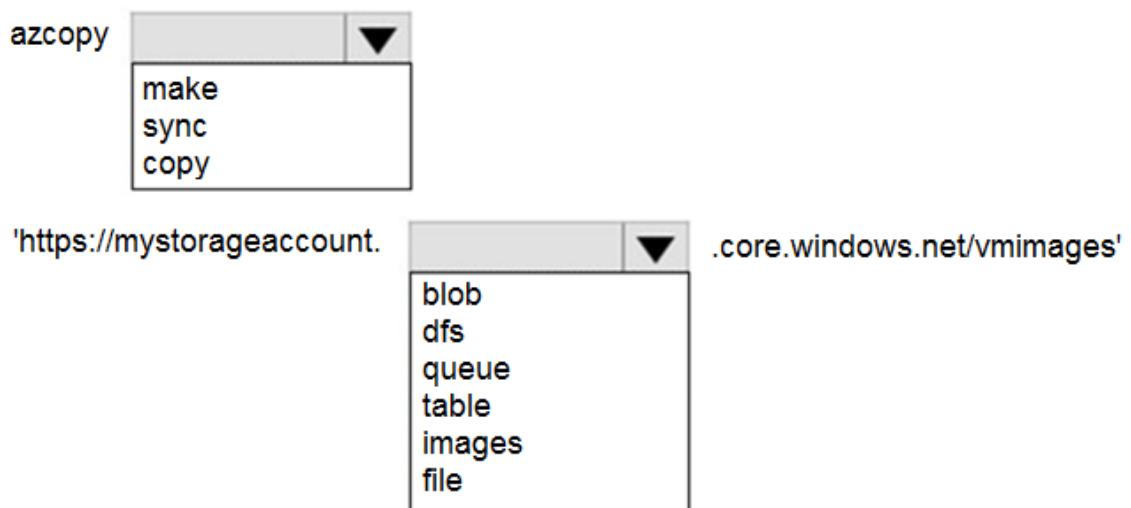
You have an Azure subscription that contains an Azure Storage account.

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.

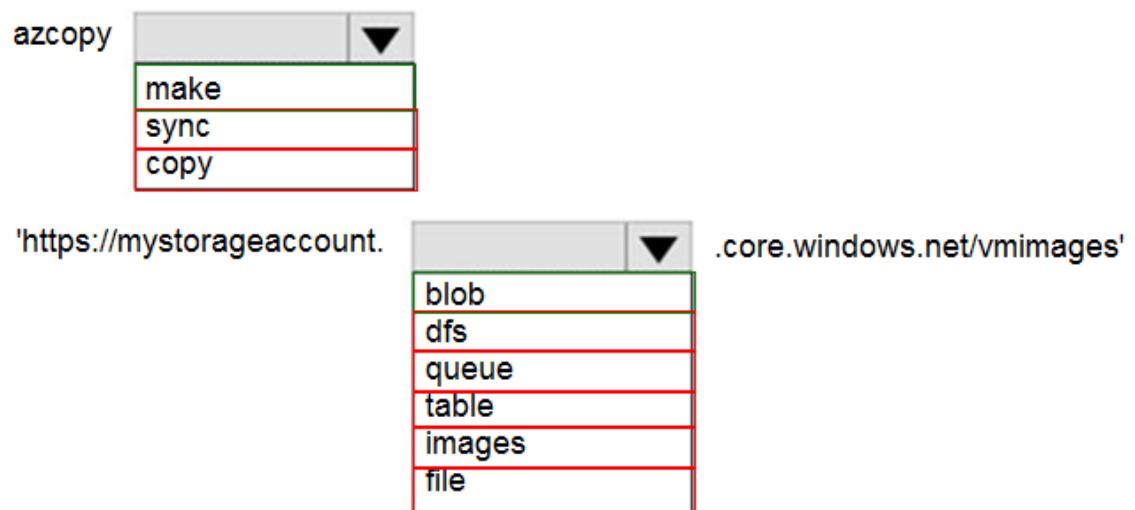
Which command should you run? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Solution:

Answer Area



Explanation/Reference

Question 62

HOTSPOT

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

Name	Type
Endpoint1	Cloud endpoint
Endpoint2	Server endpoint
Endpoint3	Server endpoint

Cloud tiering is enabled for Endpoint3.

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

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

NOTE: Each correct selection is worth one point.

Answer Area

File1:

- Endpoint1 only
- Endpoint3 only
- Endpoint2 and Endpoint3 only
- Endpoint1, Endpoint2, and Endpoint3

File2:

- Endpoint2 only
- Endpoint3 only
- Endpoint2 and Endpoint3 only
- Endpoint1, Endpoint2, and Endpoint3

Solution:

Answer Area

File1:

Endpoint1 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

File2:

Endpoint2 only
Endpoint3 only
Endpoint2 and Endpoint3 only
Endpoint1, Endpoint2, and Endpoint3

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 63

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.

Home > Storage accounts >contoso – Firewalls and virtual networks

contoso – Firewalls and virtual networks

Storage Account

Search (Ctrl + /)

Save Discard

Allow access from

All networks Selected networks

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

Virtual networks

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

VIRTUAL NET...	SUBNET	ADDRESS RA...	ENDPOINT ST...	RESOURCE G...	SUBSCRIPTION
▼ VNet1	1	10.2.0.0/16		DemoRG	Production subscrip ...
	Prod	10.2.0.0/24	✓ Enabled	DemoRG	Production subscrip ...

Firewall

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

ADDRESS RANGE

IP address or CIDR

Exceptions

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

Allow read access to storage logging from any network

Allow read access to storage metrics from any network

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

NOTE: Each correct selection is worth one point.

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].

▼
always
during a backup
never

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

▼
always
during a backup
never

Solution:

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].

▼
always
during a backup
never

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

▼
always
during a backup
never

Explanation/Reference

Explanation:

Box 1: never

The 10.2.9.0/24 subnet is not whitelisted.

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.

The screenshot shows the Azure Storage account settings for 'sogupstorage'. The left sidebar lists various options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Storage Explorer (preview), Access keys, Configuration, Encryption, Shared access signature, Firewalls and virtual networks (which is selected and highlighted in blue), and Metrics (preview). The main content area is titled 'Firewalls and virtual networks' and includes sections for 'Allow access from' (with radio buttons for 'All networks' and 'Selected networks'), 'Virtual networks' (with links to add existing or new virtual networks), and 'Firewall' (with a note to add IP ranges for internet or on-premises access). A red box highlights the 'Exceptions' section, which contains three checkboxes: 'Allow trusted Microsoft services to access this storage account' (checked), 'Allow read access to storage logging from any network' (unchecked), and 'Allow read access to storage metrics from any network' (unchecked).

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 64

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.

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.

Solution:

Question 68

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.

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)

Solution:**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)

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 69

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.

- an XML manifest file
- a dataset CSV file
- a JSON configuration file
- a PowerShell PS1 file
- a driveset CSV file

Explanation/Reference

Explanation:

B: 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 70

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?

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

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.

The screenshot shows the Azure Recovery Services vault dashboard. On the left, there's a sidebar with 'PROTECTED ITEMS' containing 'Backup items' (which is highlighted with a red box), 'Replicated items', 'MANAGE' with 'Site Recovery Infrastructure', 'Backup Infrastructure', and 'Recovery Plans (Site Recovery)', and a search bar at the top. The main area has a 'Refresh' button and a table titled 'BACKUP MANAGEMENT TYPE'. The table lists four categories: 'Azure Storage (Azure Files)' (4 items), 'Azure Backup Server' (3 items), 'SQL in Azure VM' (1 item), and 'Azure Virtual Machine' (1 item). The rows for 'Azure Storage (Azure Files)', 'SQL in Azure VM', and 'Azure Virtual Machine' are also highlighted with red boxes.

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

Reference:

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

Question 71

HOTSPOT

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

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

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

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

NOTE: Each correct selection is worth one point.

Answer Area

Can use Vault1 for backups:

▼

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

Can use Vault2 for backups:

▼

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

Answer Area

Can use Vault1 for backups:

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

Can use Vault2 for backups:

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

Solution:

Explanation/Reference

Explanation:

Box 1: VM1 only

VM1 is in the same region as Vault1.

File1 is not in the same region as Vault1.

SQL is not in the same region as Vault1.

Blobs cannot be backup up to service vaults.

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

Box 2: Share1 only.

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

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

Reference:

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

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

Question 72

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 virtual machine
- an Azure Cosmos DB database
- Azure File Storage
- the Azure File Sync Storage Sync Service

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 73

HOTSPOT

You have an Azure subscription.

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

Validation passed

Basics

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

Networking

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

Advanced

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

Create **< Previous** **Next >** [Download a template for automation](#)

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

NOTE: Each correct selection is worth one point.

Answer Area

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

▼
1
2
3
4

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

▼
Access tier (default)
Performance
Account kind
Replication

Solution:

Answer Area

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

▼
1
2
3
4

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

▼
Access tier (default)
Performance
Account kind
Replication

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 74

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?

- blob, file, table, and queue
- blob and file only
- file and table only
- file only
- blob, table, and queue only

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 75

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.

Answer Area

Blob storage:

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

File storage:

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

Solution:

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 76

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?

- Azure Files
- Azure Blob storage
- Azure Queue storage
- Azure Table storage

Question 77

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?

- one update domain
- two fault domains
- one fault domain
- two update domains

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 78

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?

- an Azure Cosmos DB database
- Azure Blob storage
- Azure Data Lake Store
- the Azure File Sync Storage Sync Service

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 79

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.

Actions

- Create a Storage Sync Service
- Install the Azure File Sync agent
- Create a sync group
- Run Server Registration

Answer Area

First action:

Action

Second action:

Action

Solution:

Actions

- Create a Storage Sync Service
- Install the Azure File Sync agent
- Create a sync group
- Run Server Registration

Answer Area

First action:

Create a Storage Sync Service

Second action:

Install the Azure File Sync agent

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 80

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.

Answer Area

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

Solution:**Answer Area**

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

Explanation/Reference

Explanation:

Box 1: No

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

Box 2: Yes

Data2 is located on Server2 which is registered to Sync1.

Box 3: No

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

Reference:

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

Question 81

HOTSPOT

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

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

You plan to configure Azure Backup reports for Vault1.

You are configuring the Diagnostics settings for the AzureBackupReports log.

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

NOTE: Each correct selection is worth one point.

Answer Area

Storage accounts:

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

Log Analytics workspaces:

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

Solution:

Answer Area

Storage accounts:

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

Log Analytics workspaces:

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

Explanation/Reference

Explanation:

Box 1: storage1, storage2, and storage3

The location and subscription where this Log Analytics workspace can be created is independent of the location and subscription where your vaults exist.

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 82

HOTSPOT

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

Storage accounts 

Default Directory

+ Add  Manage view  Refresh  Export to CSV |  Assign tags  Delete |  Feedback

Filter by name...  Subscription == all  Resource group == all  Location == all  Add filter

Showing 1 to 4 of 4 records.

<input type="checkbox"/>	Name ↑↓	Type ↑↓	Kind ↑↓	Resource group ↑↓	Location ↑↓
<input type="checkbox"/>	 contoso101	Storage account	StorageV2	RG1	East US
<input type="checkbox"/>	 contoso102	Storage account	Storage	RG1	East US
<input type="checkbox"/>	 contoso103	Storage account	BlobStorage	RG1	East US
<input type="checkbox"/>	 contoso104	Storage account	FileStorage	RG1	East US

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.

Answer Area

You can create a premium file share in

You can use the Archive access tier in

Solution:

Answer Area

You can create a premium file share in

contoso101only
contoso104 only
contoso101 or contoso104 only
contoso101, contoso102, or contoso104 only
contoso101, contoso102, contoso103, or contoso104

You can use the Archive access tier in

contoso101only
contoso101 or contoso103 only
contoso101, contoso102, and contoso103 only
contoso101, contoso102, and contoso104 only
contoso101, contoso102, contoso103, and contoso104

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 contoso103 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>

Question 83

HOTSPOT

You have an Azure subscription named Subscription1.

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

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

Allowed services ⓘ

Blob File Queue Table

Allowed resource types ⓘ

Service Container Object

Allowed permissions ⓘ

Read Write Delete List Add Create Update Process

Start and expiry date/time ⓘ

Start

2018-09-01



2:00:00 PM

End

2018-09-14



2:00:00 PM

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

**Allowed IP addresses** ⓘ

193.77.134.10-193.77.134.50

**Allowed protocols** ⓘ HTTPS only HTTPS and HTTP**Signing key** ⓘ

key1

**Generate SAS and connection string**

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

NOTE: Each correct selection is worth one point.

Answer Area

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

- will be prompted for credentials
- will have no access
- will have read, write, and list access
- will have read-only access

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

Solution:**Answer Area**

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

- will be prompted for credentials
- will have no access
- will have read, write, and list access
- will have read-only access

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

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 84

You have two Azure virtual machines named VM1 and VM2. You have two Recovery Services vaults named RSV1 and RSV2.

VM2 is backed up to RSV1.

You need to back up VM2 to RSV2.

What should you do first?

- From the RSV1 blade, click **Backup items** and stop the VM2 backup
- From the RSV2 blade, click **Backup**. From the Backup blade, select the backup for the virtual machine, and then click **Backup**
 - From the VM2 blade, click **Disaster recovery**, click **Replication settings**, and then select RSV2 as the Recovery Services vault
 - From the RSV1 blade, click **Backup Jobs** and export the VM2 job

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm>

Question 85

You have a general-purpose v1 Azure Storage account named storage1 that uses locally-redundant storage (LRS).

You need to ensure that the data in the storage account is protected if a zone fails. The solution must minimize costs and administrative effort.

What should you do first?

- Create a new storage account.
- Configure object replication rules.
- Upgrade the account to general-purpose v2.
- Modify the Replication setting of storage1.

Explanation/Reference

Reference:

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

Question 86

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

Name	Type	Performance
storage1	StorageV2	Standard
storage2	BlobStorage	Standard
storage3	BlockBlobStorage	Premium
storage4	FileStorage	Premium

You plan to manage the data stored in the accounts by using lifecycle management rules.

To which storage accounts can you apply lifecycle management rules?

- storage1 only
- storage1 and storage2 only
- storage3 and storage4 only
- storage1, storage2, and storage3 only
- storage1, storage2, storage3, and storage4

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/storage-lifecycle-management-concepts?tabs=azure-portal>

Question 87

You create an Azure Storage account named contosostorage.

You plan to create a file share named data.

Users need to map a drive to the data file share from home computers that run Windows 10.

Which outbound port should you open between the home computers and the data file share?

- 80
- 443
- 445
- 3389

Explanation/Reference

Explanation:

Server Message Block (SMB) is used to connect to an Azure file share over the internet. The SMB protocol requires TCP port 445 to be open.

Incorrect Answers:

- A: Port 80 is required for HTTP to a web server
- B: Port 443 is required for HTTPS to a web server
- D: Port 3389443 is required for Remote desktop protocol (RDP) connections

Reference:

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

Deploy and manage Azure compute resources (69 questions)

Case Study (1 questions)

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 Premium 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 161

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?

- Diagram in VNet1
- Diagnostic settings in Azure Monitor
- Diagnose and solve problems in Traffic Manager profiles
- The security recommendations in Azure Advisor
- IP flow verify in Azure Network Watcher

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>

Question 92

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?

- Yes
- No

Explanation/Reference

Explanation:

You must install the Microsoft Monitoring Agent on VM1, and not the Microsoft Monitoring Agent VM extension.

Reference:

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

Question 93

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?

- Yes
- No

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>

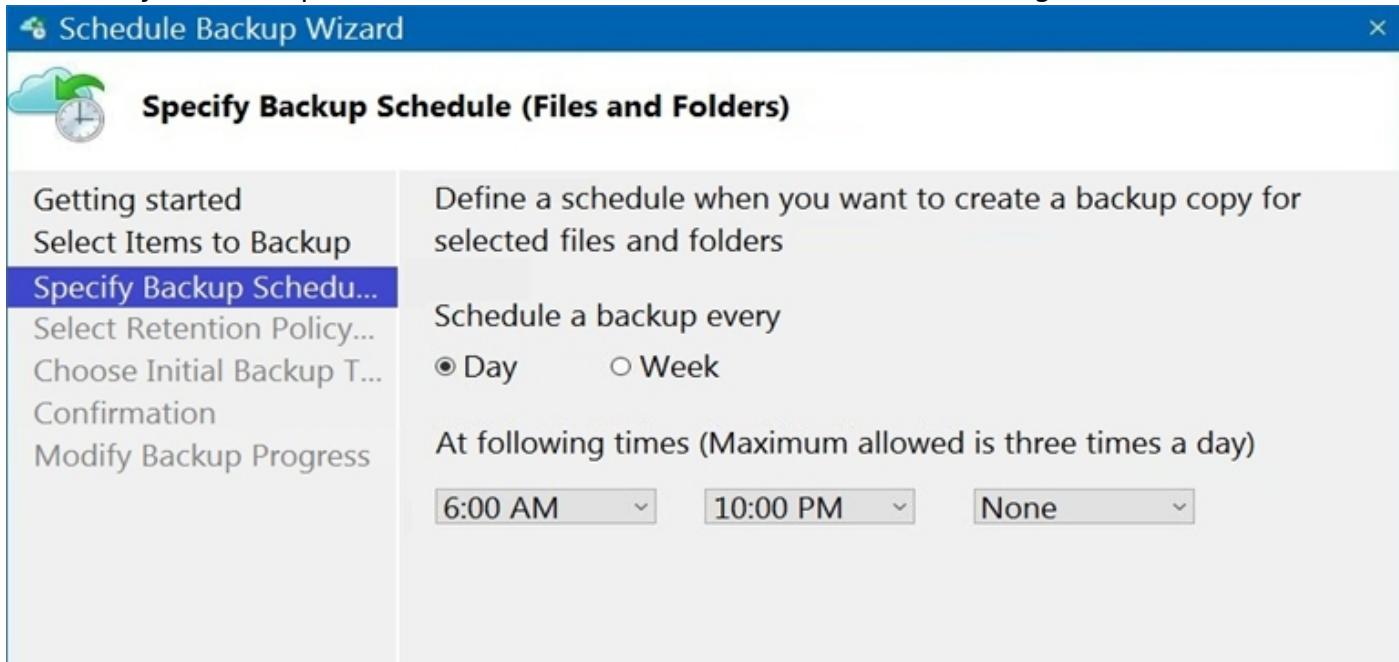
Question 94

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

Name	Type	Resource group	Location
Vault1	Recovery services vault	RG1	East US
VM1	Virtual machine	RG1	East US
VM2	Virtual machine	RG1	West US

All virtual machines run Windows Server 2016.

On VM1, you back up a folder named Folder1 as shown in the following exhibit.



You plan to restore the backup to a different virtual machine.

You need to restore the backup to VM2.

What should you do first?

- From VM1, install the Windows Server Backup feature.
- From VM2, install the Microsoft Azure Recovery Services Agent.
- From VM1, install the Microsoft Azure Recovery Services Agent.
- From VM2, install the Windows Server Backup feature.

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-restore-windows-server>

Question 95

HOTSPOT

You have an Azure subscription.

You need to use an Azure Resource Manager (ARM) template to create a virtual machine that will have multiple data disks.

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

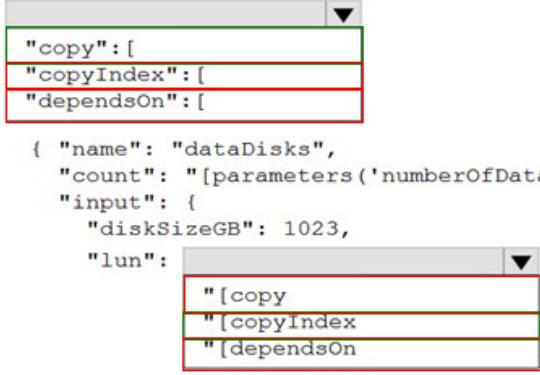
NOTE: Each correct selection is worth one point.

Answer Area

```
{
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",
  "parameters": {
    "numberOfDataDisks": {
      "type": "int",
      "metadata": {
        "description": "The number of dataDisks to create."
      }
    },
    ...
  },
  "resources": [
    {
      "type": "Microsoft.Compute/virtualMachines",
      "apiVersion": "2017-03-30",
      ...
      "properties": {
        "storageProfile": {
          ...
          "copy": [
            "copyIndex": [
              "dependsOn": [
                ...
                {
                  "name": "dataDisks",
                  "count": "[parameters('numberOfDataDisks')]",
                  "input": {
                    "diskSizeGB": 1023,
                    "lun": "[copyIndex('dataDisks')]",
                    ...
                    "createOption": "Empty"
                  }
                }
              ]
            ]
          }
        }
      }
    }
  ]
}
```

Solution:

Answer Area

```
{  
  "$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",  
  "parameters": {  
    "numberOfDataDisks": {  
      "type": "int",  
      "metadata": {  
        "description": "The number of dataDisks to create."  
      }  
    },  
    ...  
  },  
  "resources": [  
    {  
      "type": "Microsoft.Compute/virtualMachines",  
      "apiVersion": "2017-03-30",  
      ...  
      "properties": {  
        "storageProfile": {  
          ...  
            
          "copy": [  
            "copyIndex": [  
              "dependsOn": [  
                { "name": "dataDisks",  
                  "count": "[parameters('numberOfDataDisks')]",  
                  "input": {  
                    "diskSizeGB": 1023,  
                    "lun":  ("dataDisks")],  
                    "copy": [  
                      "[copyIndex"  
                      "[dependsOn"  
                      "[copy  
                    ]  
                  ]  
                ]  
              ]  
            ]  
          ]  
        }  
      }  
      "createOption": "Empty"  
    }  
  ]  
}
```

Explanation/Reference

Question 96

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 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG1 and West US.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Explanation:

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

Question 97

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 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG2 and Central US.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Explanation:

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

Question 98

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 that contains the resources shown in the following table.

Name	Type	Location	Resource group
RG1	Resource group	East US	<i>Not applicable</i>
RG2	Resource group	West Europe	<i>Not applicable</i>
RG3	Resource group	North Europe	<i>Not applicable</i>
VNET1	Virtual network	Central US	RG1
VM1	Virtual machine	West US	RG2

VM1 connects to a virtual network named VNET2 by using a network interface named NIC1.

You need to create a new network interface named NIC2 for VM1.

Solution: You create NIC2 in RG2 and West US.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Explanation:

The virtual machine you attach a network interface to and the virtual network you connect it to must exist in the same location, here West US, also referred to as a region.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-network-interface>

Question 99

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 deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure Cloud Shell, you run `az aks`.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question 100

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 deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure Cloud Shell, you run the kubectl client.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question 101

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 deploy an Azure Kubernetes Service (AKS) cluster named AKS1.

You need to deploy a YAML file to AKS1.

Solution: From Azure CLI, you run `azcopy`.

Does this meet the goal?

- Yes
- No

Explanation/Reference

Reference:

<https://docs.microsoft.com/en-us/azure/aks/kubernetes-walkthrough>

Question 102

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?

- Yes
- No

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 103

HOTSPOT

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

Name	Type
RG1	Resource group
RG2	Resource group
VNet1	Virtual network
VNet2	Virtual network

the following table.

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.

Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

Answer Area

First action:

- Create a network interface in RG2.
- Detach a network interface.
- Delete VM1.
- Move a network interface to RG2.

Second action:

- Attach a network interface.
- Create a network interface in RG2.
- Create a new virtual machine.
- Move VM1 to RG2.

Solution:

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 104

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?

- an Azure Key Vault and an access policy
- an Azure Storage account and an access policy
- a Recovery Services vault and a backup policy
- Azure Active Directory (AD) Identity Protection and an Azure policy

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 105

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.

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

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

Solution:

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 106

HOTSPOT

You create a virtual machine scale set named Scale1. Scale1 is configured as shown in the following exhibit.

Create a virtual machine scale set

Basics Disks Networking **Scaling** Management Health Advanced

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application. [Learn more about VMSS scaling](#)

Instance

Initial instance count * ✓

Scaling

Scaling policy Manual Custom

Minimum number of VMs * ✓

Maximum number of VMs * ✓

Scale out

CPU threshold (%) * ✓

Duration in minutes * ✓

Number of VMs to increase by * ✓

Scale in

CPU threshold (%) * ✓

Number of VMs to decrease by * ✓

Diagnostic logs

Collect diagnostic logs from Autoscale Disabled Enabled

Review + create < Previous Next: Management >

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

NOTE: Each correct selection is worth one point.

Answer Area

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

▼
2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

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

▼
2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Solution:

Answer Area

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

▼
2 virtual machines
4 virtual machines
6 virtual machines
10 virtual machines
20 virtual machines

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

▼
2 virtual machines
4 virtual machines
6 virtual machines
8 virtual machines
10 virtual machines

Explanation/Reference

Explanation:

Box 1: 6 virtual machines

The Autoscale scale out rule increases the number of VMs by 2 if the CPU threshold is 80% or higher. The initial instance count is 4 and rises to 6 when the 2 extra instances of VMs are added.

Box 2: 2 virtual machines

The Autoscale scale in rule decreases the number of VMs by 4 if the CPU threshold is 30% or lower. The initial instance count is 4 and thus cannot be reduced to 0 as the minimum

instances is set to 2. Instances are only added when the CPU threshold reaches 80%.

Reference:

<https://docs.microsoft.com/en-us/azure/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 107

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.

- Upload a configuration script
- Create an automation account
- Create an Azure policy
- Modify the `extensionProfile` section of the Azure Resource Manager template
- Create a new virtual machine scale set in the Azure portal

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 108

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.

Answer Area

az
docker
msiexec.exe
Install-Module

aks
/package
-name
pull

Install-cli

Solution:**Answer Area**

az
docker
msiexec.exe
Install-Module

aks
/package
-name
pull

Install-cli

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 109

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.

Actions

Assign tags to the virtual machines

Check the compliance status of the node

Compile a configuration into a node configuration

Upload a configuration to Azure Automation State Configuration

Create a management group

Answer AreaSolution:**Actions**

Assign tags to the virtual machines

Check the compliance status of the node

Compile a configuration into a node configuration

Upload a configuration to Azure Automation State Configuration

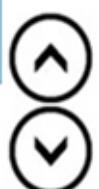
Create a management group

Answer Area

Upload a configuration to Azure Automation State Configuration

Compile a configuration into a node configuration

Assign tags to the virtual machines



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

Then: 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 110

You have an Azure Resource Manager template named Template1 that is used to deploy an Azure virtual machine.

```
"location": {
    "type": "String",
    "defaultValue": "eastus",
    "allowedValues": [
        "canadacentral",
        "eastus",
        "westeurope",
        "westus" ] }
```

Template1 contains the following text:

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?

- Modify the location in the resources section to westus
- Select West US during the deployment
- Modify the location in the variables section to westus

Question 111

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?

- From Plan1, scale up the App Service plan
- From webapp1, modify the Application settings
- From webapp1, add a custom domain
- From Plan1, scale out the App Service plan

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 112

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?

- one virtual machine scale set that has 10 virtual machines instances
- one Availability Set that has three fault domains and one update domain
- one Availability Set that has 10 update domains and one fault domain
- one virtual machine scale set that has 12 virtual machines instances

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 113

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?

- Yes
- No

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 114

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?

- Yes
- No

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 115

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?

- Yes
- No

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 116

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?

- Yes
- No

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 117

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?

- Create a DNS record
- Add a connection string
- Upload a certificate.
- Stop webapp1.

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 118

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

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

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

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

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

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

Does this meet the goal?

- Yes
- No

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 119

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

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

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

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

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

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

Does this meet the goal?

- Yes
- No

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 120

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

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

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

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

VM1 connects to VNET1.

You need to connect VM1 to VNET2.

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

Does this meet the goal?

- Yes
- No

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 121

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 machines to Subscription1 as shown in the following table.

Name	Size	vCPUs	Location	Status
VM1	Standard_B2ms	2	West US	Running
VM2	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.

Answer Area

Statements	Yes	No
You can deploy VM3 to West US.	<input type="radio"/>	<input type="radio"/>
You can deploy VM4 to West US.	<input type="radio"/>	<input type="radio"/>
You can deploy VM5 to West US.	<input type="radio"/>	<input type="radio"/>

Solution:

Answer Area

Statements	Yes	No
You can deploy VM3 to West US.	<input checked="" type="radio"/>	<input type="radio"/>
You can deploy VM4 to West US.	<input type="radio"/>	<input checked="" type="radio"/>
You can deploy VM5 to West US.	<input type="radio"/>	<input checked="" type="radio"/>

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 122

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.

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

Solution:**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

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 123

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?

- 131.107.2.1
- 10.0.10.11
- 172.17.7.1
- 192.168.10.2

Question 124

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?

- five Azure Application Gateways
- one App Service plan
- 10 App Service plans
- one Azure Traffic Manager
- one Azure Application Gateway

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 125

HOTSPOT

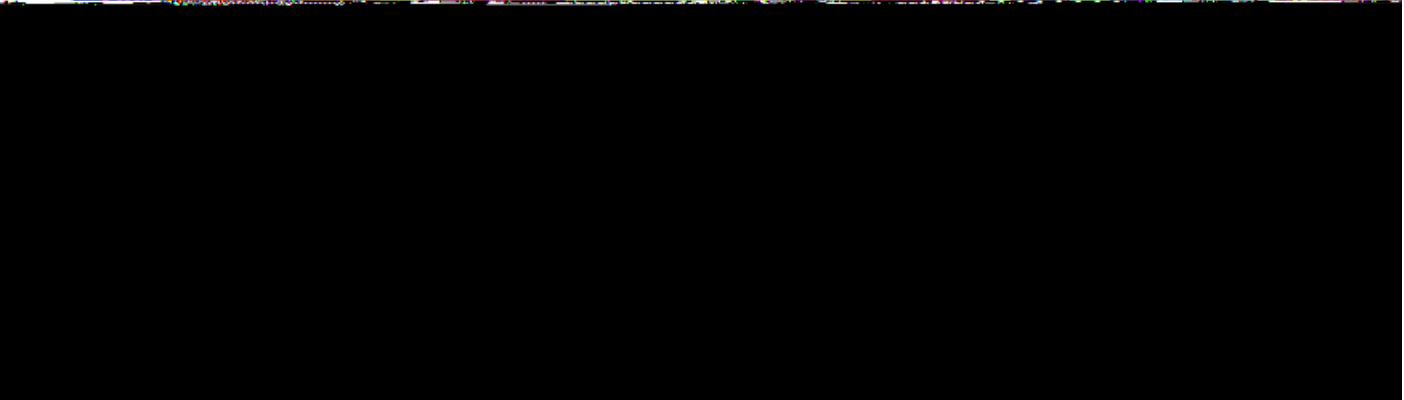
You plan to deploy an Azure container instance by using the following Azure Resource

```
{  
    "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"  
    }  
}
```

Manager template.

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

Answer Area



Solution:

Explanation/Reference

Question 126

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?

Solution:**Answer Area****Internet users [answer choice].**

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

If you delete Rule2, Internet users [answer choice].

can connect to only the DNS server on VM1
can connect to only the web server on VM1
can connect to the web server and the DNS server on VM1
cannot connect to the web server and the DNS server on VM1

Explanation/Reference

Explanation:

Box 1:

Rule2 blocks ports 50-60, which includes port 53, the DNS port. Internet users can reach to the Web server, since it uses port 80.

Box 2:

If Rule2 is removed internet users can reach the DNS server as well.

Note: Rules are processed in priority order, with lower numbers processed before higher numbers, because lower numbers have higher priority. Once traffic matches a rule, processing stops. As a result, any rules that exist with lower priorities (higher numbers) that have the same attributes as rules with higher priorities are not processed.

Reference:

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

Question 147

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?

- all three virtual machines in a single Availability Zone
- all virtual machines in a single Availability Set
- each virtual machine in a separate Availability Zone
- each virtual machine in a separate Availability Set

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 148

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?

- operating system
- administrator username
- virtual machine size
- resource group

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 149

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?

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

Explanation/Reference

Reference:

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

Question 150

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?

- Deployment Center in Azure App Service
- A Desired State Configuration (DSC) extension
- the `New-AzConfigurationAssignment` cmdlet
- a Microsoft Intune device configuration profile

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 151

HOTSPOT

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

Network profile	
Type (plugin)	Basic (Kubnet)
Pod CIDR	10.244.0.0/16
Service CIDR	10.0.0.0/16
DNS service IP	10.0.0.10
Docker bridge CIDR	172.17.0.1/16
Network options	
HTTP application routing	
Enabled	Disabled

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.

Answer Area

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

▼

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

▼

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Solution:

Answer Area

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

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

Services in the AKS cluster will be assigned an IP address in the [answer choice] subnet.

10.244.0.0/16
10.0.0.0/16
172.17.0.1/16

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 152

HOTSPOT

You have the App Service plan shown in the following exhibit.

Default Auto created scale condition

Delete warning ! The very last or default recurrence rule cannot be deleted. Instead, you can disable autoscale to turn off autoscale

Scale mode Scale based on a metric Scale to a specific instance count

Rules

When	homepage	(Maximum) CpuPercentage > 85	Increase count by 1
Scale out			
When	homepage	(Average) CpuPercentage < 30	Decrease count by 1
Scale in			

+ Add a rule

Instance limits

Minimum !	1	✓
Maximum !	5	✓
Default !	1	✓

Schedule This scale condition is executed when none of the other scale condition(s) match

The scale-in settings for the App Service plan are configured as shown in the following exhibit.

Operator *

Less than

Metric threshold to trigger scale action * !

30 %

Duration (in minutes) * !

5 ✓

Time grain (in mins) !

1

Time grain statistic * !

Average

Action

Operation *

Decrease count by

Instance count *

1 ✓

Cool down (minutes) * !

5

The scale out rule is configured with the same duration and cool down time 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.

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

Solution:

If after deployment CPU usage is 70 percent for one hour and then reaches 90 percent for five minutes, at that time the total number of instances will be [answer choice].

1
2
3
4
5

If after deployment the CPU maintains constant usage of 90 percent for one hour, and then the average CPU usage is below 25 percent for nine minutes, at that point the number of instances will be [answer choice].

1
2
3
4
5

Explanation/Reference

Explanation:

Box 1: 5

The maximum 5 will kept as the CPU Usage ≥ 30 .

Box 2: 3

As soon as the average CPU usage drops below 30%, the count will decrease by 1. After the 5 minute cool-down it will decrease by another 1, reaching 3.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/learn/tutorial-autoscale-performance-schedule>

Question 153

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.

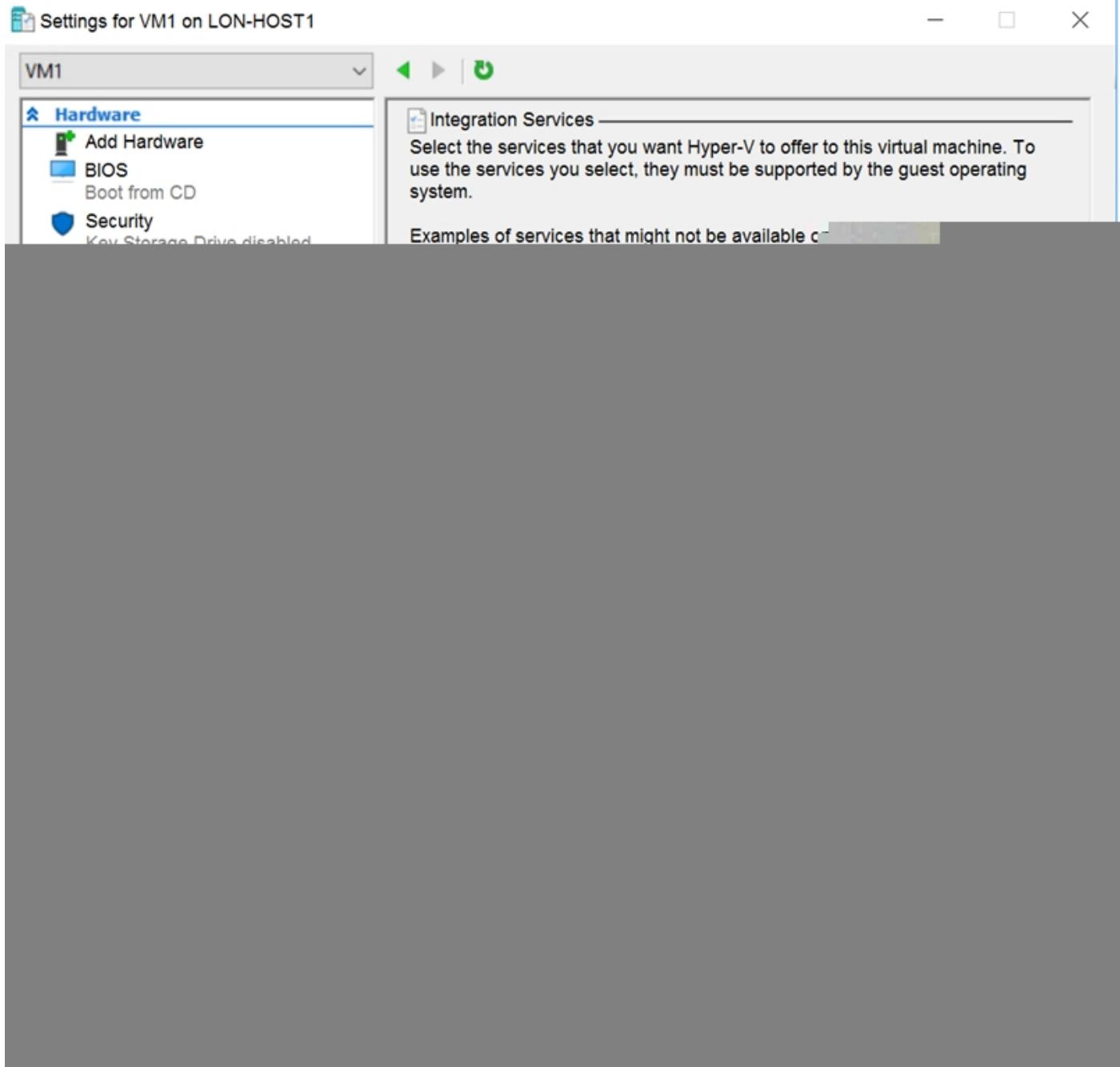
Which changes will be lost after you redeploy VM1?

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

Question 154

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?

- the memory
- the network adapters
- the hard drive
- the processor

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

Question 157

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

Name	Function
webapp1-prod	Production
webapp1-test	Staging

following table:

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?

- Redeploy App1
- Swap the slots
- Clone App1
- Restore the backup of App1

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 158

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.

Answer Area

You can perform a file recovery of VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- A new Azure virtual machine only
- Any Windows computer that has Internet connectivity

You can restore VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- Any Windows computer that has Internet connectivity

Solution:

Answer Area

You can perform a file recovery of VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- A new Azure virtual machine only
- Any Windows computer that has Internet connectivity

You can restore VM1 to:

- VM1 only
- VM1 or a new Azure virtual machine only
- VM1 and VM2 only
- Any Windows computer that has Internet connectivity

Explanation/Reference

Explanation:

Note: The new VM must be in the same region.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-arm-restore-vms>

Question 159

You plan to back up an Azure virtual machine named VM1.

You discover that the Backup Pre-Check status displays a status of Warning.

What is a possible cause of the Warning status?

- VM1 is stopped.
- VM1 does not have the latest version of the Azure VM Agent (WaAppAgent.exe) installed.
- VM1 has an unmanaged disk.
- A Recovery Services vault is unavailable.

Explanation/Reference

Explanation:

The Warning state indicates one or more issues in VM's configuration that might lead to backup failures and provides recommended steps to ensure successful backups. Not having the latest VM Agent installed, for example, can cause backups to fail intermittently and falls in this class of issues.

Reference:

<https://azure.microsoft.com/en-us/blog/azure-vm-backup-pre-checks/>

Question 160

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 resource group.

Does this meet the goal?

- Yes
- No

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>

Configure and manage virtual networking (84 questions)

Case Study (1 questions)

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 Premium 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 246

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.

Answer Area

From the Azure portal:

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

In the New York office:

Deploy ExpressRoute.
Deploy a DirectAccess server.
Implement a Web Application Proxy.
Configure a site-to-site VPN connection.

Solution:

Answer Area

From the Azure portal:

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

In the New York office:

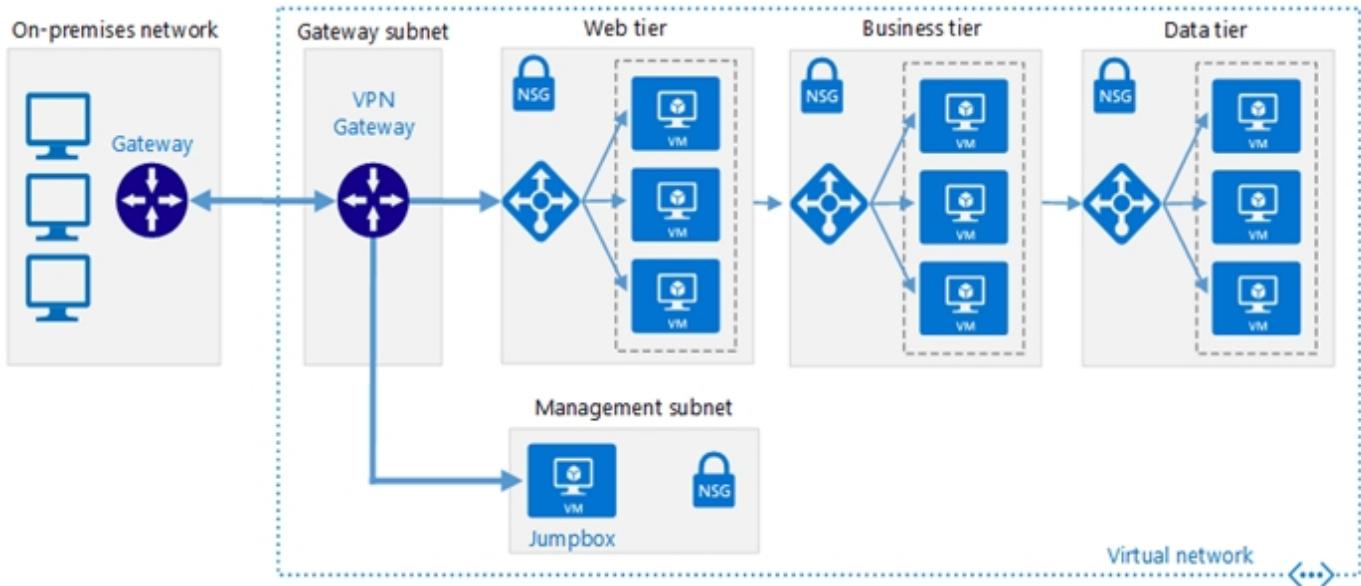
- Deploy ExpressRoute.
- Deploy a DirectAccess server.
- Implement a Web Application Proxy.
- Configure a site-to-site VPN connection.**

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:



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
217
trainings.vmware@gmail.com

Licensed to Trainings vmware

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>

- 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.

Case Study (2 questions)

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.

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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 247

HOTSPOT

You need to recommend a solution for App1. The solution must meet the technical requirements.

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

NOTE: Each correct selection is worth one point.

Answer Area

Number of virtual networks:

1
2
3

Number of subnets per virtual network:

1
2
3

Answer Area

Number of virtual networks:

1
2
3

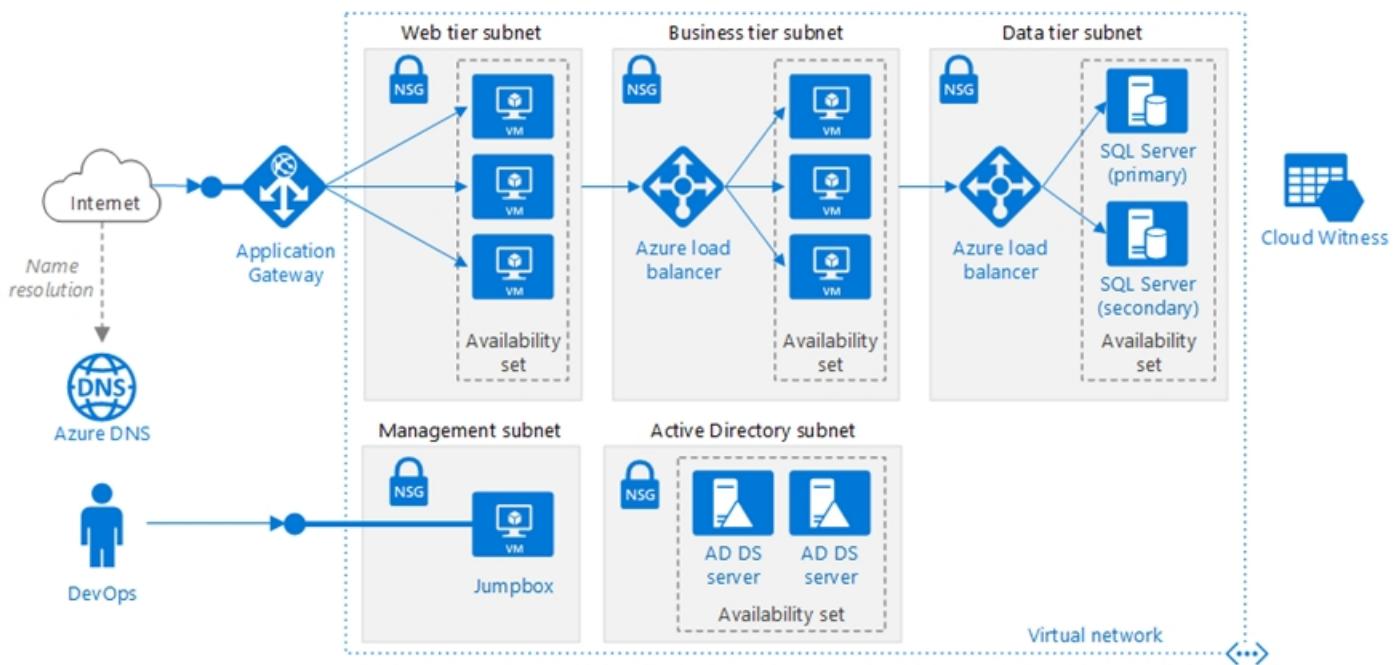
Number of subnets per virtual network:

1
2
3

Solution: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 248

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?

- Create an incoming security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
 - Create an outgoing security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
 - Create an incoming security rule for port 443 from the Internet. Associate the NSG to all the subnets.
 - Create an outgoing security rule for port 443 from the Internet. Associate the NSG to all the subnets.

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.

Question 162

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.

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

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

Solution:

Explanation/Reference

Question 163

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?

- Floating IP (direct server return) to **Enabled**
- Floating IP (direct server return) to **Disabled**
- a health probe
- Session persistence to **Client IP and Protocol**

Explanation/Reference

Explanation:

With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP.

On the following image you can see sticky session configuration:

The screenshot shows the Azure Load Balancer configuration interface. On the left, there's a sidebar with options like Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Frontend IP configuration, Backend pools, Health probes, and Load balancing rules. The Load balancing rules option is highlighted with a yellow arrow. The main pane shows a 'stickyessionrule' configuration with the following details:

- Name: stickysessionrule
- IP Version: IPv4
- Frontend IP address: 40.118.100.121 (LoadBalancerFrontEnd)
- Protocol: TCP
- Port: 80
- Backend port: 80
- Backend pool: Web1 (1 virtual machine)
- Health probe: Web-80 (HTTP:80)
- Session persistence: Client IP
- Idle timeout (minutes): 4
- Floating IP (direct server return): Disabled

A large yellow arrow points diagonally across the top of the interface, labeled 'Load balancer 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 164

HOTSPOT

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

Name	Operating system	Connects to
VM1	Windows Server 2019	Subnet1
VM2	Windows Server 2019	Subnet2

VM1 and VM2 use public IP addresses. From Windows Server 2019 on VM1 and VM2, you allow inbound Remote Desktop connections.

Subnet1 and Subnet2 are in a virtual network named VNET1.

The subscription contains two network security groups (NSGs) named NSG1 and NSG2. NSG1 uses only the default rules.

NSG2 uses the default rules and the following custom incoming rule:

- Priority: 100
- Name: Rule1
- Port: 3389
- Protocol: TCP
- Source: Any
- Destination: Any
- Action: Allow

NSG1 is associated to Subnet1. NSG2 is associated to the network interface of VM2.

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input type="radio"/>	<input type="radio"/>

Solution:

Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input checked="" type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input checked="" type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input checked="" type="radio"/>	<input type="radio"/>

Explanation/Reference

Question 165

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	<i>None</i>

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	<i>None</i>
VM3	Subnet2	10.10.2.6	<i>None</i>

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:

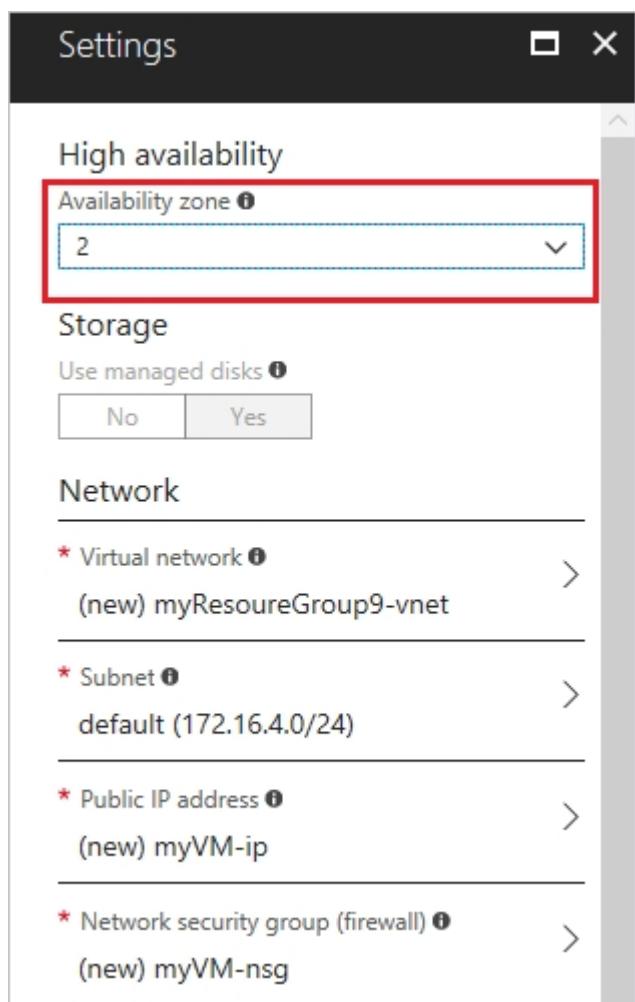
Priority	Source	Destination	Destination port	Action
125	10.10.2.5	10.10.1.5	TCP/1433	Block

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
[Redacted]		



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 199

HOTSPOT

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

Name	Type	Resource group	Location
RG1	Resource group	<i>Not applicable</i>	Central US
RG2	Resource group	<i>Not applicable</i>	West US
RG3	Resource group	<i>Not applicable</i>	East US
VMSS1	Virtual machine scale set	RG1	West US

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

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

Which resource group and location should you use to deploy VM1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Resource group:

RG1 only
RG2 only
RG1 or RG2 only
RG1, RG2, or RG3

Location:

West US only
Central US only
Central US or West US only
East US, Central US, or West US

Answer Area

Resource group:	
RG1 only	
RG2 only	
RG1 or RG2 only	
RG1, RG2, or RG3	

Location:	
West US only	
Central US only	
Central US or West US only	
East US, Central US, or West US	

Solution:

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 200

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.

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET2	Disabled
Peering1	Connected	VNET3	Disabled

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

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled

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

NAME	PEERING STATUS	PEER	GATEWAY TRANSIT
Peering1	Connected	VNET1	Disabled

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

NOTE: Each correct selection is worth one point.

Answer Area

Packets from VNET1 can be routed to:

VNET2 only
VNET3 only
VNET2 and VNET3

Packets from VNET2 can be routed to:

VNET1 only
VNET3 only
VNET1 and VNET3

Answer Area

Packets from VNET1 can be routed to:

VNET2 only
VNET3 only
VNET2 and VNET3

Packets from VNET2 can be routed to:

VNET1 only
VNET3 only
VNET1 and VNET3

Solution:

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 201

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?

- Yes
- No

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 202

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?

- Yes
- No

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 203

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?

- Yes
- No

Question 204

You have an Azure subscription named Subscription1. Subscription1 contains a virtual machine named VM1.

You have a computer named Computer1 that runs Windows 10. Computer1 is connected to the Internet.

You add a network interface named vm1173 to VM1 as shown in the exhibit. (Click the **Exhibit** tab.)

Network Interface: vm1173

Virtual network/subnet: RG1-vnet/default
networking: Disabled

Effective security rules: Public IP: VM1-ip

Topology: Private IP: 10.0.0.5 Accelerated

Inbound port rules	Outbound port rules	Application security groups	Load balancing			
Network security group VM1-nsg (attached to network interface: vm1173) Impacts 0 subnets, 1 network interfaces			Add inbound port rule			
PRIORITY	NAME	PORT	PROTOCOL	SOURCE	DESTINA...	ACTION
300	⚠️ RDP	3389	TCP	Any	Any	Allow ...
65000	AllowVnetInBound	Any	Any	VirtualN...	VirtualN...	Allow ...
65001	AllowAzureLoadB...	Any	Any	AzureLo...	Any	Allow ...
65500	DenyAllInBound	Any	Any	Any	Any	Deny ...

From Computer1, you attempt to connect to VM1 by using Remote Desktop, but the connection fails.

You need to establish a Remote Desktop connection to VM1.

What should you do first?

- Change the priority of the RDP rule
- Attach a network interface
- Delete the DenyAllInBound rule
- Start VM1

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 205

You have the Azure virtual machines shown in the following table.

Name	IP address	Connected to
VM1	10.1.0.4	VNET1/Subnet1
VM2	10.1.10.4	VNET1/Subnet2
VM3	172.16.0.4	VNET2/SubnetA
VM4	10.2.0.8	VNET3/SubnetB

A DNS service is installed on VM1.

You configure the DNS servers settings for each virtual network as shown in the following

The screenshot shows the Azure portal interface for configuring DNS servers. At the top, there are 'Save' and 'Discard' buttons. Below them, under 'DNS servers', the 'Custom' option is selected. A list of IP addresses is displayed: 10.1.0.4, 10.1.10.4, 172.16.0.4, and 10.2.0.8. Each IP address has a three-dot ellipsis button to its right. At the bottom, there is an 'Add DNS server' button with its own three-dot ellipsis button to its right.

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?

- Configure a conditional forwarder on VM1
- Add service endpoints on VNET1
- Add service endpoints on VNET2 and VNET3
- Configure peering between VNET1, VNET2, and VNET3

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 206

HOTSPOT

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

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

following table.

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

Priority	Source	Destination	Protocol	Port	Action
100	172.16.1.0/24	172.16.2.0/24	TCP	Any	Allow
101	Any	172.16.2.0/24	TCP	Any	Deny

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

Resource group *

 ✓

Source type *

 ▼

* Virtual machine

 ▼

Destination

 Select a virtual machine Specify manually

Resource group *

 ✓
Virtual machine * !
 ▼

Probe Settings

Protocol !
 TCP ICMP
Destination port * !
 ▼
Advanced settings**Check**

Status

Unreachable

Agent extension version
1.4

Source virtual machine

VM1

Grid viewTopology view

Hops

NAME	IP ADDRESS	STATUS	NEXT HOP IP ADDRESS	RTT FROM SOURCE (ms)
VM1	172.16.1.4	✓	172.16.2.4	-
VM2	172.16.2.4	✗	-	-

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

Source type *

Virtual machine



* Virtual machine

VM1



Destination

Select a virtual machine Specify manually

Resource group *

RG1



Virtual machine *

VM2



Probe Settings

Protocol

TCP ICMP

Check

Status

Reachable

Agent extension version

1.4

Source virtual machine

VM1

[Grid view](#)[Topology view](#)

Hops

NAME	IP ADDRESS	STATUS	NEXT HOP IP ADDRESS	RTT FROM SOURCE (...)
VM1	172.16.1.4		172.16.2.4	0
VM2	172.16.2.4		-	-

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
NSG1 limits VM1 traffic	<input type="radio"/>	<input type="radio"/>
NSG1 applies to VM2	<input type="radio"/>	<input type="radio"/>
VM1 and VM2 connect to the same virtual network	<input type="radio"/>	<input type="radio"/>

Solution:**Answer Area**

Statements	Yes	No
NSG1 limits VM1 traffic	<input checked="" type="radio"/>	<input type="radio"/>
NSG1 applies to VM2	<input type="radio"/>	<input checked="" type="radio"/>
VM1 and VM2 connect to the same virtual network	<input checked="" type="radio"/>	<input type="radio"/>

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>

Reference:

<https://azure.microsoft.com/en-us/updates/general-availability-azure-network-watcher-connection-monitor-in-all-public-regions/>

Monitor and back up Azure resources (15 questions)

Case Study (2 questions)

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 Premium 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 264

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.

Answer Area

-Name "Reader"	<table border="1"><tr><td>Find-RoleCapability</td></tr><tr><td>Get-AzureADDirectoryRole</td></tr><tr><td>Get-AzRoleDefinition</td></tr><tr><td>Get-AzResourceProvider</td></tr></table>	Find-RoleCapability	Get-AzureADDirectoryRole	Get-AzRoleDefinition	Get-AzResourceProvider
Find-RoleCapability					
Get-AzureADDirectoryRole					
Get-AzRoleDefinition					
Get-AzResourceProvider					
ConvertFrom-Json ConvertFrom-String ConvertTo-Json ConvertTo-Xml					

Solution:

Answer Area

-Name "Reader"	<table border="1"><tr><td>Find-RoleCapability</td></tr><tr><td>Get-AzureADDirectoryRole</td></tr><tr><td>Get-AzRoleDefinition</td></tr><tr><td>Get-AzResourceProvider</td></tr></table>	Find-RoleCapability	Get-AzureADDirectoryRole	Get-AzRoleDefinition	Get-AzResourceProvider
Find-RoleCapability					
Get-AzureADDirectoryRole					
Get-AzRoleDefinition					
Get-AzResourceProvider					
ConvertFrom-Json ConvertFrom-String ConvertTo-Json ConvertTo-Xml					

Explanation/Reference

Question 265

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?

- Azure AD B2C
- dynamic groups and conditional access policies
- Azure AD Identity Protection
- an Azure logic app and the Microsoft Identity Management (MIM) client

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>

Question 249

HOTSPOT

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

Name	Member of	Role assigned
User1	Group1	<i>None</i>
User2	Group2	<i>None</i>
User3	Group1, Group2	User administrator

You enable password reset for contoso.onmicrosoft.com as shown in the Password Reset exhibit. (Click the **Password Reset** tab.)

Self service password reset enabled ⓘ

[None](#) [Selected](#) [All](#)

Select group >

Group2

i These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

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

Number of methods required to reset ⓘ

1 2

Methods available to users

- Mobile app notification
- Mobile app code
- Email
- Mobile phone
- Office phone
- Security questions

Number of questions required to register ⓘ

3 4 5

Number of questions required to reset ⓘ

3 4 5

Select security questions >

10 security questions selected

i These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

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

NOTE: Each correct selection is worth one point.

Answer Area

Statements	Yes	No
After User2 answers three security questions correctly, he can reset his password immediately.	<input type="radio"/>	<input type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input type="radio"/>
User3 can add security questions to the password reset process	<input type="radio"/>	<input type="radio"/>

Solution:**Answer Area**

Statements	Yes	No
After User2 answers three security questions correctly, he can reset his password immediately.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
User3 can add security questions to the password reset process	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Explanation/Reference

Explanation:

Box 1: No

Two methods are required.

Box 2: No

Self-service password reset is only enabled for Group2, and User1 is not a member of Group2.

Box 3: Yes

As a User Administrator, User3 can add security questions to the reset process.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/quickstart-sspr>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/active-directory-passwords-faq>

Question 250

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?

- Assign the User administrator role to User1.
- From the Device settings blade, modify the **Maximum number of devices per user** setting.
- Create a point-to-site VPN from the home network of User1 to Azure.
- From the Device settings blade, modify the **Users may join devices to Azure AD** setting.

Explanation/Reference

Explanation:

The Maximum number of devices setting enables you to select the maximum number of devices that a user can have in Azure AD. If a user reaches this quota, they will not be able to add additional devices until one or more of the existing devices are removed.

Incorrect Answers:

C: Azure AD Join enables users to join their devices to Active Directory from anywhere as long as they have connectivity with the Internet.

D: The Users may join devices to Azure AD setting enables you to select the users who can join devices to Azure AD. Options are All, Selected and None. The default is All.

Reference:

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

<http://techgenix.com/pros-and-cons-azure-ad-join/>

Question 251

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?

- Yes
- No

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 252

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?

- Service Map
- Connection troubleshoot
- Network Performance Monitor
- Effective routes

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 253

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.

Actions**Answer Area**

Download and run the script to mount a drive on the local computer



Select a restore point that contains the deleted files

From the Azure portal, click **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



Solution:

Actions

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

Answer Area

From the Azure portal, click **File Recovery** from the vault

Select a restore point that contains the deleted files

Download and run the script to mount a drive on the local computer

Copy the files by using File Explorer



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:

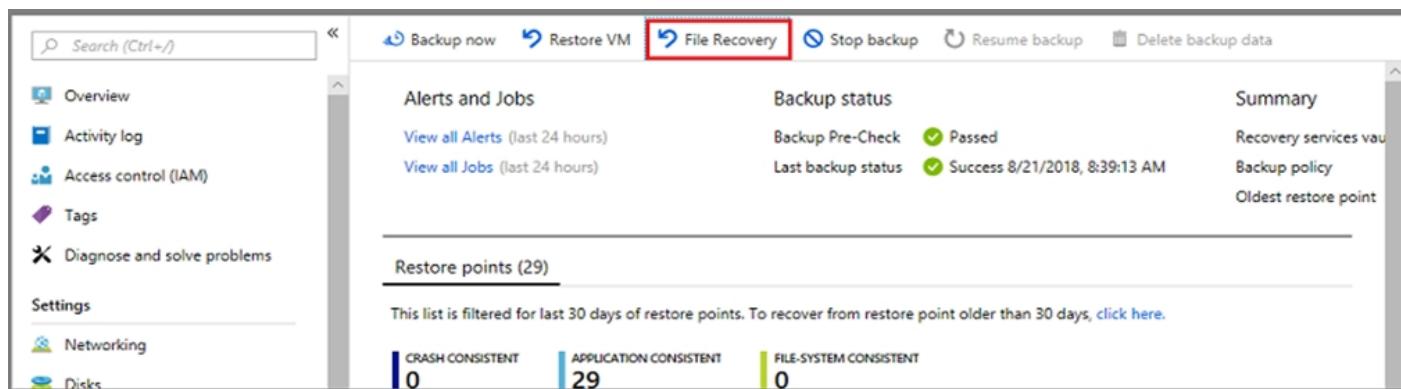
Step 4: Copy the files using File Explorer!

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

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→ 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 host machine**. Then you can browse and recover files.

Box 1: 6

5 latest daily recovery points, which includes the weekly backup from the previous Sunday, plus the monthly recovery point.

Box 2: 8

5 latest daily recovery points, plus two weekly backups, plus the monthly recovery point.

Reference:

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