AZ-500

Number: AZ-500
Passing Score: 800
Time Limit: 120 min
File Version: 1

AZ-500

Manage identity and access

Testlet 1

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**

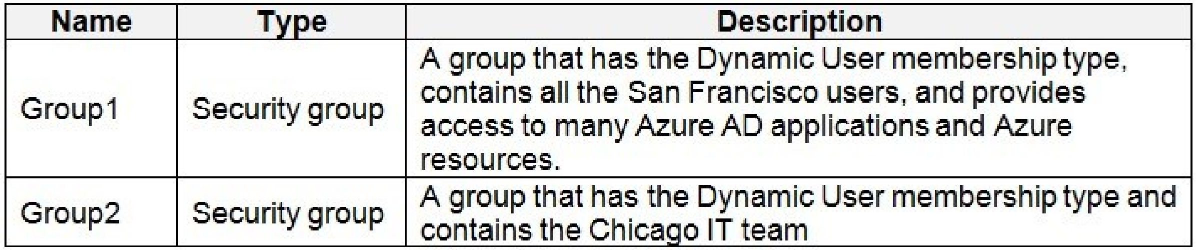
Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

Existing Environment

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

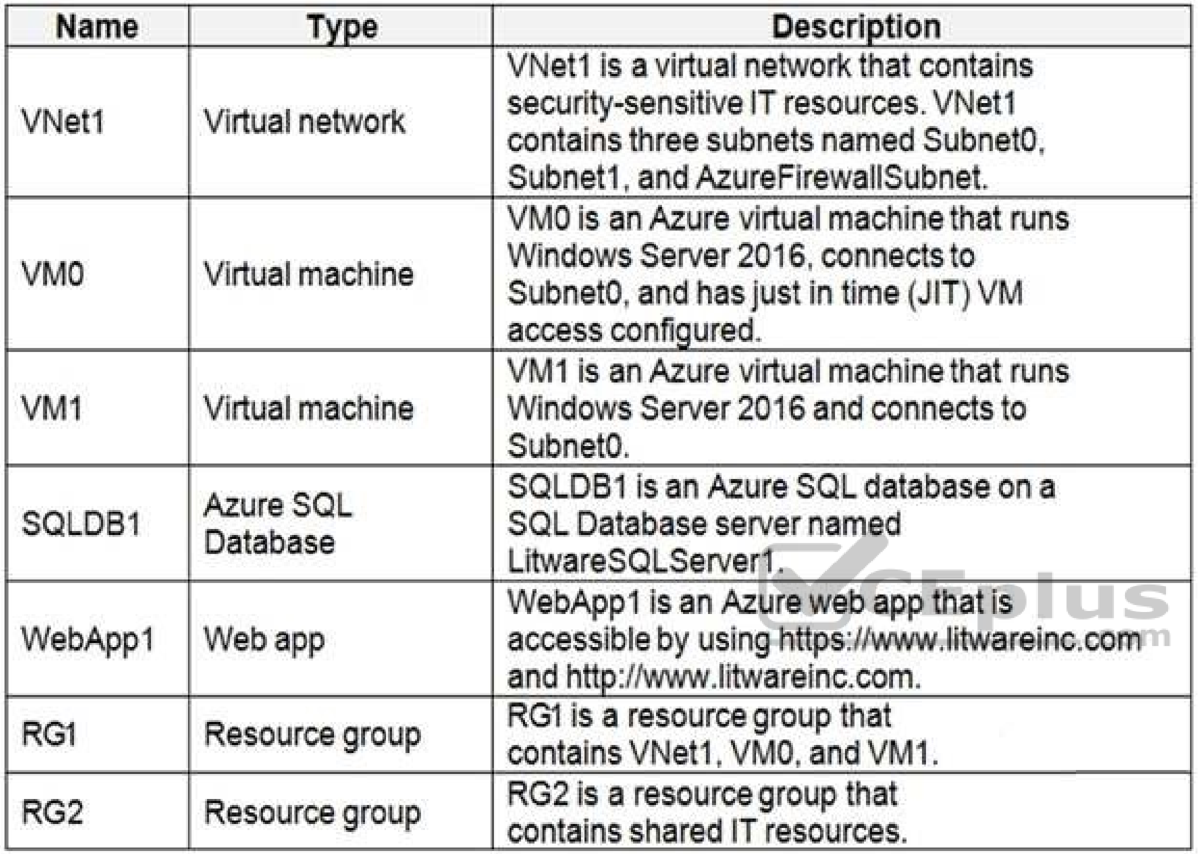
Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



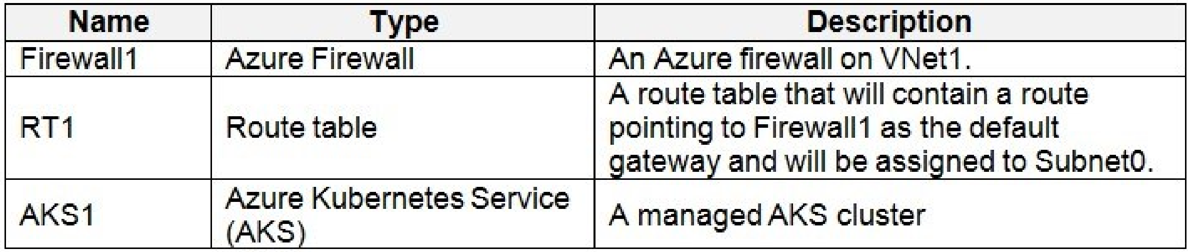
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subnet0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://www.litwareinc.com and http://www.litwareinc.com.
RG1	Resource group	RG1 is a resource group that contains VNet1, VM0, and VM1.
RG2	Resource group	RG2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Standard tier.

Requirements

Planned Changes

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

- All San Francisco users and their devices must be members of Group1.
- The members of Group2 must be assigned the Contributor role to RG2 by using a permanent eligible assignment.
- Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

- Microsoft Antimalware must be installed on the virtual machines in RG1.
- The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.
- Azure AD users must be able to authenticate to AKS1 by using their Azure AD credentials.
- Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.
- A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in RG1. Role1 must be available only for RG1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

- The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials. ▪
WebApp1 must enforce mutual authentication.

General Requirements

Litware identifies the following general requirements:

- Whenever possible, administrative effort must be minimized.▪
Whenever possible, use of automation must be maximized.

QUESTION 1
You need to meet the identity and access requirements for Group1.

What should you do?

A. Add a membership rule to Group1.
B. Delete Group1. Create a new group named Group1 that has a group type of Office 365. Add users and devices to the group.
C. Modify the membership rule of Group1.
D. Change the membership type of Group1 to **Assigned**. Create two groups that have dynamic memberships. Add the new groups to Group1.

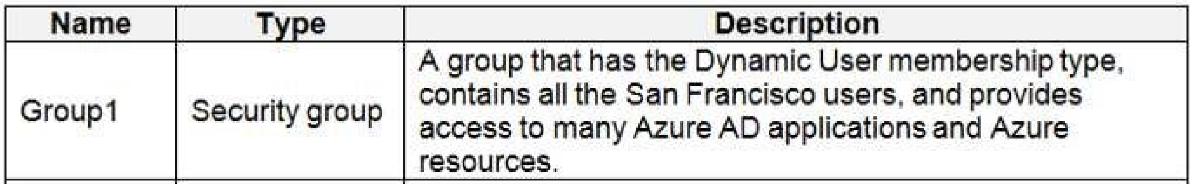
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Incorrect Answers:
A, C: You can create a dynamic group for devices or for users, but you can't create a rule that contains both users and devices.

D: For assigned group you can only add individual members.

Scenario:
Litware identifies the following identity and access requirements: All San Francisco users and their devices must be members of Group1.
The tenant currently contain this group:



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.

References: https://docs.microsoft.com/en-us/azure/active-directory/users-groups-roles/groups-dynamic-membership https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-groups-create-azure-portal

Manage identity and access

Testlet 2

Case Study

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

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Overview

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

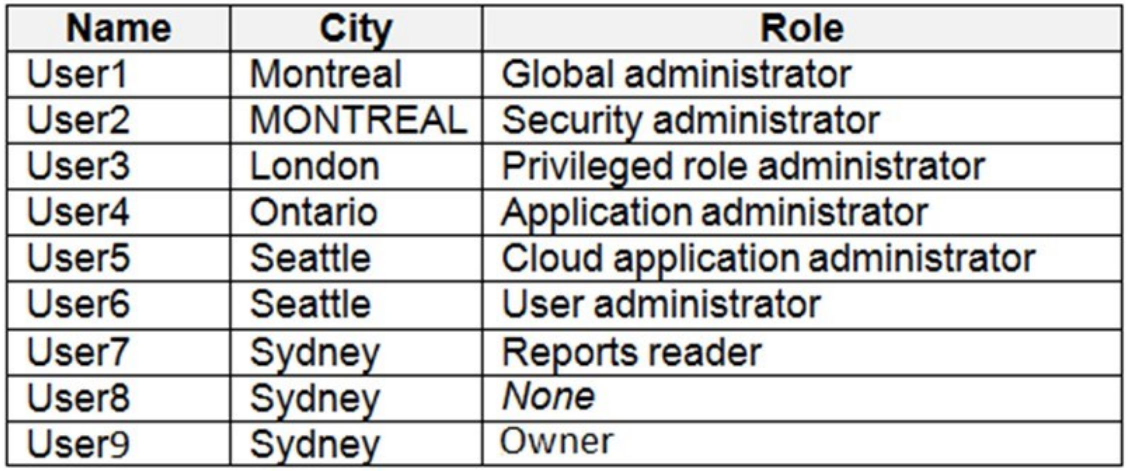
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment

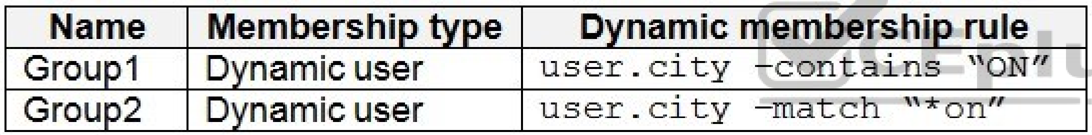
Azure AD

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

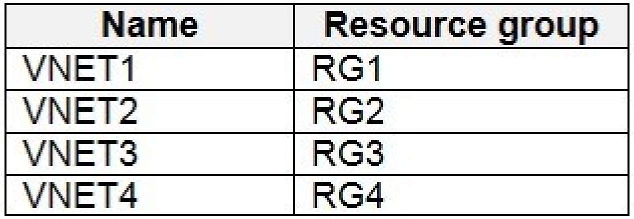


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city -contains “ON”`
Group2	Dynamic user	`user.city -match “*on”`

Sub1

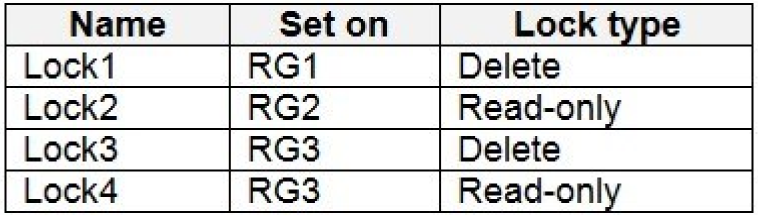
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



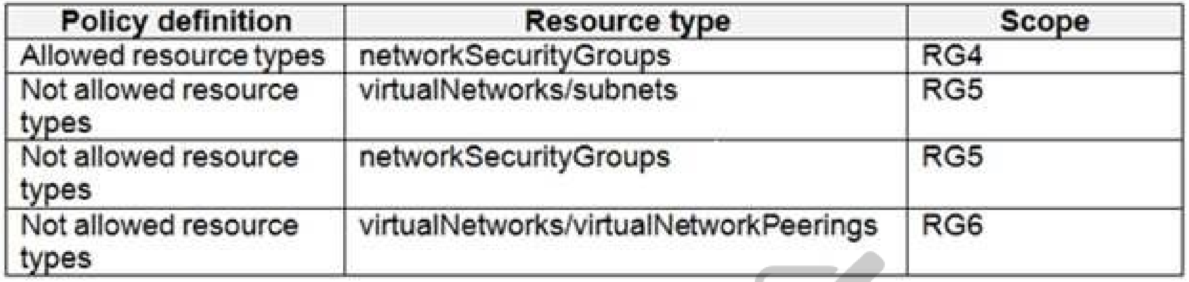
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

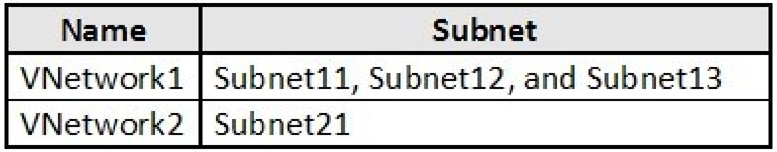
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

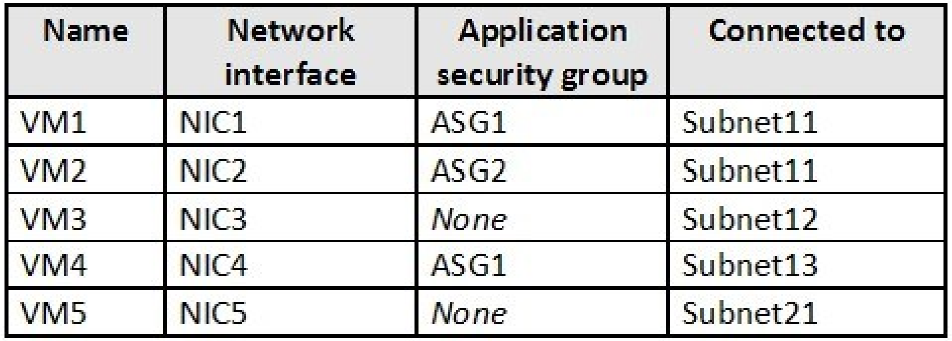
Sub2

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

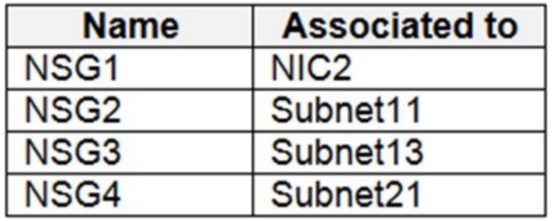
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

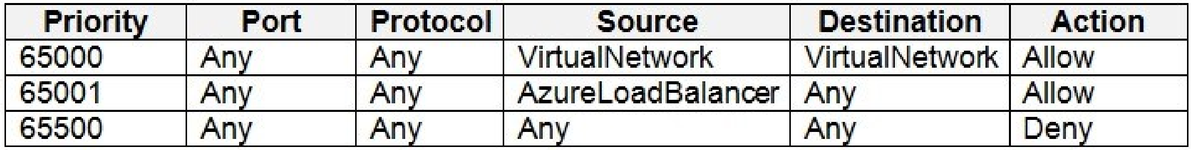
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



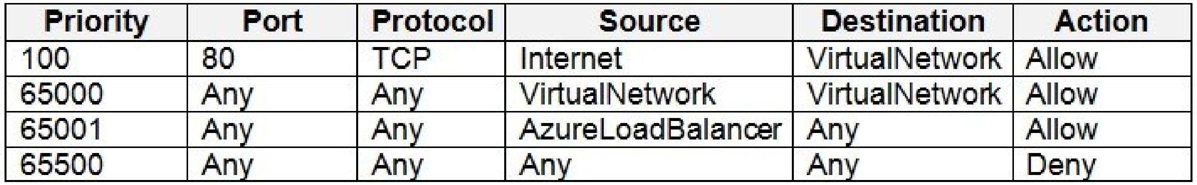
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



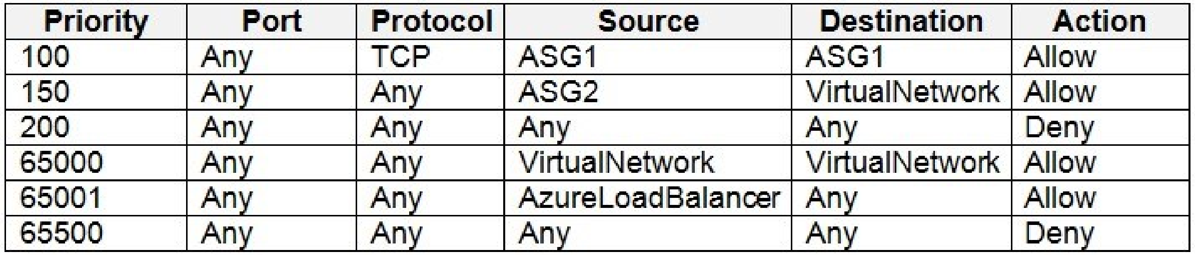
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



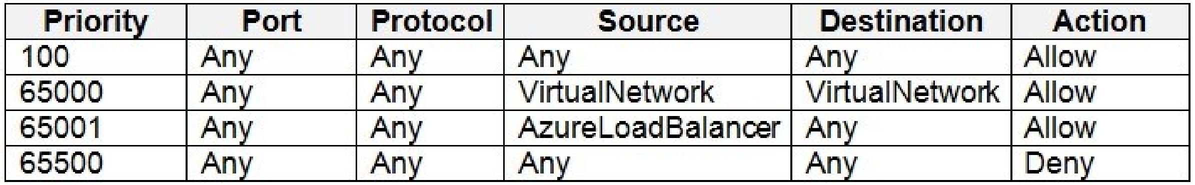
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



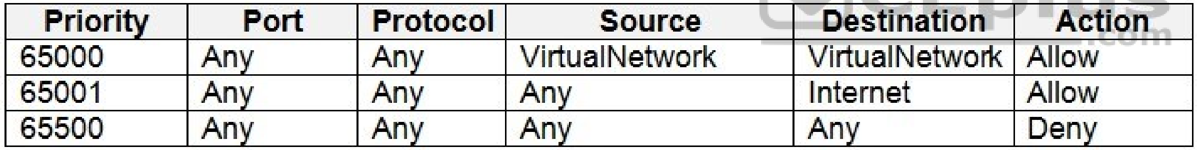
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements

Contoso identifies the following technical requirements:

- Deploy Azure Firewall to VNetwork1 in Sub2.

- Register an application named App2 in contoso.com.
- Whenever possible, use the principle of least privilege.
- Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

QUESTION 1

You need to ensure that User2 can implement PIM.

What should you do first?

A. Assign User2 the Global administrator role.
B. Configure authentication methods for contoso.com.
C. Configure the identity secure score for contoso.com.
D. Enable multi-factor authentication (MFA) for User2.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To start using PIM in your directory, you must first enable PIM.
1. Sign in to the Azure portal as a Global Administrator of your directory.

You must be a Global Administrator with an organizational account (for example, @yourdomain.com), not a Microsoft account (for example, @outlook.com), to enable PIM for a directory.

Scenario: Technical requirements include: Enable Azure AD Privileged Identity Management (PIM) for contoso.com

References:
https://docs.microsoft.com/bs-latn-ba/azure/active-directory/privileged-identity-management/pim-getting-started

Manage identity and access

Question Set 3

QUESTION 1
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You have an Azure subscription named Sub1.

You have an Azure Storage account named sa1 in a resource group named RG1.

Users and applications access the blob service and the file service in sa1 by using several shared access signatures (SASs) and stored access policies.

You discover that unauthorized users accessed both the file service and the blob service.

You need to revoke all access to sa1.

Solution: You create a new stored access policy.

Does this meet the goal?

A. Yes
B. No

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately effects all of the shared access signatures associated with it.

References: https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

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 a hybrid configuration of Azure Active Directory (Azure AD).

You have an Azure HDInsight cluster on a virtual network.

You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.

You need to configure the environment to support the planned authentication.

Solution: You deploy the On-premises data gateway to the on-premises network.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.

Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions: ▪
Create Azure Virtual Network.
▪ Create a custom DNS server in the Azure Virtual Network.
▪ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
▪ Configure forwarding between the custom DNS server and your on-premises DNS server.

References: https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

QUESTION 3
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
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You have an Azure HDInsight cluster on a virtual network.

You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.

You need to configure the environment to support the planned authentication.

Solution: You create a site-to-site VPN between the virtual network and the on-premises network.

Does this meet the goal?

A. Yes

B. No

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.

Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions: ▪ Create Azure Virtual Network.
▪ Create a custom DNS server in the Azure Virtual Network.
▪ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
▪ Configure forwarding between the custom DNS server and your on-premises DNS server.

References: https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

QUESTION 4
Your network contains an Active Directory forest named contoso.com. The forest contains a single domain.

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You plan to deploy Azure AD Connect and to integrate Active Directory and the Azure AD tenant.

You need to recommend an integration solution that meets the following requirements:

▪ Ensures that password policies and user logon restrictions apply to user accounts that are synced to the tenant ▪ Minimizes the number of servers required for the solution.

Which authentication method should you include in the recommendation?

A. federated identity with Active Directory Federation Services (AD FS)
B. password hash synchronization with seamless single sign-on (SSO)
C. pass-through authentication with seamless single sign-on (SSO)

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:

Explanation:

Password hash synchronization requires the least effort regarding deployment, maintenance, and infrastructure. This level of effort typically applies to organizations that only need their users to sign in to Office 365, SaaS apps, and other Azure AD-based resources. When turned on, password hash synchronization is part of the Azure AD Connect sync process and runs every two minutes.

Incorrect Answers:

A: A federated authentication system relies on an external trusted system to authenticate users. Some companies want to reuse their existing federated system investment with their Azure AD hybrid identity solution. The maintenance and management of the federated system falls outside the control of Azure AD. It's up to the organization by using the federated system to make sure it's deployed securely and can handle the authentication load.

C: For pass-through authentication, you need one or more (we recommend three) lightweight agents installed on existing servers. These agents must have access to your on-premises Active Directory Domain Services, including your on-premises AD domain controllers. They need outbound access to the Internet and access to your domain controllers. For this reason, it's not supported to deploy the agents in a perimeter network.

Pass-through Authentication requires unconstrained network access to domain controllers. All network traffic is encrypted and limited to authentication requests.

References: https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-pta

QUESTION 5

Your network contains an on-premises Active Directory domain named corp.contoso.com.

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You sync all on-premises identities to Azure AD.

You need to prevent users who have a `givenName` attribute that starts with `TEST` from being synced to Azure AD. The solution must minimize administrative effort.

What should you use?

A. Synchronization Rules Editor
B. Web Service Configuration Tool
C. Azure Portal
D. Active Directory Users and Computers

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Use the Synchronization Rules Editor and write attribute-based filtering rule.

References: https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-change-the-configuration

QUESTION 6
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

An administrator named Admin1 has access to the following identities:

- An OpenID-enabled user account
- A Hotmail account
- An account in contoso.com
- An account in an Azure AD tenant named fabrikam.com

You plan to use Azure Account Center to transfer the ownership of Sub1 to Admin1.

To which accounts can you transfer the ownership of Sub1?

A. contoso.com only
B. contoso.com, fabrikam.com, and Hotmail only
C. contoso.com and fabrikam.com only
D. contoso.com, fabrikam.com, Hotmail, and OpenID-enabled user account

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When you transfer billing ownership of your subscription to an account in another Azure AD tenant, you can move the subscription to the new account's tenant. If you do so, all users, groups, or service principals who had role based access (RBAC) to manage subscriptions and its resources lose their access. Only the user in the new account who accepts your transfer request will have access to manage the resources.

Reference: https://docs.microsoft.com/en-us/azure/billing/billing-subscription-transfer https://docs.microsoft.com/en-us/azure/billing/billing-subscription-transfer#transferring-subscription-to-an-account-in-another-azure-ad-tenant

QUESTION 7
Your company plans to create separate subscriptions for each department. Each subscription will be associated to the same Azure Active Directory (Azure AD) tenant.

You need to configure each subscription to have the same role assignments.

What should you use?

A. Azure Security Center
B. Azure Policy
C. Azure AD Privileged Identity Management (PIM)
D. Azure Blueprints

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Just as a blueprint allows an engineer or an architect to sketch a project's design parameters, Azure Blueprints enables cloud architects and central information technology groups to define a repeatable set of Azure resources that implements and adheres to an organization's standards, patterns, and requirements.

Blueprints are a declarative way to orchestrate the deployment of various resource templates and other artifacts such as: ▪
Role Assignments
▪ Policy Assignments
▪ Azure Resource Manager templates
▪ Resource Groups

Reference: https://docs.microsoft.com/en-us/azure/governance/blueprints/overview

QUESTION 8
You have an Azure subscription.

You create an Azure web app named Contoso1812 that uses an S1 App Service plan.

You plan to create a CNAME DNS record for www.contoso.com that points to Contoso1812.

You need to ensure that users can access Contoso1812 by using the https://www.contoso.com URL.

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

NOTE: Each correct selection is worth one point.

A. Turn on the system-assigned managed identity for Contoso1812.
B. Add a hostname to Contoso1812.
C. Scale out the App Service plan of Contoso1812.
D. Add a deployment slot to Contoso1812.
E. Scale up the App Service plan of Contoso1812.
F. Upload a PFX file to Contoso1812.

Correct Answer: BF
Section: (none)
Explanation

Explanation/Reference:
Explanation:
B: You can configure Azure DNS to host a custom domain for your web apps. For example, you can create an Azure web app and have your users access it using either www.contoso.com or contoso.com as a fully qualified domain name (FQDN). To do this, you have to create three records:

A root "A" record pointing to contoso.com
A root "TXT" record for verification
A "CNAME" record for the www name that points to the A record

F: To use HTTPS, you need to upload a PFX file to the Azure Web App. The PFX file will contain the SSL certificate required for HTTPS.

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

QUESTION 9
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You have an Azure subscription named sub1.

You have an Azure Storage account named sa1 in a resource group named RG1.

Users and applications access the blob service and the file service in sa1 by using several shared access signatures (SASs) and stored access policies.

You discover that unauthorized users accessed both the file service and the blob service.

You need to revoke all access to sa1.

Solution: You create a lock on sa1.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.

References: https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

QUESTION 10
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 hybrid configuration of Azure Active Directory (Azure AD).

You have an Azure HDInsight cluster on a virtual network.

You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.

You need to configure the environment to support the planned authentication.

Solution: You deploy Azure Active Directory Domain Services (Azure AD DS) to the Azure subscription.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.

Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions: ▪
Create Azure Virtual Network.
▪ Create a custom DNS server in the Azure Virtual Network.
▪ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
▪ Configure forwarding between the custom DNS server and your on-premises DNS server.

References: https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

QUESTION 11
Your network contains an Active Directory forest named contoso.com. You have an Azure Directory (Azure AD) tenant named contoso.com.

You plan to configure synchronization by using the Express Settings installation option in Azure AD Connect.

You need to identify which roles and groups are required to perform the planned configuration. The solution must use the principle of least privilege.

Which two roles and groups should you identify? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. the Domain Admins group in Active Directory

B. the Security administrator role in Azure AD
C. the Global administrator role in Azure AD
D. the User administrator role in Azure AD
E. the Enterprise Admins group in Active Directory

Correct Answer: CE
Section: (none)
Explanation

Explanation/Reference:
References: https://docs.microsoft.com/en-us/azure/active-directory/hybrid/reference-connect-accounts-permissions

QUESTION 12
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You have a hybrid configuration of Azure Active Directory (Azure AD).

You have an Azure HDInsight cluster on a virtual network.

You plan to allow users to authenticate to the cluster by using their on-premises Active Directory credentials.

You need to configure the environment to support the planned authentication.

Solution: You deploy an Azure AD Application Proxy.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Instead, you connect HDInsight to your on-premises network by using Azure Virtual Networks and a VPN gateway.

Note: To allow HDInsight and resources in the joined network to communicate by name, you must perform the following actions: ▪
Create Azure Virtual Network.
▪ Create a custom DNS server in the Azure Virtual Network.
▪ Configure the virtual network to use the custom DNS server instead of the default Azure Recursive Resolver.
▪ Configure forwarding between the custom DNS server and your on-premises DNS server.

Reference:
https://docs.microsoft.com/en-us/azure/hdinsight/connect-on-premises-network

QUESTION 13
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You have an Azure subscription named Sub1.

You have an Azure Storage account named sa1 in a resource group named RG1.

Users and applications access the blob service and the file service in sa1 by using several shared access signatures (SASs) and stored access policies.

You discover that unauthorized users accessed both the file service and the blob service.

You need to revoke all access to sa1.

Solution: You regenerate the access keys.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Instead you should create a new stored access policy.

To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.

Reference:
https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

QUESTION 14
You have a hybrid configuration of Azure Active Directory (Azure AD). You have an Azure SQL Database instance that is configured to support Azure AD authentication.

Database developers must connect to the database instance and authenticate by using their on-premises Active Directory account.

You need to ensure that developers can connect to the instance by using Microsoft SQL Server Management Studio. The solution must minimize authentication prompts.

Which authentication method should you recommend?

A. Active Directory - Password
B. Active Directory - Universal with MFA support
C. SQL Server Authentication
D. Active Directory - Integrated

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Use Active Directory password authentication when connecting with an Azure AD principal name using the Azure AD managed domain.

Use this method to authenticate to SQL DB/DW with Azure AD for native or federated Azure AD users. A native user is one explicitly created in Azure AD and being authenticated using user name and password, while a federated user is a Windows user whose domain is federated with Azure AD. The latter method (using user & password) can be used when a user wants to use their windows credential, but their local machine is not joined with the domain (for example, using a remote access). In this case, a Windows user can indicate their domain account and password and can authenticate to SQL DB/DW using federated credentials.

Incorrect Answers:

D: Use Active Directory integrated authentication if you are logged in to Windows using your Azure Active Directory credentials from a federated domain.

References: https://docs.microsoft.com/en-us/azure/sql-database/sql-database-aad-authentication-configure

QUESTION 15
You plan to use Azure Resource Manager templates to perform multiple deployments of identically configured Azure virtual machines. The password for the administrator account of each deployment is stored as a secret in different Azure key vaults.

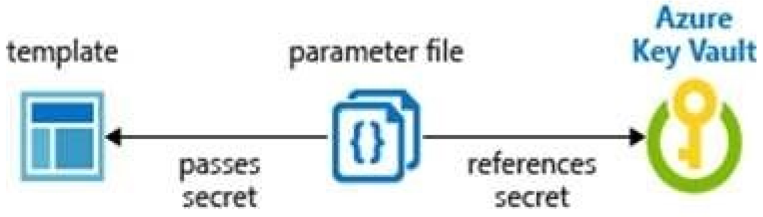
You need to identify a method to dynamically construct a resource ID that will designate the key vault containing the appropriate secret during each deployment. The name of the key vault and the name of the secret will be provided as inline parameters.

What should you use to construct the resource ID?

A. a key vault access policy
B. a linked template
C. a parameters file
D. an automation account

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You reference the key vault in the parameter file, not the template. The following image shows how the parameter file references the secret and passes that value to the template.



Reference: https://docs.microsoft.com/en-us/azure/azure-resource-manager/resource-manager-keyvault-parameter **QUESTION 16**
You have an Azure subscription.

You configure the subscription to use a different Azure Active Directory (Azure AD) tenant.

What are two possible effects of the change? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Role assignments at the subscription level are lost.
B. Virtual machine managed identities are lost.
C. Virtual machine disk snapshots are lost.
D. Existing Azure resources are deleted.

Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/active-directory-how-subscriptions-associated-directory

QUESTION 17
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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You have an Azure subscription named Sub1.

You have an Azure Storage account named sa1 in a resource group named RG1.

Users and applications access the blob service and the file service in sa1 by using several shared access signatures (SASs) and stored access policies.

You discover that unauthorized users accessed both the file service and the blob service.

You need to revoke all access to sa1.

Solution: You generate new SASs.

Does this meet the goal?

A. Yes

B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Instead you should create a new stored access policy.

To revoke a stored access policy, you can either delete it, or rename it by changing the signed identifier. Changing the signed identifier breaks the associations between any existing signatures and the stored access policy. Deleting or renaming the stored access policy immediately affects all of the shared access signatures associated with it.

References: https://docs.microsoft.com/en-us/rest/api/storageservices/Establishing-a-Stored-Access-Policy

QUESTION 18
You have an Azure subscription that contains virtual machines.

You enable just in time (JIT) VM access to all the virtual machines.

You need to connect to a virtual machine by using Remote Desktop.

What should you do first?

A. From Azure Directory (Azure AD) Privileged Identity Management (PIM), activate the Security administrator user role.
B. From Azure Active Directory (Azure AD) Privileged Identity Management (PIM), activate the Owner role for the virtual machine.
C. From the Azure portal, select the virtual machine, select **Connect**, and then select **Request access**.
D. From the Azure portal, select the virtual machine and add the Network Watcher Agent virtual machine extension.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference:

https://docs.microsoft.com/en-us/azure/virtual-machines/windows/connect-logon

Implement platform protection

Testlet 1

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**

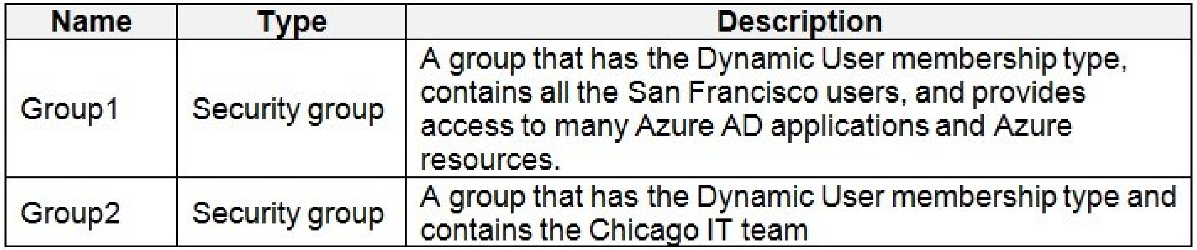
Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

Existing Environment

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

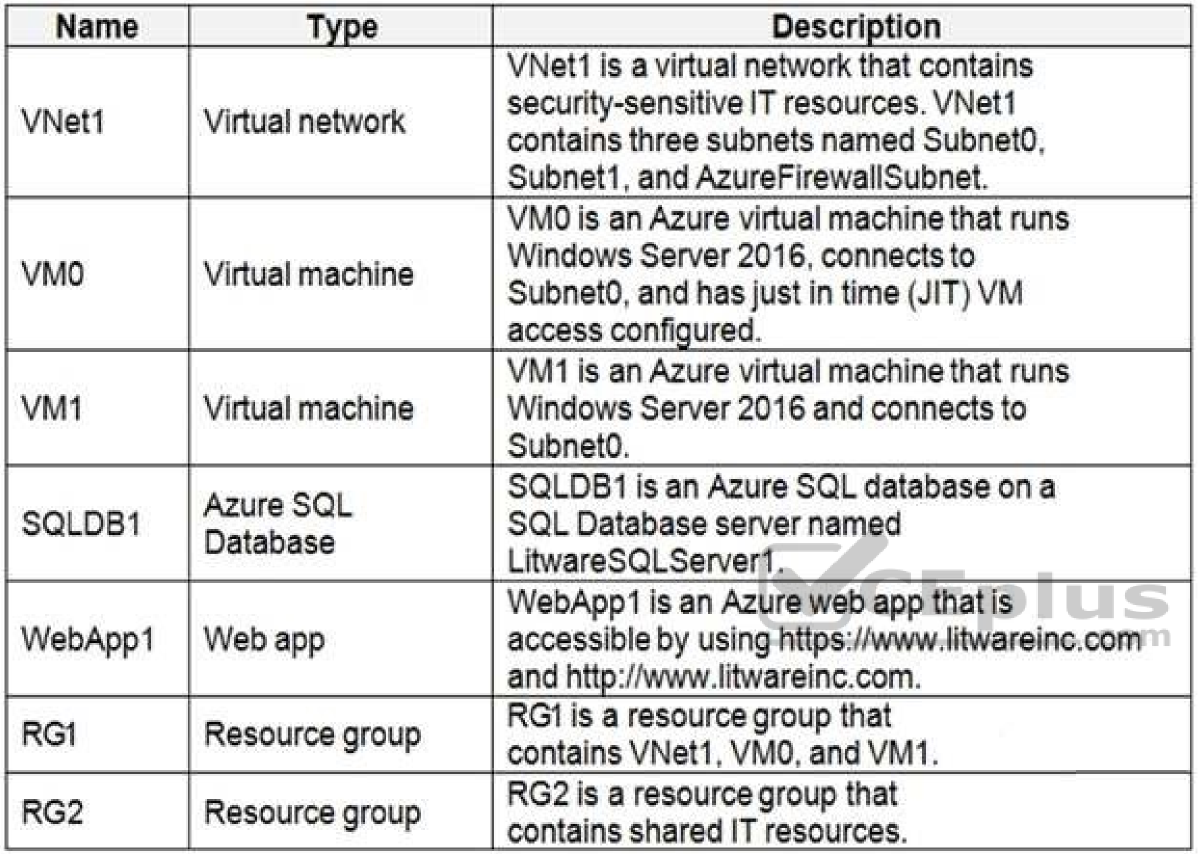
Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subnet0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://www.litwareinc.com and http://www.litwareinc.com.
RG1	Resource group	RG1 is a resource group that contains VNet1, VM0, and VM1.
RG2	Resource group	RG2 is a resource group that contains shared IT resources.

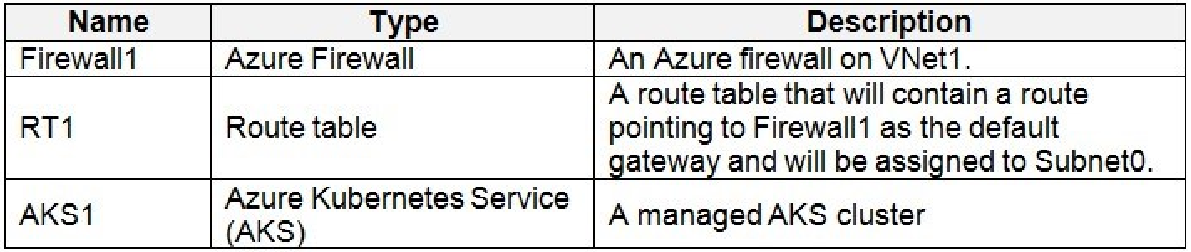
Identity and Access Requirements

Azure Security Center is set to the Standard tier.

Requirements

Planned Changes

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Litware identifies the following identity and access requirements:

- All San Francisco users and their devices must be members of Group1.
- The members of Group2 must be assigned the Contributor role to RG2 by using a permanent eligible assignment.
- Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

- Microsoft Antimalware must be installed on the virtual machines in RG1.
- The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.
- Azure AD users must be able to authenticate to AKS1 by using their Azure AD credentials.
- Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.
- A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in RG1. Role1 must be available only for RG1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

- The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials. ▪
WebApp1 must enforce mutual authentication.

General Requirements

Litware identifies the following general requirements:
- Whenever possible, administrative effort must be minimized. ▪
Whenever possible, use of automation must be maximized.

QUESTION 1
You need to ensure that users can access VM0. The solution must meet the platform protection requirements.

What should you do?

A. Move VM0 to Subnet1.
B. On Firewall, configure a network traffic filtering rule.
C. Assign RT1 to AzureFirewallSubnet.
D. On Firewall, configure a DNAT rule.

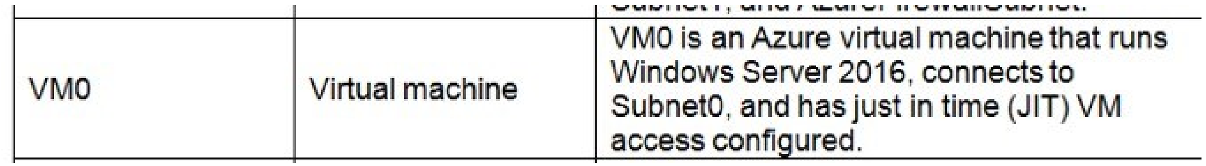
Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Azure Firewall has the following known issue:
Conflict with Azure Security Center (ASC) Just-in-Time (JIT) feature.

If a virtual machine is accessed using JIT, and is in a subnet with a user-defined route that points to Azure Firewall as a default gateway, ASC JIT doesn't work. This is a result of asymmetric routing – a packet comes in via the virtual machine public IP (JIT opened the access), but the return path is via the firewall, which drops the packet because there is no established session on the firewall.

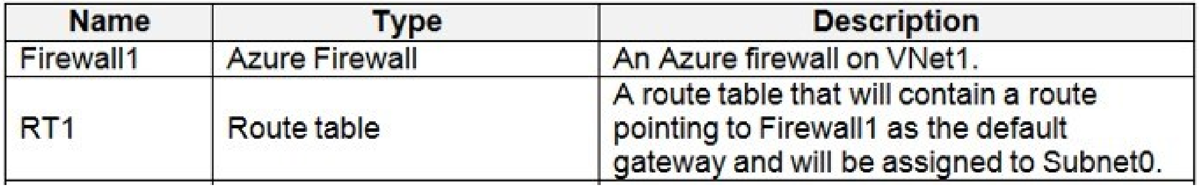
Solution: To work around this issue, place the JIT virtual machines on a separate subnet that doesn't have a user-defined route to the firewall.

Scenario:



		Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.

Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.

References:
https://docs.microsoft.com/en-us/azure/firewall/overview

Implement platform protection

Testlet 2

Case Study

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

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

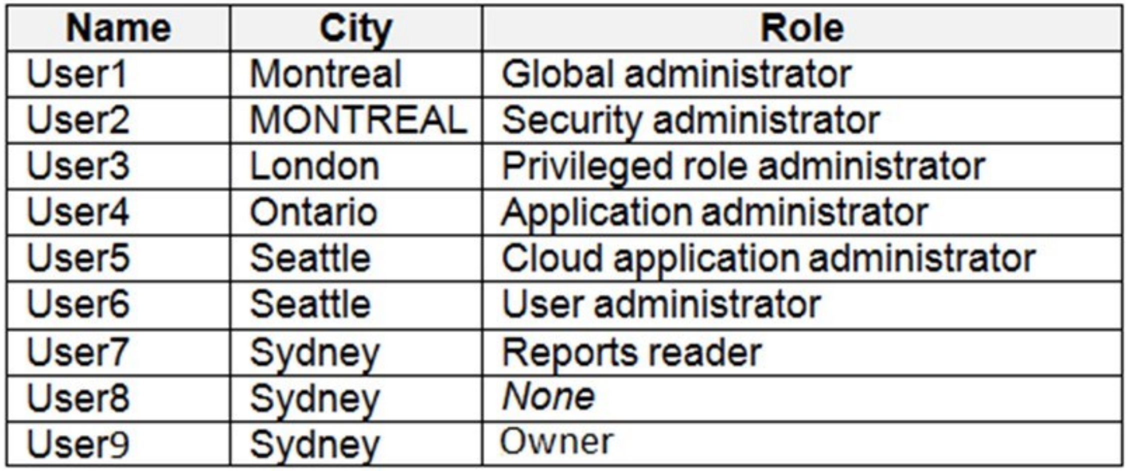
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment

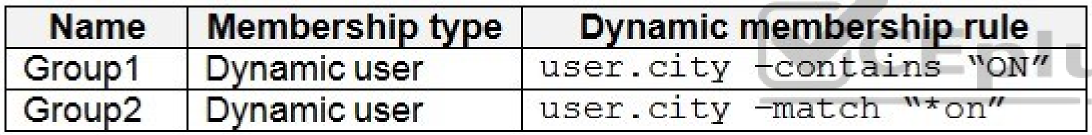
Azure AD

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

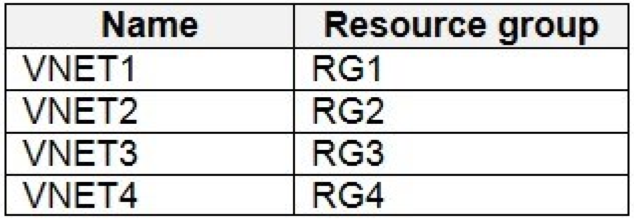


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city -contains “ON”`
Group2	Dynamic user	`user.city -match “*on”`

Sub1

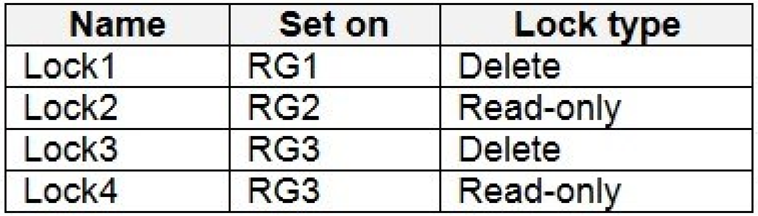
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



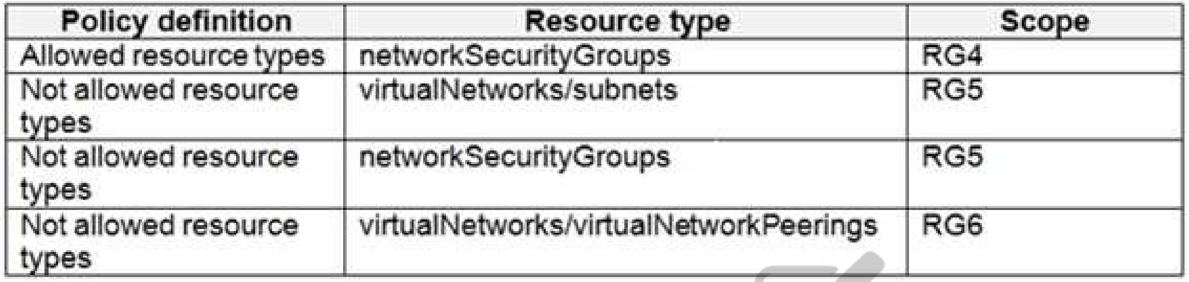
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

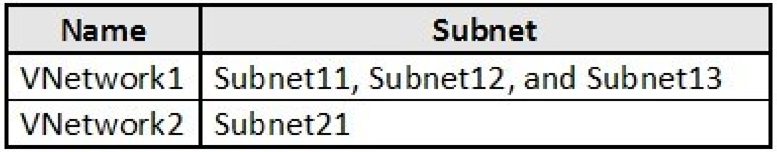
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

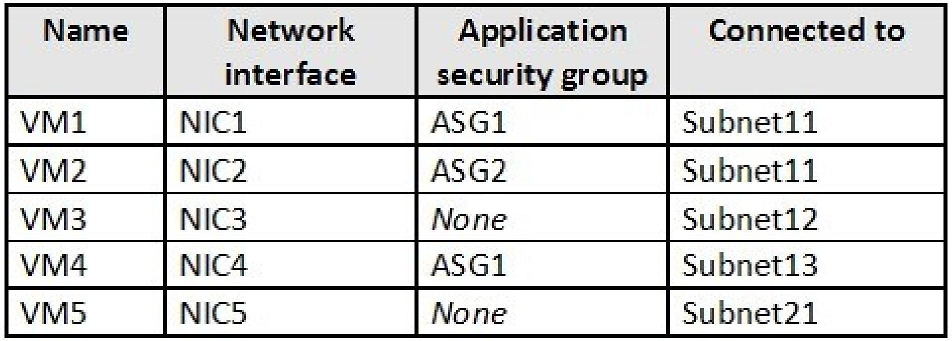
Sub2

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

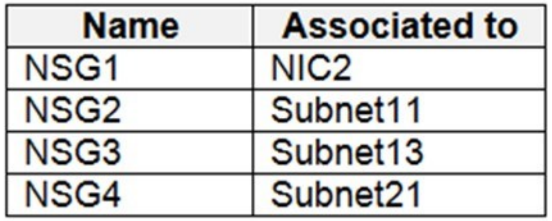
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

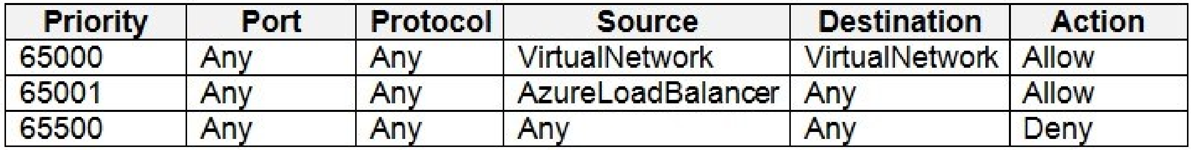
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



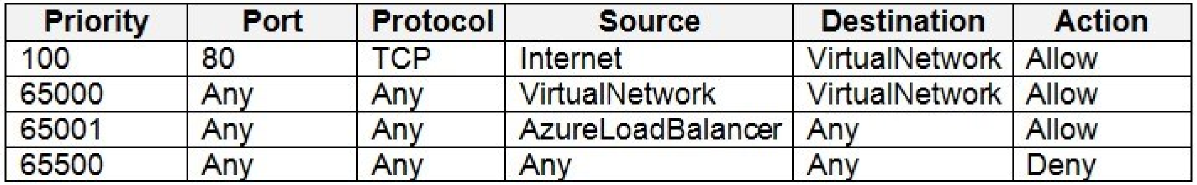
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



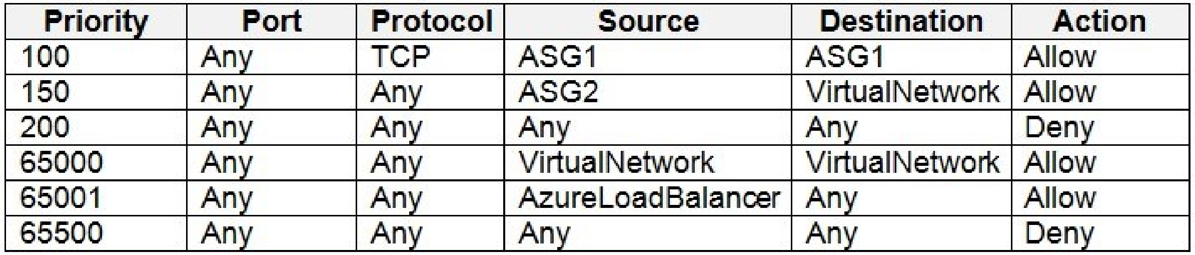
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



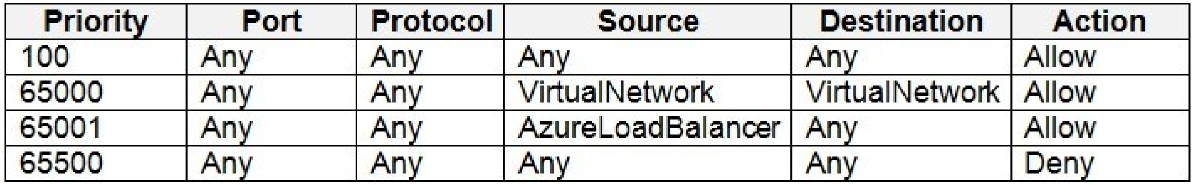
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



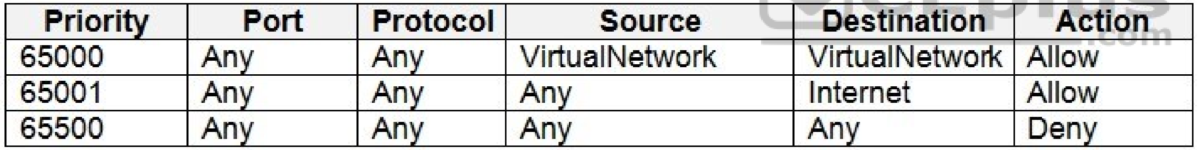
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements

Contoso identifies the following technical requirements:

- Deploy Azure Firewall to VNetwork1 in Sub2.

- Register an application named App2 in contoso.com.
- Whenever possible, use the principle of least privilege.
- Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

QUESTION 1
You need to meet the technical requirements for VNetwork1.

What should you do first?

A. Create a new subnet on VNetwork1.
B. Remove the NSGs from Subnet11 and Subnet13.
C. Associate an NSG to Subnet12.
D. Configure DDoS protection for VNetwork1.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
From scenario: Deploy Azure Firewall to VNetwork1 in Sub2.

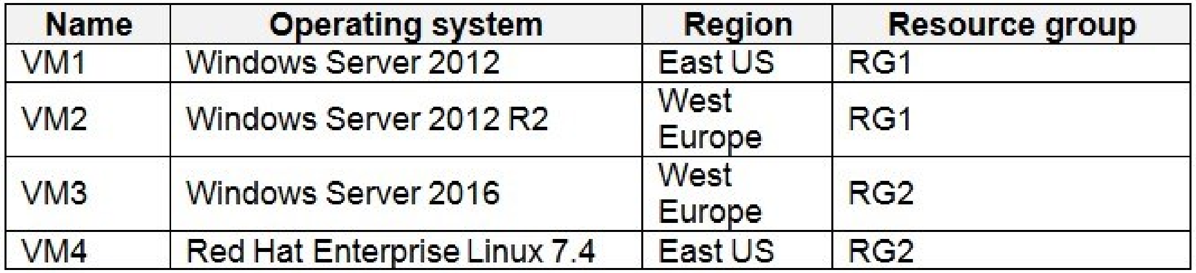
Azure firewall needs a dedicated subnet named AzureFirewallSubnet.

References:
https://docs.microsoft.com/en-us/azure/firewall/tutorial-firewall-deploy-portal

Implement platform protection

Question Set 3

QUESTION 1
You have the Azure virtual machines shown in the following table.



Name	Operating system	Region	Resource group
VM1	Windows Server 2012	East US	RG1
VM2	Windows Server 2012 R2	West Europe	RG1
VM3	Windows Server 2016	West Europe	RG2
VM4	Red Hat Enterprise Linux 7.4	East US	RG2

You create an Azure Log Analytics workspace named Analytics1 in RG1 in the East US region.

Which virtual machines can be enrolled in Analytics1?

A. VM1 only

B. VM1, VM2, and VM3 only

C. VM1, VM2, VM3, and VM4

D. VM1 and VM4 only

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Note: Create a workspace
▪ In the Azure portal, click All services. In the list of resources, type Log Analytics. As you begin typing, the list filters based on your input. Select Log Analytics. ▪ Click Create, and then select choices for the following items:

Provide a name for the new Log Analytics workspace, such as DefaultLAWorkspace. OMS workspaces are now referred to as Log Analytics workspaces.

Select a Subscription to link to by selecting from the drop-down list if the default selected is not appropriate.

For Resource Group, select an existing resource group that contains one or more Azure virtual machines.

Select the Location your VMs are deployed to. For additional information, see which regions Log Analytics is available in.

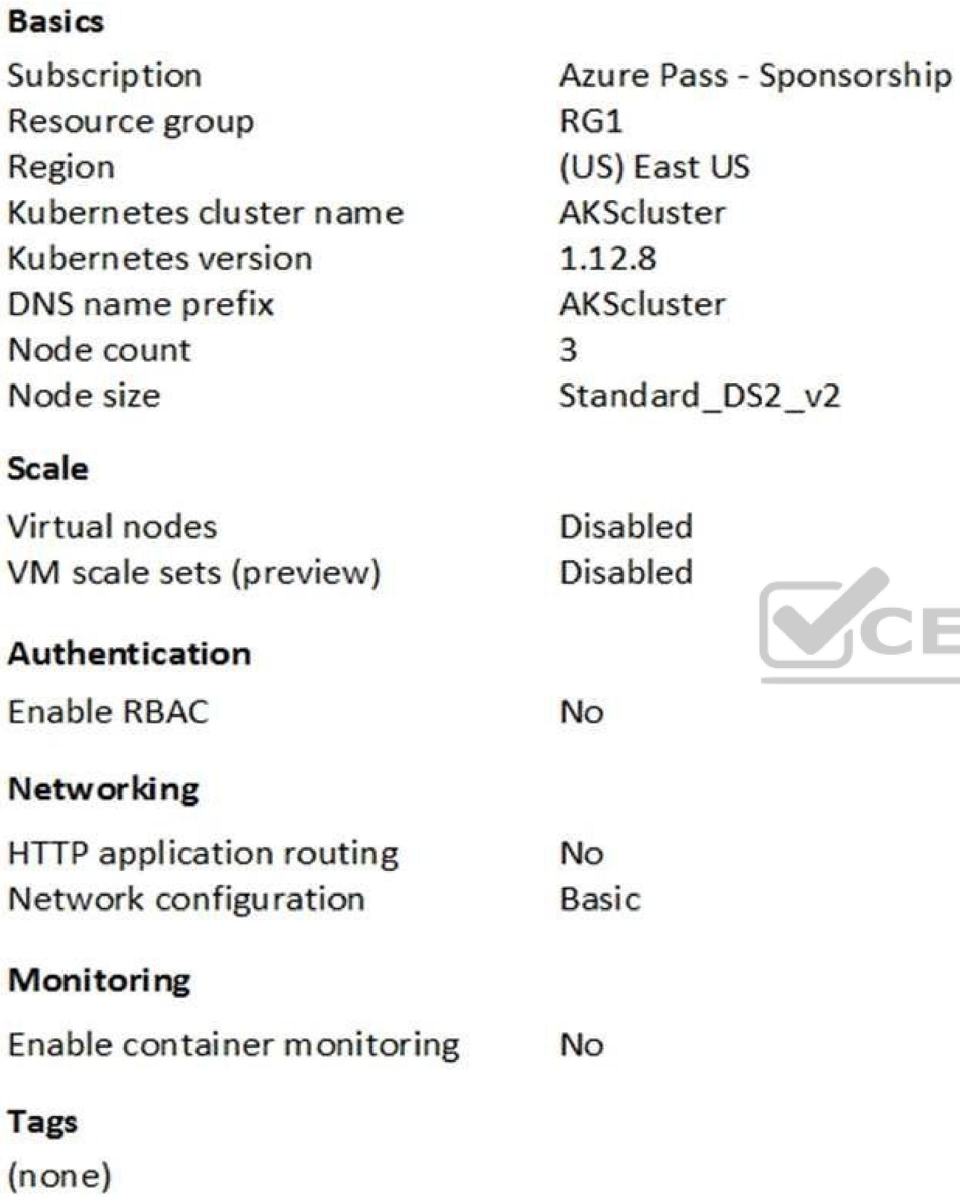
Incorrect Answers:
B, C: A Log Analytics workspace provides a geographic location for data storage. VM2 and VM3 are at a different location.

D: VM4 is a different resource group.

References: https://docs.microsoft.com/en-us/azure/azure-monitor/platform/manage-access

QUESTION 2

You are testing an Azure Kubernetes Service (AKS) cluster. The cluster is configured as shown in the exhibit. (Click the **Exhibit** tab.)



Basics

Subscription	Azure Pass - Sponsorship
Resource group	RG1
Region	(US) East US
Kubernetes cluster name	AKScluster
Kubernetes version	1.12.8
DNS name prefix	AKScluster
Node count	3
Node size	Standard_DS2_v2

Scale

Virtual nodes	Disabled
VM scale sets (preview)	Disabled

Authentication

Enable RBAC	No

Networking

HTTP application routing	No
Network configuration	Basic

Monitoring

Enable container monitoring	No

Tags

(none)

You plan to deploy the cluster to production. You disable HTTP application routing.

You need to implement application routing that will provide reverse proxy and TLS termination for AKS services by using a single IP address.

What should you do?

A. Create an AKS Ingress controller.
B. Install the container network interface (CNI) plug-in.
C. Create an Azure Standard Load Balancer.
D. Create an Azure Basic Load Balancer.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
An ingress controller is a piece of software that provides reverse proxy, configurable traffic routing, and TLS termination for Kubernetes services.

References: https://docs.microsoft.com/en-us/azure/aks/ingress-tls

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 use Azure Security Center for the centralized policy management of three Azure subscriptions.

You use several policy definitions to manage the security of the subscriptions.

You need to deploy the policy definitions as a group to all three subscriptions.

Solution: You create a policy definition and assignments that are scoped to resource groups.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference: References: https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/

QUESTION 4
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution 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 use Azure Security Center for the centralized policy management of three Azure subscriptions.

You use several policy definitions to manage the security of the subscriptions.

You need to deploy the policy definitions as a group to all three subscriptions.

Solution: You create a resource graph and an assignment that is scoped to a management group.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Management groups in Microsoft Azure solve the problem of needing to impose governance policy on more than one Azure subscription simultaneously. However, you need to use an initiative, not a resource graph to bundle the policy definitions into a group that can be applied to the management group.

References: https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/

QUESTION 5

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

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

You have an Azure subscription. The subscription contains 50 virtual machines that run Windows Server 2012 R2 or Windows Server 2016.

You need to deploy Microsoft Antimalware to the virtual machines.

Solution: You add an extension to each virtual machine.

Does this meet the goal?

A. Yes
B. No

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can use Visual Studio to enable and configure the Microsoft Antimalware service. This entails selecting Microsoft Antimalware extension from the dropdown list under Installed Extensions and click Add to configure with default antimalware configuration.

References: https://docs.microsoft.com/en-us/azure/security/fundamentals/antimalware

QUESTION 6
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You have an Azure subscription. The subscription contains 50 virtual machines that run Windows Server 2012 R2 or Windows Server 2016.

You need to deploy Microsoft Antimalware to the virtual machines.

Solution: You connect to each virtual machine and add a Windows feature.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Microsoft Antimalware is deployed as an extension and not a feature.

References: https://docs.microsoft.com/en-us/azure/security/fundamentals/antimalware

QUESTION 7
From Azure Security Center, you create a custom alert rule.

You need to configure which users will receive an email message when the alert is triggered.

What should you do?

A. From Azure Monitor, create an action group.
B. From Security Center, modify the Security policy settings of the Azure subscription.
C. From Azure Active Directory (Azure AD), modify the members of the Security Reader role group.
D. From Security Center, modify the alert rule.

Correct Answer: A
Section: (none)
Explanation

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

QUESTION 8
You are configuring and securing a network environment.

You deploy an Azure virtual machine named VM1 that is configured to analyze network traffic.

You need to ensure that all network traffic is routed through VM1.

What should you configure?

A. a system route
B. a network security group (NSG)
C. a user-defined route

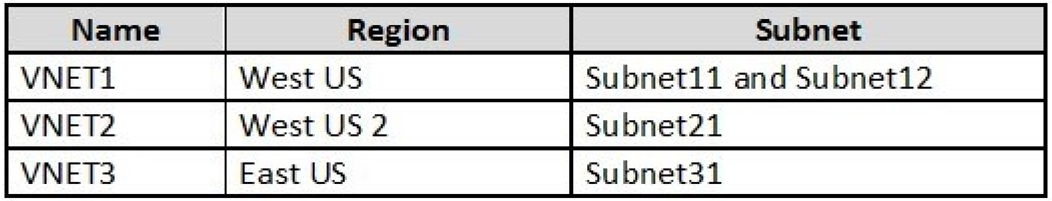
Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Although the use of system routes facilitates traffic automatically for your deployment, there are cases in which you want to control the routing of packets through a virtual appliance. You can do so by creating user defined routes that specify the next hop for packets flowing to a specific subnet to go to your virtual appliance instead, and enabling IP forwarding for the VM running as the virtual appliance.

Note: User Defined Routes
For most environments you will only need the system routes already defined by Azure. However, you may need to create a route table and add one or more routes in specific cases, such as:
- Force tunneling to the Internet via your on-premises network.
- Use of virtual appliances in your Azure environment.
- In the scenarios above, you will have to create a route table and add user defined routes to it.

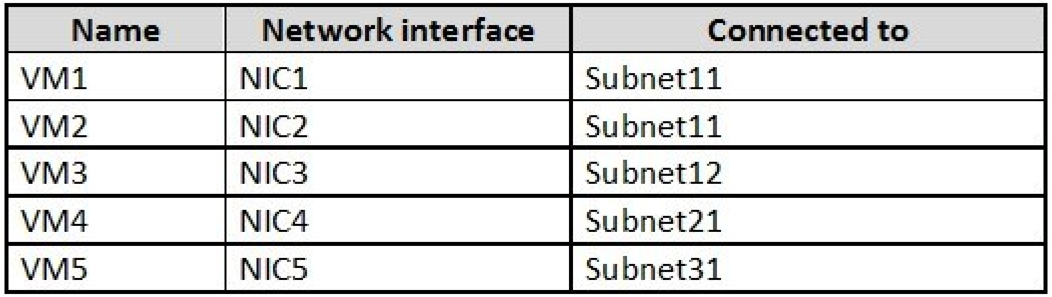
Reference: https://github.com/uglide/azure-content/blob/master/articles/virtual-network/virtual-networks-udr-overview.md

QUESTION 9
You have an Azure subscription that contains the virtual networks shown in the following table.



Name	Region	Subnet
VNET1	West US	Subnet11 and Subnet12
VNET2	West US 2	Subnet21
VNET3	East US	Subnet31

The subscription contains the virtual machines shown in the following table.



Name	Network interface	Connected to
VM1	NIC1	Subnet11
VM2	NIC2	Subnet11
VM3	NIC3	Subnet12
VM4	NIC4	Subnet21
VM5	NIC5	Subnet31

On NIC1, you configure an application security group named ASG1.

On which other network interfaces can you configure ASG1?

A. NIC2 only
B. NIC2, NIC3, NIC4, and NIC5
C. NIC2 and NIC3 only
D. NIC2, NIC3, and NIC4 only

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Only network interfaces in NVET1, which consists of Subnet11 and Subnet12, can be configured in ASG1, as all network interfaces assigned to an application security group have to exist in the same virtual network that the first network interface assigned to the application security group is in.

Reference:
https://azure.microsoft.com/es-es/blog/applicationsecuritygroups/

QUESTION 10
You have 15 Azure virtual machines in a resource group named RG1.

All the virtual machines run identical applications.

You need to prevent unauthorized applications and malware from running on the virtual machines.

What should you do?

A. Apply an Azure policy to RG1.
B. From Azure Security Center, configure adaptive application controls.
C. Configure Azure Active Directory (Azure AD) Identity Protection.
D. Apply a resource lock to RG1.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Adaptive application control is an intelligent, automated end-to-end application whitelisting solution from Azure Security Center. It helps you control which applications can run on your Azure and non-Azure VMs (Windows and Linux), which, among other benefits, helps harden your VMs against malware. Security Center uses machine learning to analyze the applications running on your VMs and helps you apply the specific whitelisting rules using this intelligence.

Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-adaptive-application

QUESTION 11
You plan to deploy Azure container instances.

You have a containerized application that validates credit cards. The application is comprised of two containers: an application container and a validation container.

The application container is monitored by the validation container. The validation container performs security checks by making requests to the application container and waiting for responses after every transaction.

You need to ensure that the application container and the validation container are scheduled to be deployed together. The containers must communicate to each other only on ports that are not externally exposed.

What should you include in the deployment?

A. application security groups
B. network security groups (NSGs)
C. management groups
D. container groups

Correct Answer: D
Section: (none)
Explanation
Explanation/Reference:
Explanation:
Azure Container Instances supports the deployment of multiple containers onto a single host using a container group. A container group is useful when building an application sidecar for logging, monitoring, or any other configuration where a service needs a second attached process.

Reference:
https://docs.microsoft.com/en-us/azure/container-instances/container-instances-container-groups

QUESTION 12
You are securing access to the resources in an Azure subscription.

A new company policy states that all the Azure virtual machines in the subscription must use managed disks.

You need to prevent users from creating virtual machines that use unmanaged disks.

What should you use?

A. Azure Monitor
B. Azure Policy
C. Azure Security Center
D. Azure Service Health

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
You have an Azure Kubernetes Service (AKS) cluster that will connect to an Azure Container Registry.

You need to use automatically generated service principal for the AKS cluster to authenticate to the Azure Container Registry.

What should you create?

A. a secret in Azure Key Vault
B. a role assignment
C. an Azure Active Directory (Azure AD) user

D. an Azure Active Directory (Azure AD) group

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
References: https://docs.microsoft.com/en-us/azure/aks/kubernetes-service-principal

QUESTION 14
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You use Azure Security Center for the centralized policy management of three Azure subscriptions.

You use several policy definitions to manage the security of the subscriptions.

You need to deploy the policy definitions as a group to all three subscriptions.

Solution: You create an initiative and an assignment that is scoped to a management group.

Does this meet the goal?

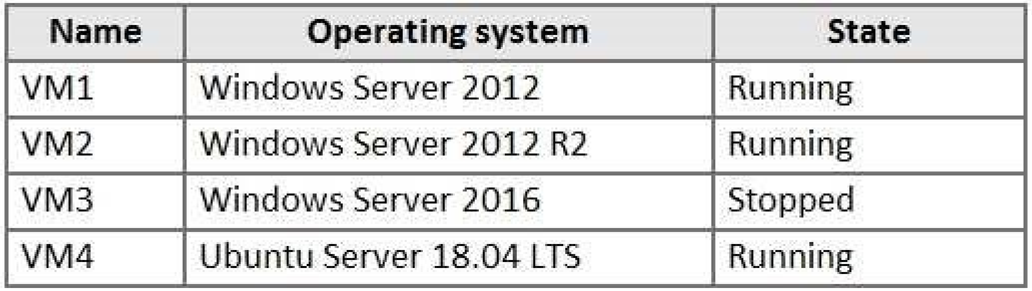
A. Yes
B. No

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
References: https://docs.microsoft.com/en-us/azure/governance/policy/overview

QUESTION 15

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



Name	Operating system	State
VM1	Windows Server 2012	Running
VM2	Windows Server 2012 R2	Running
VM3	Windows Server 2016	Stopped
VM4	Ubuntu Server 18.04 LTS	Running

For which virtual machine can you enable Update Management?

A. VM2 and VM3 only

B. VM2, VM3, and VM4 only

C. VM1, VM2, and VM4 only

D. VM1, VM2, VM3, and VM4

E. VM1, VM2, and VM3 only

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

References: https://docs.microsoft.com/en-us/azure/automation/automation-update-management?toc=%2Fazure%2Fautomation%2Ftoc.json

QUESTION 16

You have an Azure subscription that contains a user named User1 and an Azure Container Registry named ConReg1.

You enable content trust for ContReg1.

You need to ensure that User1 can create trusted images in ContReg1. The solution must use the principle of least privilege.

Which two roles should you assign to User1? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. AcrQuarantineReader
B. Contributor

C. AcrPush
D. AcrImageSigner
E. AcrQuarantineWriter

Correct Answer: CD
Section: (none)
Explanation

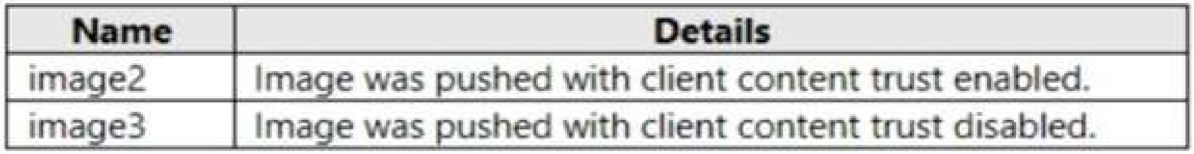
Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/container-registry/container-registry-content-trust

https://docs.microsoft.com/en-us/azure/container-registry/container-registry-roles

QUESTION 17
You have an Azure Container Registry named ContReg1 that contains a container image named image1.

You enable content trust for ContReg1.

After content trust is enabled, you push two images to ContReg1 as shown in the following table.



Name	Details
image2	Image was pushed with client content trust enabled.
image3	Image was pushed with client content trust disabled.

Which images are trusted images?

A. image1 and image2 only
B. image2 only
C. image1, image2, and image3

Correct Answer: B

Section: (none)
Explanation

Explanation/Reference:
Explanation:
Azure Container Registry implements Docker's content trust model, enabling pushing and pulling of signed images.

To push a trusted image tag to your container registry, enable content trust and push the image with docker push.

To work with trusted images, both image publishers and consumers need to enable content trust for their Docker clients. As a publisher, you can sign the images you push to a content trust-enabled registry.

Reference:
https://docs.microsoft.com/en-us/azure/container-registry/container-registry-content-trust

QUESTION 18
Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

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

You use Azure Security Center for the centralized policy management of three Azure subscriptions.

You use several policy definitions to manage the security of the subscriptions.

You need to deploy the policy definitions as a group to all three subscriptions.

Solution: You create a policy initiative and assignments that are scoped to resource groups.

Does this meet the goal?

A. Yes
B. No

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

Instead use a management group.

Management groups in Microsoft Azure solve the problem of needing to impose governance policy on more than one Azure subscription simultaneously.

Reference: https://4sysops.com/archives/apply-governance-policy-to-multiple-azure-subscriptions-with-management-groups/ **QUESTION 19**

You have Azure Resource Manager templates that you use to deploy Azure virtual machines.

You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.

What should you use?

A. device configuration policies in Microsoft Intune
B. Azure Automation State Configuration
C. security policies in Azure Security Center
D. device compliance policies in Microsoft Intune

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can use Azure Automation State Configuration to manage Azure VMs (both Classic and Resource Manager), on-premises VMs, Linux machines, AWS VMs, and on-premises physical machines.

Note: Azure Automation State Configuration provides a DSC pull server similar to the Windows Feature DSC-Service so that target nodes automatically receive configurations, conform to the desired state, and report back on their compliance. The built-in pull server in Azure Automation eliminates the need to set up and maintain your own pull server. Azure Automation can target virtual or physical Windows or Linux machines, in the cloud or on-premises.

Reference:
https://docs.microsoft.com/en-us/azure/automation/automation-dsc-getting-started

QUESTION 20

You have an Azure subscription named Sub1. Sub1 contains a virtual network named VNet1 that contains one subnet named Subnet1.

Subnet1 contains an Azure virtual machine named VM1 that runs Ubuntu Server 18.04.

You create a service endpoint for MicrosoftStorage in Subnet1.

You need to ensure that when you deploy Docker containers to VM1, the containers can access Azure Storage resources by using the service endpoint.

What should you do on VM1 before you deploy the container?

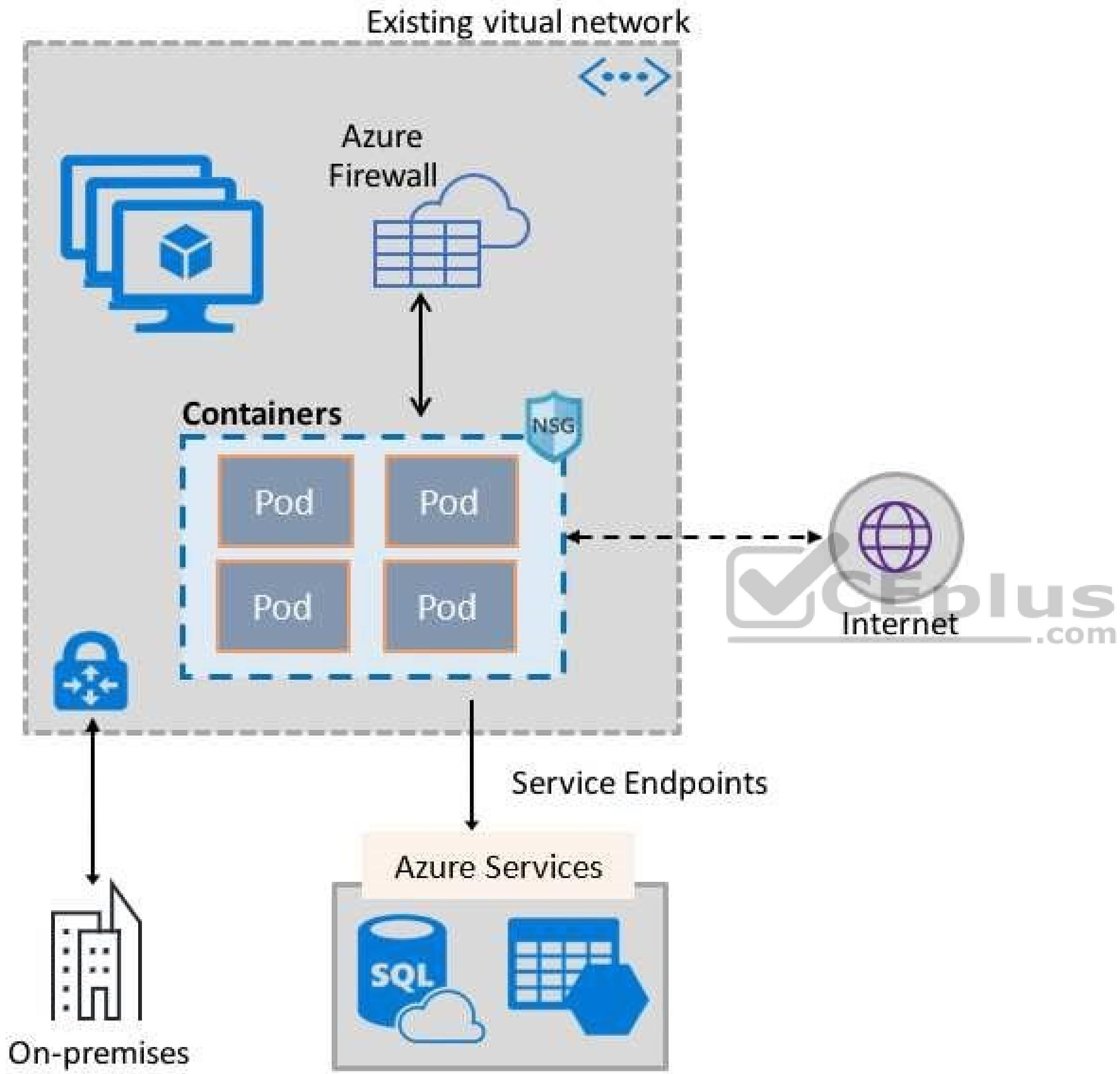
A. Create an application security group and a network security group (NSG).

B. Edit the docker-compose.yml file.

C. Install the container network interface (CNI) plug-in.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The Azure Virtual Network container network interface (CNI) plug-in installs in an Azure Virtual Machine. The plug-in supports both Linux and Windows platform. The plug-in assigns IP addresses from a virtual network to containers brought up in the virtual machine, attaching them to the virtual network, and connecting them directly to other containers and virtual network resources. The plug-in doesn’t rely on overlay networks, or routes, for connectivity, and provides the same performance as virtual machines.
The following picture shows how the plug-in provides Azure Virtual Network capabilities to Pods:



References:
https://docs.microsoft.com/en-us/azure/virtual-network/container-networking-overview **QUESTION 21**

You have Azure Resource Manager templates that you use to deploy Azure virtual machines.

You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.

What should you use?

A. device configuration policies in Microsoft Intune
B. an Azure Desired State Configuration (DSC) virtual machine extension
C. application security groups
D. device compliance policies in Microsoft Intune

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The primary use case for the Azure Desired State Configuration (DSC) extension is to bootstrap a VM to the Azure Automation State Configuration (DSC) service. The service provides benefits that include ongoing management of the VM configuration and integration with other operational tools, such as Azure Monitoring. Using the extension to register VM's to the service provides a flexible solution that even works across Azure subscriptions.

Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-overview

QUESTION 22
You are configuring an Azure Kubernetes Service (AKS) cluster that will connect to an Azure Container Registry.

You need to use the auto-generated service principal to authenticate to the Azure Container Registry.

What should you create?

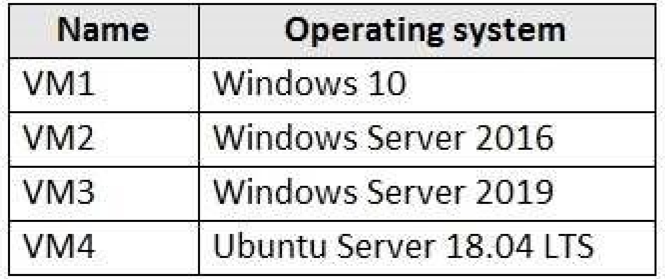
A. an Azure Active Directory (Azure AD) group
B. an Azure Active Directory (Azure AD) role assignment
C. an Azure Active Directory (Azure AD) user
D. a secret in Azure Key Vault

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When you create an AKS cluster, Azure also creates a service principal to support cluster operability with other Azure resources. You can use this auto-generated service principal for authentication with an ACR registry. To do so, you need to create an Azure AD role assignment that grants the cluster's service principal access to the container registry.

References: https://docs.microsoft.com/bs-latn-ba/azure/container-registry/container-registry-auth-aks

QUESTION 23
You have an Azure subscription that contains the Azure virtual machines shown in the following table.



Name	Operating system
VM1	Windows 10
VM2	Windows Server 2016
VM3	Windows Server 2019
VM4	Ubuntu Server 18.04 LTS

You create an MDM Security Baseline profile named Profile1.

You need to identify to which virtual machines Profile1 can be applied.

Which virtual machines should you identify?

A. VM1 only
B. VM1, VM2, and VM3 only
C. VM1 and VM3 only
D. VM1, VM2, VM3, and VM4

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference:

https://docs.microsoft.com/en-us/mem/intune/protect/security-baselines

QUESTION 24

You have Azure Resource Manager templates that you use to deploy Azure virtual machines.

You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.

What should you use?

A. device configuration policies in Microsoft Intune
B. an Azure Desired State Configuration (DSC) virtual machine extension
C. security policies in Azure Security Center
D. Azure Logic Apps

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:
The primary use case for the Azure Desired State Configuration (DSC) extension is to bootstrap a VM to the Azure Automation State Configuration (DSC) service. The service provides benefits that include ongoing management of the VM configuration and integration with other operational tools, such as Azure Monitoring. Using the extension to register VM's to the service provides a flexible solution that even works across Azure subscriptions.

Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-overview

QUESTION 25

You have an Azure virtual machine named VM1.

From Azure Security Center, you get the following high-severity recommendation: “Install endpoint protection solutions on virtual machine”.

You need to resolve the issue causing the high-severity recommendation.

What should you do?

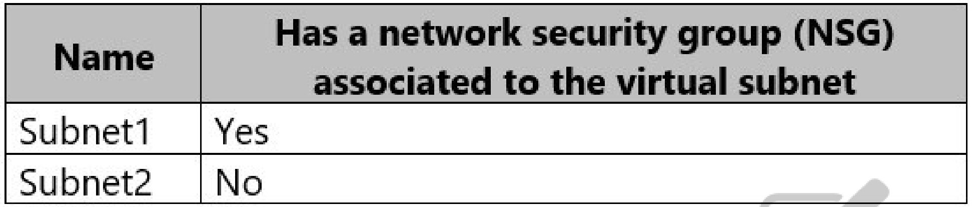
A. Add the Microsoft Antimalware extension to VM1.
B. Install Microsoft System Center Security Management Pack for Endpoint Protection on VM1.
C. Add the Network Watcher Agent for Windows extension to VM1.

D. Onboard VM1 to Microsoft Defender Advanced Threat Protection (Microsoft Defender ATP).

Correct Answer: A
Section: (none)
Explanation

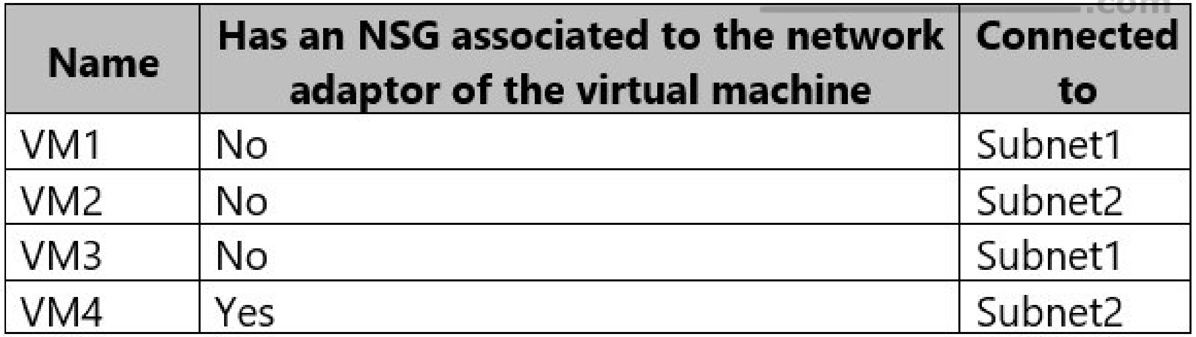
Explanation/Reference:
Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-endpoint-protection

QUESTION 26
You have an Azure subscription that contains a virtual network. The virtual network contains the subnets shown in the following table.



Name	Has a network security group (NSG) associated to the virtual subnet
Subnet1	Yes
Subnet2	No

The subscription contains the virtual machines shown in the following table.



Name	Has an NSG associated to the network adaptor of the virtual machine	Connected to
VM1	No	Subnet1
VM2	No	Subnet2
VM3	No	Subnet1
VM4	Yes	Subnet2

You enable just in time (JIT) VM access for all the virtual machines.

You need to identify which virtual machines are protected by JIT.

Which virtual machines should you identify?

A. VM4 only

B. VM1 and VM3 only
C. VM1, VM3 and VM4 only
D. VM1, VM2, VM3, and VM4

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
An NSG needs to be enabled, either at the VM level or the subnet level.

Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-just-in-time

Manage security operations

Testlet 1

Case Study

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

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

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

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

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

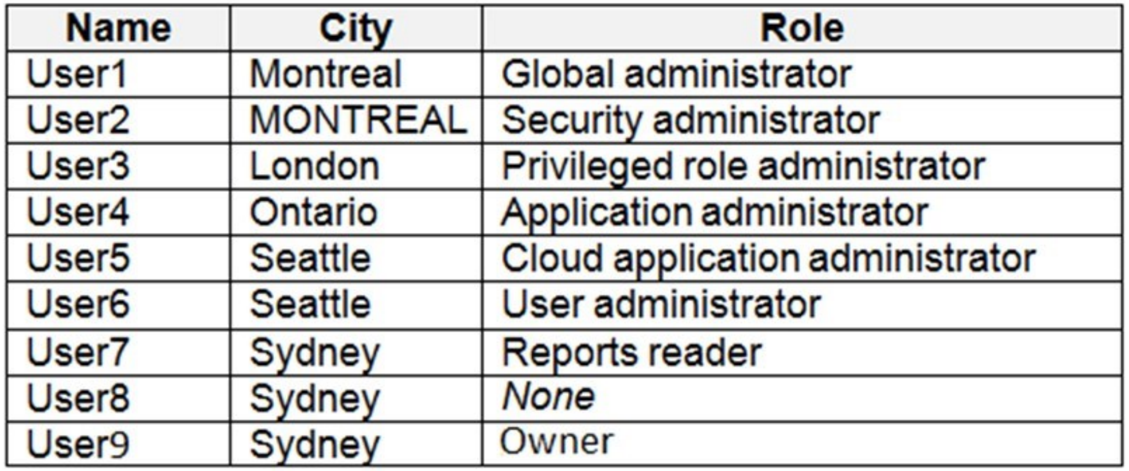
The company hosts its entire server infrastructure in Azure.

Contoso has two Azure subscriptions named Sub1 and Sub2. Both subscriptions are associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

Existing Environment

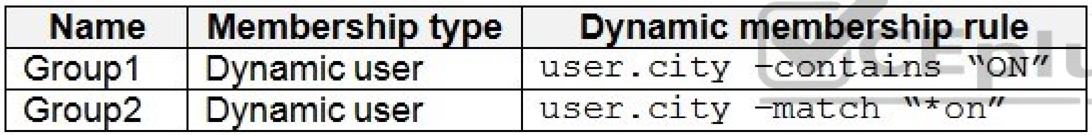
Azure AD

Contoso.com contains the users shown in the following table.



Name	City	Role
User1	Montreal	Global administrator
User2	MONTREAL	Security administrator
User3	London	Privileged role administrator
User4	Ontario	Application administrator
User5	Seattle	Cloud application administrator
User6	Seattle	User administrator
User7	Sydney	Reports reader
User8	Sydney	*None*
User9	Sydney	Owner

Contoso.com contains the security groups shown in the following table.

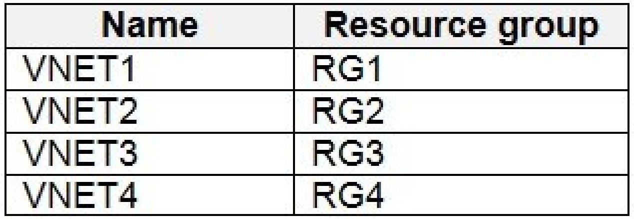


Name	Membership type	Dynamic membership rule
Group1	Dynamic user	`user.city –contains “ON”`
Group2	Dynamic user	`user.city –match “*on”`

Sub1

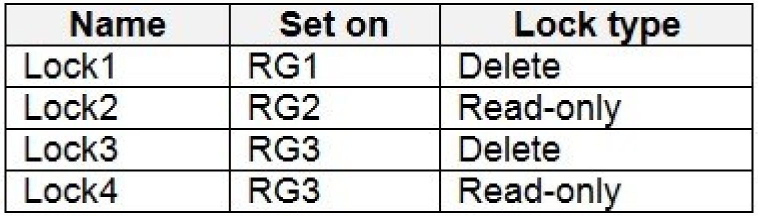
Sub1 contains six resource groups named RG1, RG2, RG3, RG4, RG5, and RG6.

User9 creates the virtual networks shown in the following table.



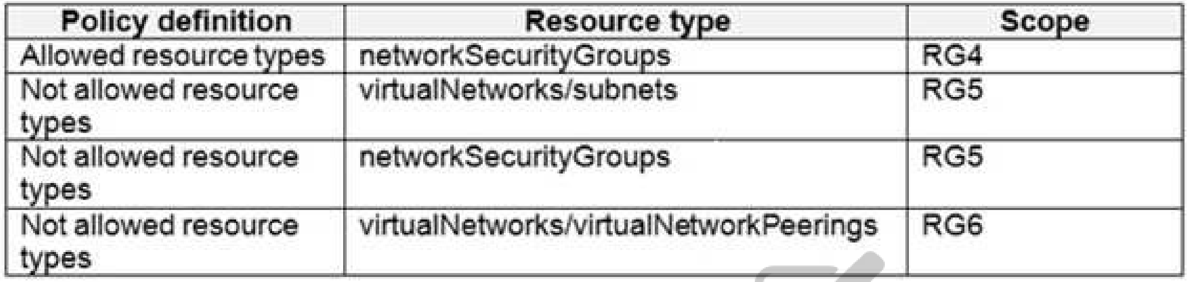
Name	Resource group
VNET1	RG1
VNET2	RG2
VNET3	RG3
VNET4	RG4

Sub1 contains the locks shown in the following table.



Name	Set on	Lock type
Lock1	RG1	Delete
Lock2	RG2	Read-only
Lock3	RG3	Delete
Lock4	RG3	Read-only

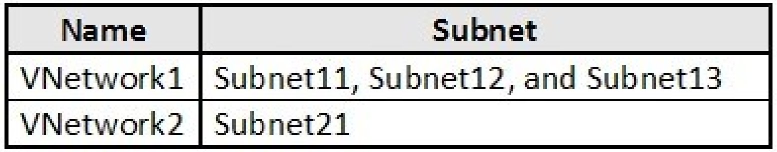
Sub1 contains the Azure policies shown in the following table.



Policy definition	Resource type	Scope
Allowed resource types	networkSecurityGroups	RG4
Not allowed resource types	virtualNetworks/subnets	RG5
Not allowed resource types	networkSecurityGroups	RG5
Not allowed resource types	virtualNetworks/virtualNetworkPeerings	RG6

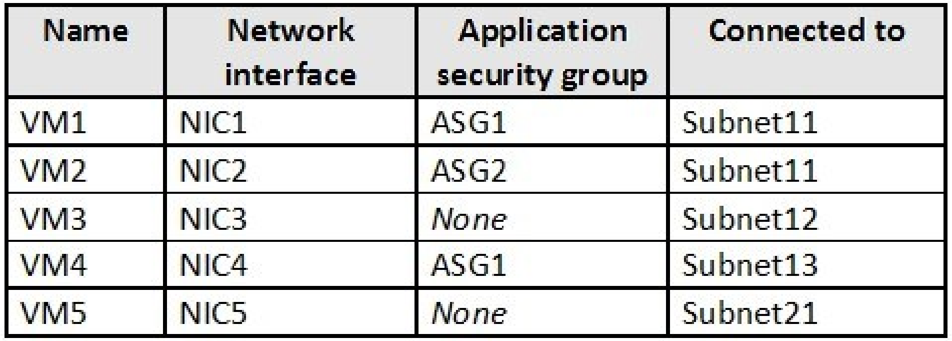
Sub2

Sub2 contains the virtual networks shown in the following table.



Name	Subnet
VNetwork1	Subnet11, Subnet12, and Subnet13
VNetwork2	Subnet21

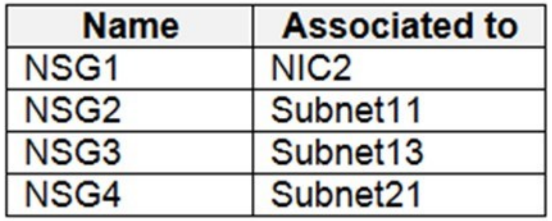
Sub2 contains the virtual machines shown in the following table.



Name	Network interface	Application security group	Connected to
VM1	NIC1	ASG1	Subnet11
VM2	NIC2	ASG2	Subnet11
VM3	NIC3	*None*	Subnet12
VM4	NIC4	ASG1	Subnet13
VM5	NIC5	*None*	Subnet21

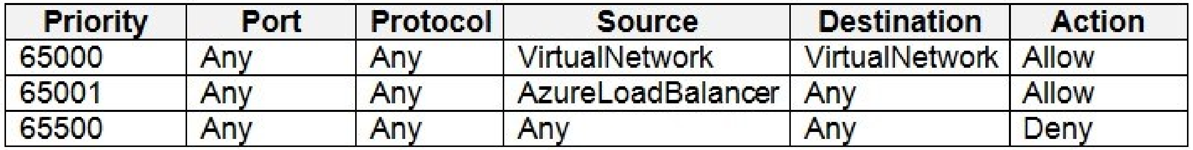
All virtual machines have public IP addresses and the Web Server (IIS) role installed. The firewalls for each virtual machine allow ping requests and web requests.

Sub2 contains the network security groups (NSGs) shown in the following table.



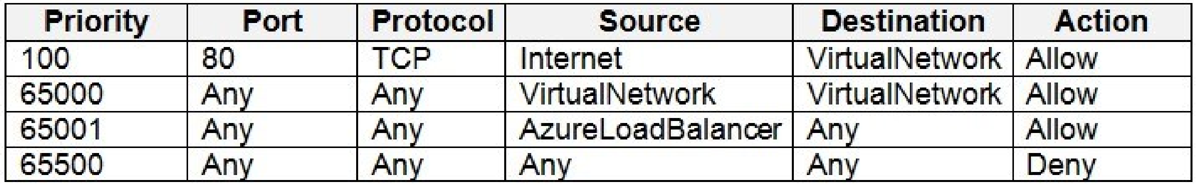
Name	Associated to
NSG1	NIC2
NSG2	Subnet11
NSG3	Subnet13
NSG4	Subnet21

NSG1 has the inbound security rules shown in the following table.



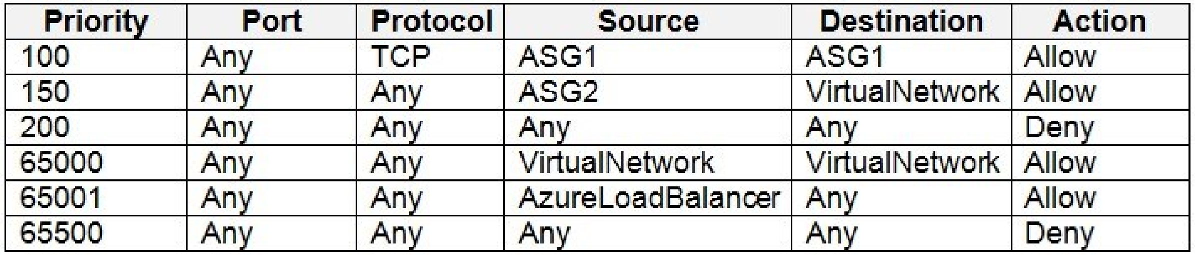
Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG2 has the inbound security rules shown in the following table.



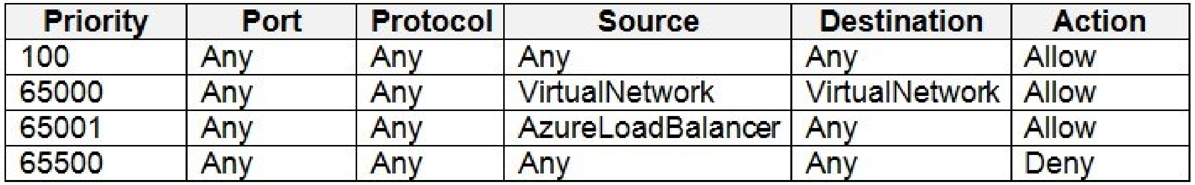
Priority	Port	Protocol	Source	Destination	Action
100	80	TCP	Internet	VirtualNetwork	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG3 has the inbound security rules shown in the following table.



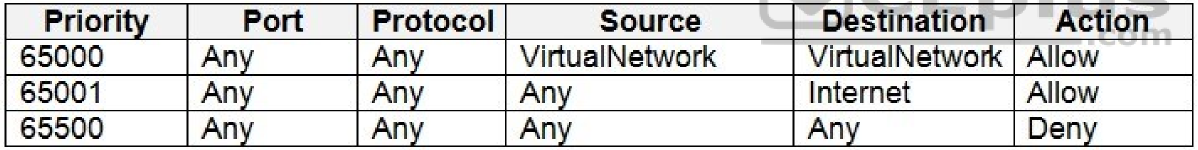
Priority	Port	Protocol	Source	Destination	Action
100	Any	TCP	ASG1	ASG1	Allow
150	Any	Any	ASG2	VirtualNetwork	Allow
200	Any	Any	Any	Any	Deny
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG4 has the inbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
100	Any	Any	Any	Any	Allow
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	AzureLoadBalancer	Any	Allow
65500	Any	Any	Any	Any	Deny

NSG1, NSG2, NSG3, and NSG4 have the outbound security rules shown in the following table.



Priority	Port	Protocol	Source	Destination	Action
65000	Any	Any	VirtualNetwork	VirtualNetwork	Allow
65001	Any	Any	Any	Internet	Allow
65500	Any	Any	Any	Any	Deny

Technical requirements

Contoso identifies the following technical requirements:

- Deploy Azure Firewall to VNetwork1 in Sub2.

- Register an application named App2 in contoso.com.
- Whenever possible, use the principle of least privilege.
- Enable Azure AD Privileged Identity Management (PIM) for contoso.com.

Manage security operations

Question Set 2

QUESTION 1
You have an Azure Storage account named storage1 that has a container named container1.

You need to prevent the blobs in container1 from being modified.

What should you do?

A. From container1, change the access level.
B. From container1, add an access policy.
C. From container1, modify the Access Control (IAM) settings.
D. From storage1, enable soft delete for blobs.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
References: https://docs.microsoft.com/en-us/azure/storage/blobs/storage-blob-immutable-storage?tabs=azure-portal

QUESTION 2
You company has an Azure Active Directory (Azure AD) tenant named contoso.com.

You plan to create several security alerts by using Azure Monitor.

You need to prepare the Azure subscription for the alerts.

What should you create first?

A. An Azure Storage account
B. an Azure Log Analytics workspace
C. an Azure event hub
D. an Azure Automation account

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3
You company has an Azure subscription named Sub1. Sub1 contains an Azure web app named WebApp1 that uses Azure Application Insights. WebApp1 requires users to authenticate by using OAuth 2.0 client secrets.

Developers at the company plan to create a multi-step web test app that preforms synthetic transactions emulating user traffic to Web App1.

You need to ensure that web tests can run unattended.

What should you do first?

A. In Microsoft Visual Studio, modify the .webtest file.
B. Upload the .webtest file to Application Insights.
C. Register the web test app in Azure AD.
D. Add a plug-in to the web test app.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 4
You are troubleshooting a security issue for an Azure Storage account.

You enable the diagnostic logs for the storage account.

What should you use to retrieve the diagnostics logs?

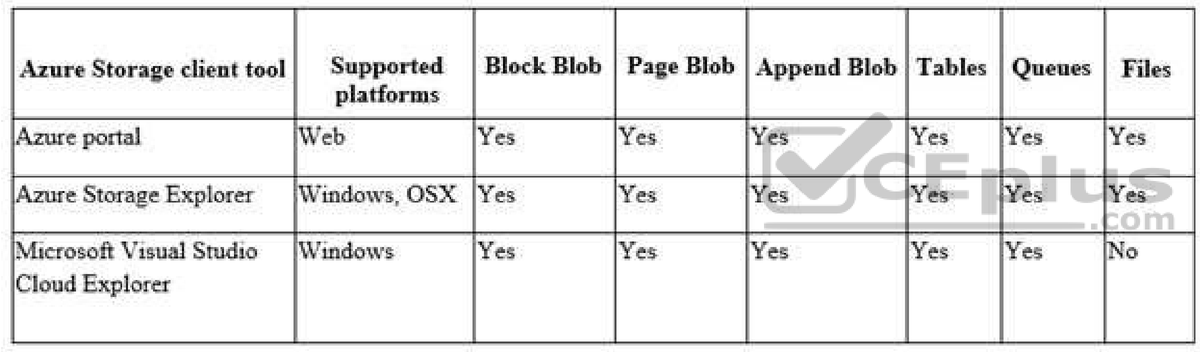
A. the Security & Compliance admin center
B. Azure Security Center
C. Azure Cosmos DB explorer

D. AzCopy

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
If you want to download the metrics for long-term storage or to analyze them locally, you must use a tool or write some code to read the tables. You must download the minute metrics for analysis. The tables do not appear if you list all the tables in your storage account, but you can access them directly by name. Many storagebrowsing tools are aware of these tables and enable you to view them directly (see Azure Storage Client Tools for a list of available tools).

Microsoft provides several graphical user interface (GUI) tools for working with the data in your Azure Storage account. All of the tools outlined in the following table are free.



Azure Storage client tool	Supported platforms	Block Blob	Page Blob	Append Blob	Tables	Queues	Files
Azure portal	Web	Yes	Yes	Yes	Yes	Yes	Yes
Azure Storage Explorer	Windows, OSX	Yes	Yes	Yes	Yes	Yes	Yes
Microsoft Visual Studio Cloud Explorer	Windows	Yes	Yes	Yes	Yes	Yes	No

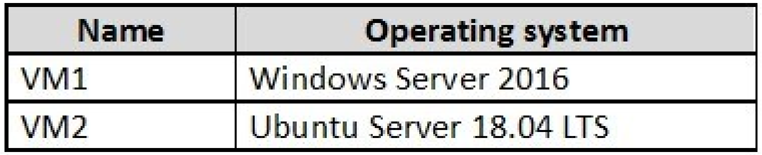
Note:
There are several versions of this question in the exam. The questions in the exam have two different correct answers:
1. Azure Storage Explorer
2. AZCopy

Other incorrect answer options you may see on the exam include the following:
1. SQL query editor in Azure
2. File Explorer in Windows
3. Azure Monitor

Reference: https://docs.microsoft.com/en-us/azure/storage/common/storage-analytics-metrics?toc=%2fazure%2fstorage%2fblobs%2ftoc.json https://docs.microsoft.com/en-us/azure/storage/common/storage-explorers

QUESTION 5

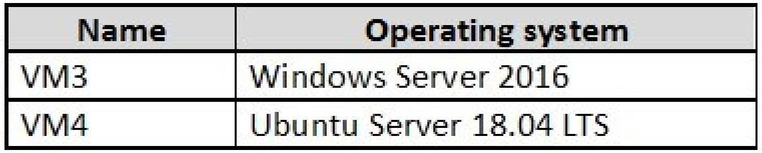
You have an Azure subscription that contains the virtual machines shown in the following table.



Name	Operating system
VM1	Windows Server 2016
VM2	Ubuntu Server 18.04 LTS

From Azure Security Center, you turn on Auto Provisioning.

You deploy the virtual machines shown in the following table.



Name	Operating system
VM3	Windows Server 2016
VM4	Ubuntu Server 18.04 LTS

On which virtual machines is the Microsoft Monitoring Agent installed?

A. VM3 only

B. VM1 and VM3 only

C. VM3 and VM4 only

D. VM1, VM2, VM3, and VM4

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When automatic provisioning is enabled, Security Center provisions the Microsoft Monitoring Agent on all supported Azure VMs and any new ones that are created.
Supported Operating systems include: Ubuntu 14.04 LTS (x86/x64), 16.04 LTS (x86/x64), and 18.04 LTS (x64) and Windows Server 2008 R2, 2012, 2012 R2, 2016, version 1709 and 1803.

Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-faq

QUESTION 6

You have 10 virtual machines on a single subnet that has a single network security group (NSG).

You need to log the network traffic to an Azure Storage account.

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

NOTE: Each correct selection is worth one point.

A. Install the Network Performance Monitor solution.
B. Enable Azure Network Watcher.
C. Enable diagnostic logging for the NSG.
D. Enable NSG flow logs.
E. Create an Azure Log Analytics workspace.

Correct Answer: BD
Section: (none)
Explanation

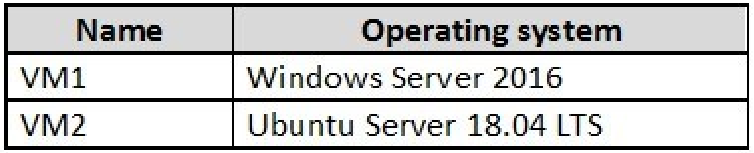
Explanation/Reference:

Explanation:
A network security group (NSG) enables you to filter inbound traffic to, and outbound traffic from, a virtual machine (VM). You can log network traffic that flows through an NSG with Network Watcher's NSG flow log capability. Steps include:
- Create a VM with a network security group
- Enable Network Watcher and register the Microsoft.Insights provider
- Enable a traffic flow log for an NSG, using Network Watcher's NSG flow log capability
- Download logged data ▪
View logged data

Reference: https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-portal

QUESTION 7

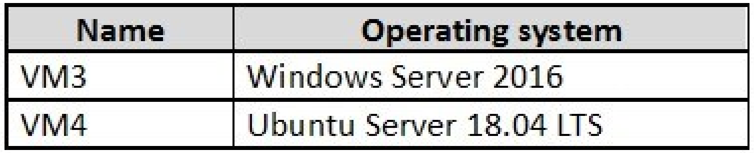
You have an Azure subscription that contains the virtual machines shown in the following table.



Name	Operating system
VM1	Windows Server 2016
VM2	Ubuntu Server 18.04 LTS

From Azure Security Center, you turn on Auto Provisioning.

You deploy the virtual machines shown in the following table.



Name	Operating system
VM3	Windows Server 2016
VM4	Ubuntu Server 18.04 LTS

On which virtual machines is the Log Analytics Agent installed?

A. VM3 only
B. VM1 and VM3 only
C. VM3 and VM4 only
D. VM1, VM2, VM3, and VM4

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
When automatic provisioning is On, Security Center provisions the Log Analytics Agent on all supported Azure VMs and any new ones that are created.

Supported Operating systems include: Ubuntu 14.04 LTS (x86/x64), 16.04 LTS (x86/x64), and 18.04 LTS (x64) and Windows Server 2008 R2, 2012, 2012 R2, 2016, version 1709 and 1803

Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-enable-data-collection

QUESTION 8

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You are assigned the Global administrator role for the tenant. You are responsible for managing Azure Security Center settings.

You need to create a custom sensitivity label.

What should you do?

A. Create a custom sensitive information type.

B. Elevate access for global administrators in Azure AD.
C. Change Azure Security Center to use Standard-tier pricing.
D. Enable integration with Microsoft Cloud App Security.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
First, you need to create a new sensitive information type because you can't directly modify the default rules.

References: https://docs.microsoft.com/en-us/office365/securitycompliance/customize-a-built-in-sensitive-information-type

QUESTION 9
You have an Azure subscription named Sub1.

In Azure Security Center, you have a security playbook named Play1. Play1 is configured to send an email message to a user named User1.

You need to modify Play1 to send email messages to a distribution group named Alerts.

What should you use to modify Play1?

A. Azure DevOps
B. Azure Application Insights
C. Azure Monitor
D. Azure Logic Apps Designer

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
You can change an existing playbook in Security Center to add an action, or conditions. To do that you just need to click on the name of the playbook that you want to change, in the Playbooks tab, and Logic App Designer opens up.

References:
https://docs.microsoft.com/en-us/azure/security-center/security-center-playbooks

QUESTION 10
You create a new Azure subscription.

You need to ensure that you can create custom alert rules in Azure Security Center.

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

NOTE: Each correct selection is worth one point.

A. Onboard Azure Active Directory (Azure AD) Identity Protection.
B. Create an Azure Storage account.
C. Implement Azure Advisor recommendations.
D. Create an Azure Log Analytics workspace.
E. Upgrade the pricing tier of Security Center to Standard.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:
Explanation:
D: You need write permission in the workspace that you select to store your custom alert.

References: https://docs.microsoft.com/en-us/azure/security-center/security-center-custom-alert

QUESTION 11

You have an Azure subscription named Sub1 that contains an Azure Log Analytics workspace named LAW1.

You have 100 on-premises servers that run Windows Server 2012 R2 and Windows Server 2016. The servers connect to LAW1. LAW1 is configured to collect security-related performance counters from the connected servers.

You need to configure alerts based on the data collected by LAW1. The solution must meet the following requirements:

- Alert rules must support dimensions.
- The time it takes to generate an alert must be minimized.
- Alert notifications must be generated only once when the alert is generated and once when the alert is resolved.

Which signal type should you use when you create the alert rules?

A. Log
B. Log (Saved Query)
C. Metric
D. Activity Log

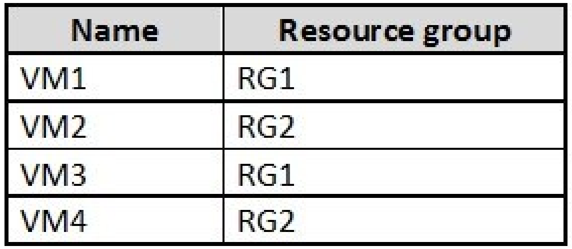
Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Metric alerts in Azure Monitor provide a way to get notified when one of your metrics cross a threshold. Metric alerts work on a range of multi-dimensional platform metrics, custom metrics, Application Insights standard and custom metrics.

Note: Signals are emitted by the target resource and can be of several types. Metric, Activity log, Application Insights, and Log.

References: https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-metric

QUESTION 12
You have an Azure subscription named Sub1 that contains the virtual machines shown in the following table.



Name	Resource group
VM1	RG1
VM2	RG2
VM3	RG1
VM4	RG2

You need to ensure that the virtual machines in RG1 have the Remote Desktop port closed until an authorized user requests access.

What should you configure?

A. Azure Active Directory (Azure AD) Privileged Identity Management (PIM)
B. an application security group
C. Azure Active Directory (Azure AD) conditional access
D. just in time (JIT) VM access

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Just-in-time (JIT) virtual machine (VM) access can be used to lock down inbound traffic to your Azure VMs, reducing exposure to attacks while providing easy access to connect to VMs when needed.

Note: When just-in-time is enabled, Security Center locks down inbound traffic to your Azure VMs by creating an NSG rule. You select the ports on the VM to which inbound traffic will be locked down. These ports are controlled by the just-in-time solution.

When a user requests access to a VM, Security Center checks that the user has Role-Based Access Control (RBAC) permissions that permit them to successfully request access to a VM. If the request is approved, Security Center automatically configures the Network Security Groups (NSGs) and Azure Firewall to allow inbound traffic to the selected ports and requested source IP addresses or ranges, for the amount of time that was specified. After the time has expired, Security Center restores the NSGs to their previous states. Those connections that are already established are not being interrupted, however.

Reference:
https://docs.microsoft.com/en-us/azure/security-center/security-center-just-in-time

QUESTION 13

You are troubleshooting a security issue for an Azure Storage account.

You enable the diagnostic logs for the storage account.

What should you use to retrieve the diagnostics logs?

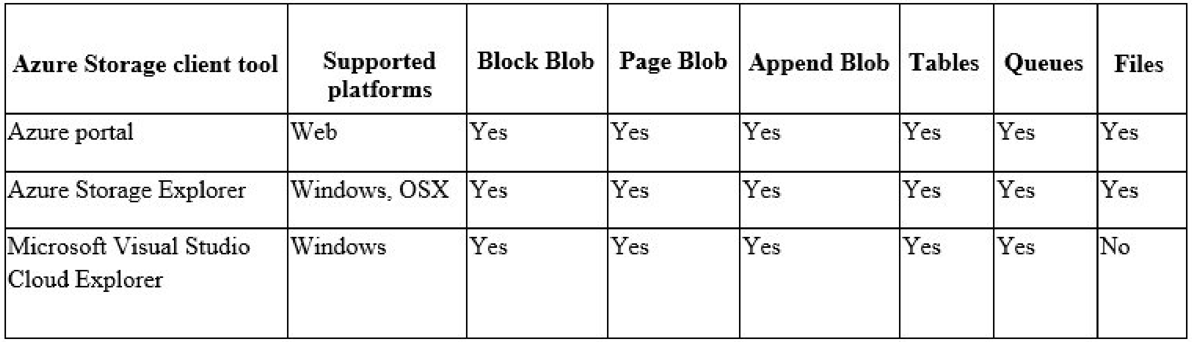
A. Azure Storage Explorer
B. SQL query editor in Azure
C. File Explorer in Windows
D. Azure Security Center

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

Explanation:
If you want to download the metrics for long-term storage or to analyze them locally, you must use a tool or write some code to read the tables. You must download the minute metrics for analysis. The tables do not appear if you list all the tables in your storage account, but you can access them directly by name. Many storagebrowsing tools are aware of these tables and enable you to view them directly (see Azure Storage Client Tools for a list of available tools).

Microsoft provides several graphical user interface (GUI) tools for working with the data in your Azure Storage account. All of the tools outlined in the following table are free.



Azure Storage client tool	Supported platforms	Block Blob	Page Blob	Append Blob	Tables	Queues	Files
Azure portal	Web	Yes	Yes	Yes	Yes	Yes	Yes
Azure Storage Explorer	Windows, OSX	Yes	Yes	Yes	Yes	Yes	Yes
Microsoft Visual Studio Cloud Explorer	Windows	Yes	Yes	Yes	Yes	Yes	No

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

1. Azure Storage Explorer

2. AZCopy

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

1. Azure Monitor
2. The Security & Compliance admin center
3. Azure Cosmos DB explorer
4. Azure Monitor

Reference: https://docs.microsoft.com/en-us/azure/storage/common/storage-analytics-metrics?toc=%2fazure%2fstorage%2fblobs%2ftoc.json https://docs.microsoft.com/en-us/azure/storage/common/storage-explorers

QUESTION 14

DRAG DROP

You have an Azure subscription that contains 100 virtual machines. Azure Diagnostics is enabled on all the virtual machines.

You are planning the monitoring of Azure services in the subscription.

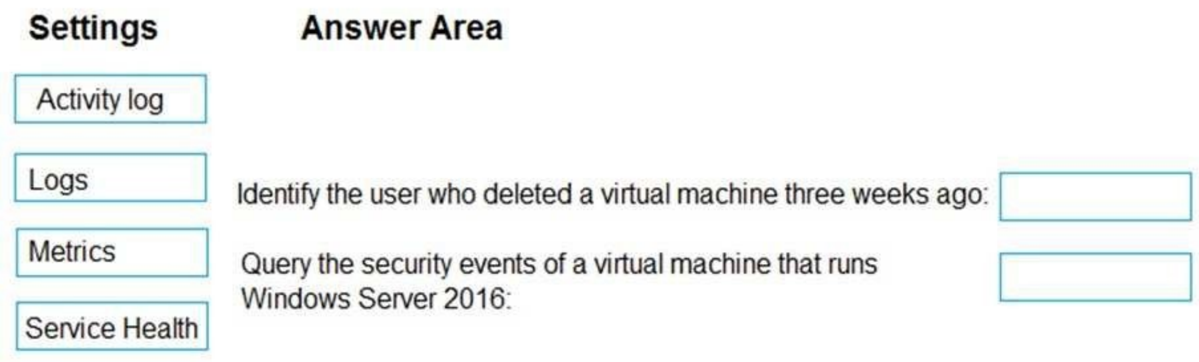
You need to retrieve the following details:

Identify the user who deleted a virtual machine three weeks ago.
Query the security events of a virtual machine that runs Windows Server 2016.

What should you use in Azure Monitor? To answer, drag the appropriate configuration settings to the correct details. Each configuration setting may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.

NOTE: Each correct selection is worth one point.

Select and Place:



Settings

Activity log

Logs

Metrics

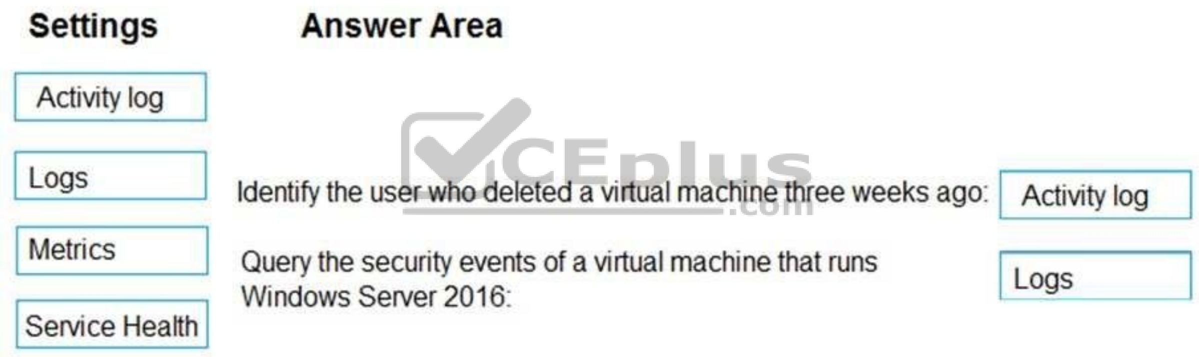
Service Health

Answer Area

Identify the user who deleted a virtual machine three weeks ago:

Query the security events of a virtual machine that runs Windows Server 2016:

Correct Answer:



Settings

Activity log

Logs

Metrics

Service Health

Answer Area

Identify the user who deleted a virtual machine three weeks ago: Activity log

Query the security events of a virtual machine that runs Windows Server 2016: Logs

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

Box1: Activity log
Azure activity logs provide insight into the operations that were performed on resources in your subscription. Activity logs were previously known as “audit logs” or “operational logs,” because they report control-plane events for your subscriptions.

Activity logs help you determine the “what, who, and when” for write operations (that is, PUT, POST, or DELETE).

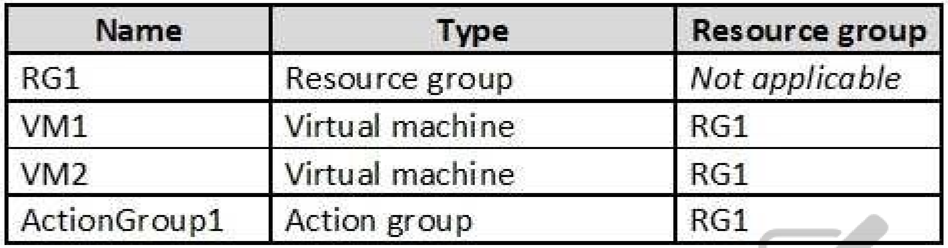
Box 2: Logs

Log Integration collects Azure diagnostics from your Windows virtual machines, Azure activity logs, Azure Security Center alerts, and Azure resource provider logs. This integration provides a unified dashboard for all your assets, whether they're on-premises or in the cloud, so that you can aggregate, correlate, analyze, and alert for security events.

References: https://docs.microsoft.com/en-us/azure/security/azure-log-audit

QUESTION 15
HOTSPOT

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



Name	Type	Resource group
RG1	Resource group	*Not applicable*
VM1	Virtual machine	RG1
VM2	Virtual machine	RG1
ActionGroup1	Action group	RG1

VM1 and VM2 are stopped.

You create an alert rule that has the following settings:

Resource: RG1
Condition: All Administrative operations
Actions: Action groups configured for this alert rule: ActionGroup1
Alert rule name: Alert1

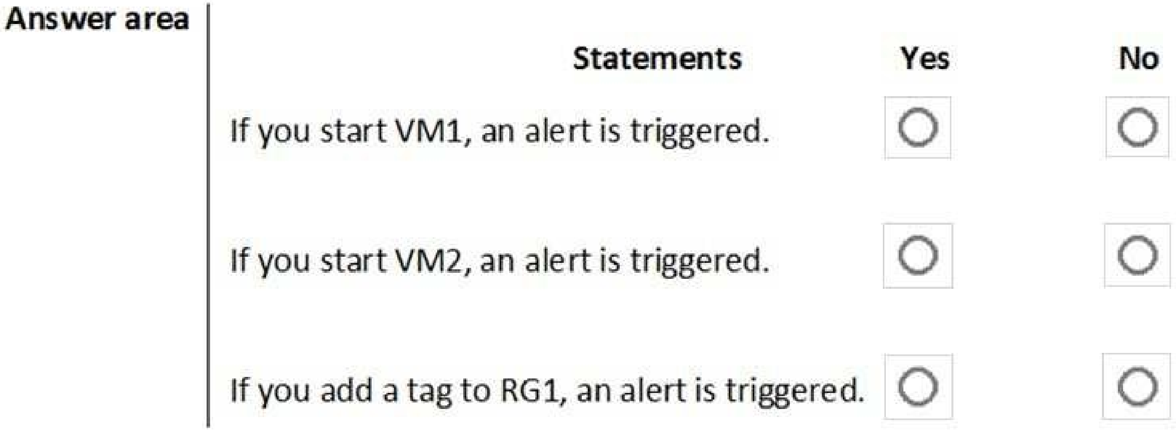
You create an action rule that has the following settings:

Scope: VM1
Filter criteria: Resource Type = "Virtual Machines"
Define on this scope: Suppression
Suppression config: From now (always)
Name: ActionRule1

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

Note: Each correct selection is worth one point.

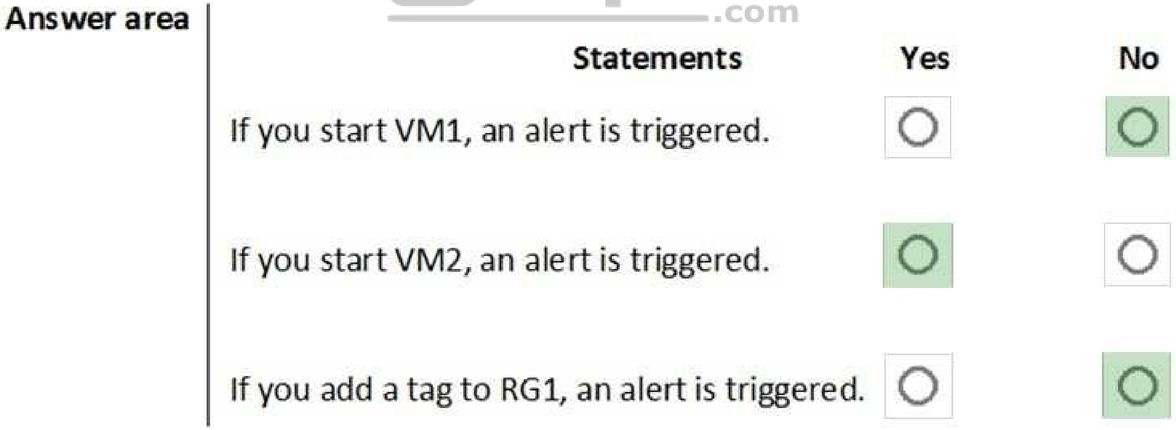
Hot Area:



Answer area

Statements	Yes	No
If you start VM1, an alert is triggered.	○	○
If you start VM2, an alert is triggered.	○	○
If you add a tag to RG1, an alert is triggered.	○	○

Correct Answer:



Answer area

Statements	Yes	No
If you start VM1, an alert is triggered.	○	[✓ ○]
If you start VM2, an alert is triggered.	[✓ ○]	○
If you add a tag to RG1, an alert is triggered.	○	[✓ ○]

Section: (none)
Explanation

Explanation/Reference:
Explanation:

Box 1:
The scope for the action rule is set to VM1 and is set to suppress alerts indefinitely.

Box 2:
The scope for the action rule is not set to VM2.

Box 3:
Adding a tag is not an administrative operation.

References: https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-activity-log https://docs.microsoft.com/en-us/azure/azure-monitor/platform/alerts-action-rules

QUESTION 16
DRAG DROP

You have an Azure subscription named Sub1 that contains an Azure Log Analytics workspace named LAW1.

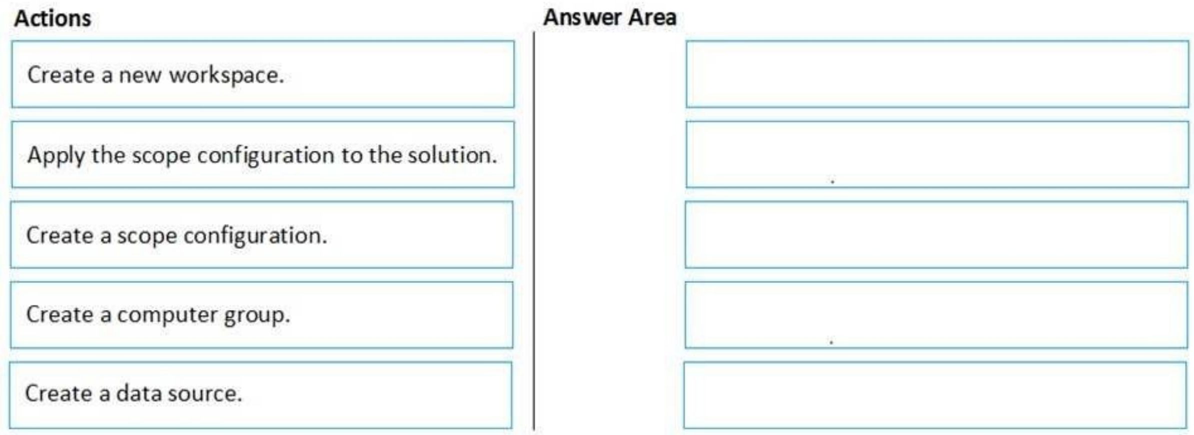
You have 500 Azure virtual machines that run Windows Server 2016 and are enrolled in LAW1.

You plan to add the System Update Assessment solution to LAW1.

You need to ensure that System Update Assessment-related logs are uploaded to LAW1 from 100 of the virtual machines only.

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

Select and Place:



Actions

Create a new workspace.

Apply the scope configuration to the solution.

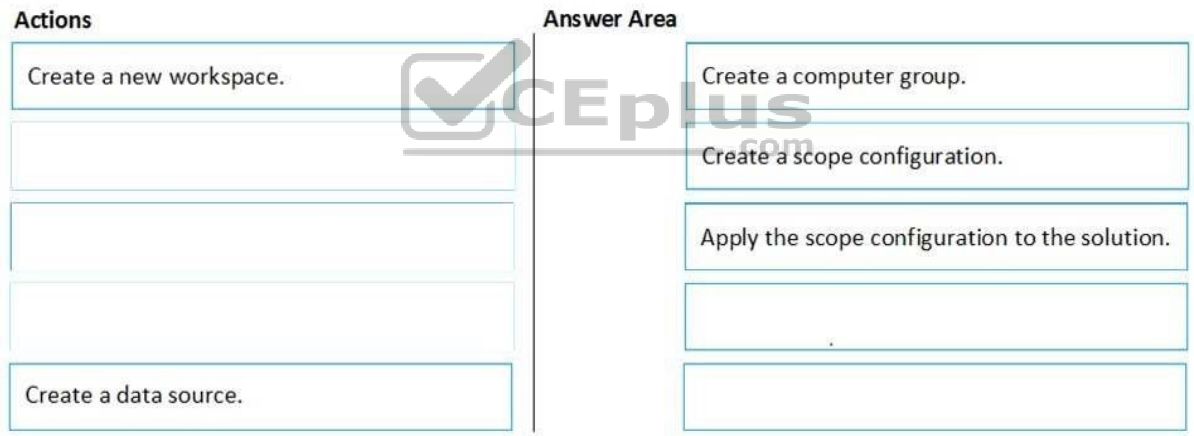
Create a scope configuration.

Create a computer group.

Create a data source.

Answer Area

Correct Answer:



Actions

Create a new workspace.

Create a data source.

Answer Area

Create a computer group.

Create a scope configuration.

Apply the scope configuration to the solution.

Section: (none)
Explanation

Explanation/Reference:

Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/insights/solution-targeting

Secure data and applications

Testlet 1

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**

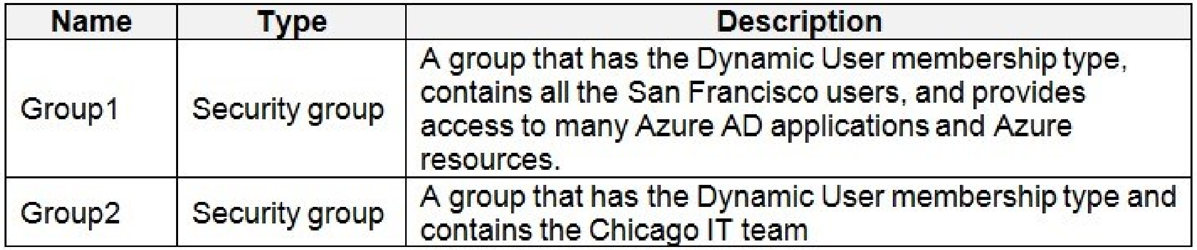
Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

Existing Environment

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

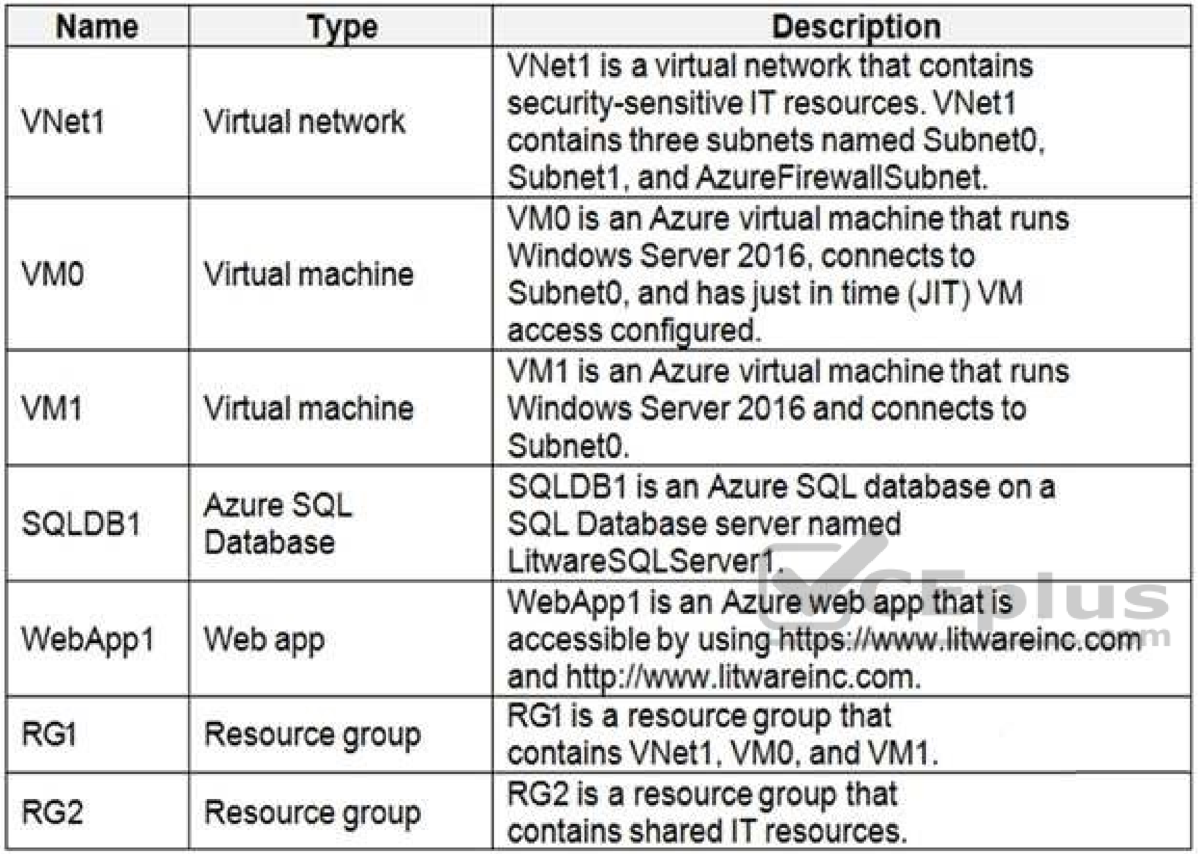
Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



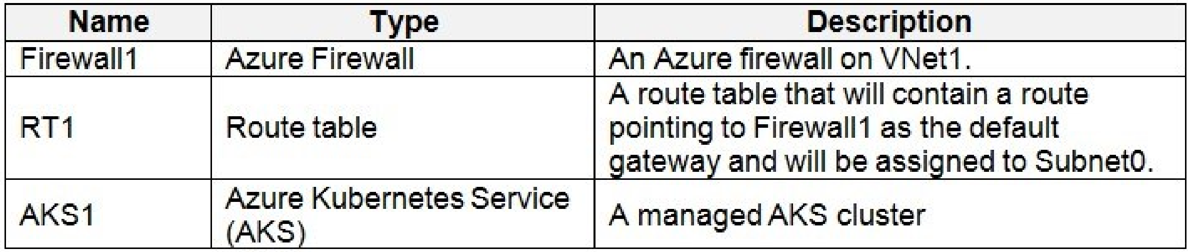
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subnet0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://www.litwareinc.com and http://www.litwareinc.com.
RG1	Resource group	RG1 is a resource group that contains VNet1, VM0, and VM1.
RG2	Resource group	RG2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Standard tier.

Requirements

Planned Changes

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

- All San Francisco users and their devices must be members of Group1.
- The members of Group2 must be assigned the Contributor role to RG2 by using a permanent eligible assignment.
- Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

-
- Microsoft Antimalware must be installed on the virtual machines in RG1.
- The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.
- Azure AD users must be able to authenticate to AKS1 by using their Azure AD credentials.
- Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.
- A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in RG1. Role1 must be available only for RG1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

- The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials. ▪
WebApp1 must enforce mutual authentication.

General Requirements

Litware identifies the following general requirements:

▪ Whenever possible, administrative effort must be minimized.▪
Whenever possible, use of automation must be maximized.

QUESTION 1

You need to configure WebApp1 to meet the data and application requirements.

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

NOTE: Each correct selection is worth one point.

A. Upload a public certificate.
B. Turn on the HTTPS Only protocol setting.
C. Set the Minimum TLS Version protocol setting to 1.2.
D. Change the pricing tier of the App Service plan.
E. Turn on the Incoming client certificates protocol setting.

Correct Answer: AC
Section: (none)
Explanation

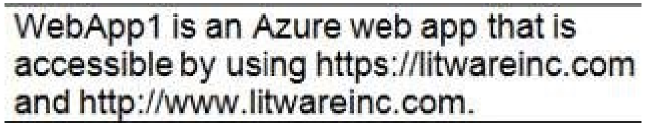
Explanation/Reference:

Explanation:
A: To configure Certificates for use in Azure Websites Applications you need to upload a public Certificate.

C: Over time, multiple versions of TLS have been released to mitigate different vulnerabilities. TLS 1.2 is the most current version available for apps running on Azure App Service.

Incorrect Answers:
B: We need support the http url as well.

Note:



WebApp1 is an Azure web app that is accessible by using https://litwareinc.com and http://www.litwareinc.com.

References: https://docs.microsoft.com/en-us/azure/app-service/app-service-web-configure-tls-mutual-auth
https://azure.microsoft.com/en-us/updates/app-service-and-functions-hosted-apps-can-now-update-tls-versions/

Secure data and applications

Question Set 2

QUESTION 1
You have an Azure web app named webapp1.

You need to configure continuous deployment for webapp1 by using an Azure Repo.

What should you create first?

A. an Azure Application Insights service
B. an Azure DevOps organization
C. an Azure Storage account
D. an Azure DevTest Labs lab

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
To use Azure Repos, make sure your Azure DevOps organization is linked to your Azure subscription.

Reference: https://docs.microsoft.com/en-us/azure/app-service/deploy-continuous-deployment

QUESTION 2
Your company has an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

The company develops an application named App1. App1 is registered in Azure AD.

You need to ensure that App1 can access secrets in Azure Key Vault on behalf of the application users.

What should you configure?

A. an application permission without admin consent
B. a delegated permission without admin consent
C. a delegated permission that requires admin consent

D. an application permission that requires admin consent

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Delegated permissions - Your client application needs to access the web API as the signed-in user, but with access limited by the selected permission. This type of permission can be granted by a user unless the permission requires administrator consent.

Incorrect Answers:
A, D: Application permissions - Your client application needs to access the web API directly as itself (no user context). This type of permission requires administrator consent and is also not available for public (desktop and mobile) client applications.

References: https://docs.microsoft.com/en-us/azure/active-directory/develop/quickstart-configure-app-access-web-apis

QUESTION 3
Your company has an Azure subscription named Sub1 that is associated to an Azure Active Directory Azure (Azure AD) tenant named contoso.com.

The company develops a mobile application named App1. App1 uses the OAuth 2 implicit grant type to acquire Azure AD access tokens.

You need to register App1 in Azure AD.

What information should you obtain from the developer to register the application?

A. a redirect URI
B. a reply URL
C. a key
D. an application ID

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
For Native Applications you need to provide a Redirect URI, which Azure AD will use to return token responses.

References:
https://docs.microsoft.com/en-us/azure/active-directory/develop/v1-protocols-oauth-code

QUESTION 4

From the Azure portal, you are configuring an Azure policy.

You plan to assign policies that use the `DeployIfNotExist`, `AuditIfNotExist`, `Append`, and `Deny` effects.

Which effect requires a managed identity for the assignment?

A. `AuditIfNotExist`

B. Append

C. `DeployIfNotExist`

D. Deny

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

Explanation:
When Azure Policy runs the template in the deployIfNotExists policy definition, it does so using a managed identity.

References: https://docs.microsoft.com/bs-latn-ba/azure/governance/policy/how-to/remediate-resources

QUESTION 5

You have an Azure subscription that contains an Azure key vault named Vault1.

In Vault1, you create a secret named Secret1.

An application developer registers an application in Azure Active Directory (Azure AD).

You need to ensure that the application can use Secret1.

What should you do?

A. In Azure AD, create a role.

B. In Azure Key Vault, create a key.

C. In Azure Key Vault, create an access policy.
D. In Azure AD, enable Azure AD Application Proxy.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Azure Key Vault provides a way to securely store credentials and other keys and secrets, but your code needs to authenticate to Key Vault to retrieve them. Managed identities for Azure resources overview makes solving this problem simpler, by giving Azure services an automatically managed identity in Azure Active Directory (Azure AD). You can use this identity to authenticate to any service that supports Azure AD authentication, including Key Vault, without having any credentials in your code.

Example: How a system-assigned managed identity works with an Azure VM
After the VM has an identity, use the service principal information to grant the VM access to Azure resources. To call Azure Resource Manager, use role-based access control (RBAC) in Azure AD to assign the appropriate role to the VM service principal. To call Key Vault, grant your code access to the specific secret or key in Key Vault.

References: https://docs.microsoft.com/en-us/azure/key-vault/quick-create-net

https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview

QUESTION 6
You have an Azure SQL database.

You implement Always Encrypted.

You need to ensure that application developers can retrieve and decrypt data in the database.

Which two pieces of information should you provide to the developers? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A. a stored access policy
B. a shared access signature (SAS)
C. the column encryption key
D. user credentials

E. the column master key

Correct Answer: CE
Section: (none)
Explanation
Explanation/Reference:
Explanation:
Always Encrypted uses two types of keys: column encryption keys and column master keys. A column encryption key is used to encrypt data in an encrypted column. A column master key is a key-protecting key that encrypts one or more column encryption keys.

References: https://docs.microsoft.com/en-us/sql/relational-databases/security/encryption/always-encrypted-database-engine

QUESTION 7
You have a hybrid configuration of Azure Active Directory (Azure AD).

All users have computers that run Windows 10 and are hybrid Azure AD joined.

You have an Azure SQL database that is configured to support Azure AD authentication.

Database developers must connect to the SQL database by using Microsoft SQL Server Management Studio (SSMS) and authenticate by using their on-premises Active Directory account.

You need to tell the developers which authentication method to use to connect to the SQL database from SSMS. The solution must minimize authentication prompts.

Which authentication method should you instruct the developers to use?

A. SQL Login
B. Active Directory – Universal with MFA support
C. Active Directory – Integrated
D. Active Directory – Password

Correct Answer: C
Section: (none)
Explanation

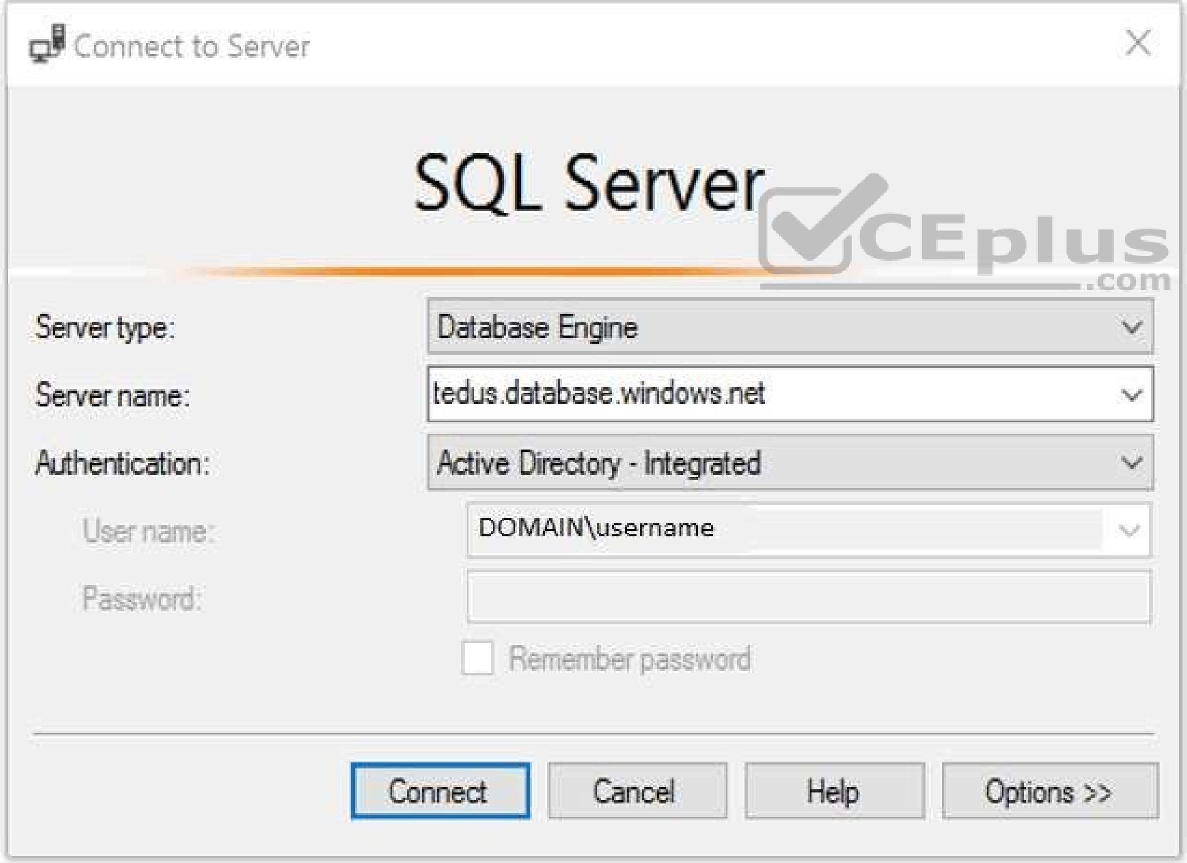
Explanation/Reference:
Explanation:

Azure AD can be the initial Azure AD managed domain. Azure AD can also be an on-premises Active Directory Domain Services that is federated with the Azure AD.

Using an Azure AD identity to connect using SSMS or SSDT
The following procedures show you how to connect to a SQL database with an Azure AD identity using SQL Server Management Studio or SQL Server Database Tools.

Active Directory integrated authentication
Use this method if you are logged in to Windows using your Azure Active Directory credentials from a federated domain.

1. Start Management Studio or Data Tools and in the Connect to Server (or Connect to Database Engine) dialog box, in the Authentication box, select Active Directory - Integrated. No password is needed or can be entered because your existing credentials will be presented for the connection.



Server type: Database Engine
Server name: tedus.database.windows.net
Authentication: Active Directory - Integrated
User name: DOMAIN\username
Password:
□ Remember password

2. Select the Options button, and on the Connection Properties page, in the Connect to database box, type the name of the user database you want to connect to. (The AD domain name or tenant ID" option is only supported for Universal with MFA connection options, otherwise it is greyed out.) References:

https://github.com/MicrosoftDocs/azure-docs/blob/master/articles/sql-database/sql-database-aad-authentication-configure.md

QUESTION 8

You have an Azure SQL Database server named SQL1.

You turn on Advanced Threat Protection for SQL1 to detect all threat detection types.

Which action will Advanced Threat Protection detect as a threat?

A. A user updates more than 50 percent of the records in a table.
B. A user attempts to sign in as `SELECT * FROM table1`.
C. A user is added to the db_owner database role.
D. A user deletes more than 100 records from the same table.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

Explanation:

Advanced Threat Protection can detect potential SQL injections: This alert is triggered when an active exploit happens against an identified application vulnerability to SQL injection. This means the attacker is trying to inject malicious SQL statements using the vulnerable application code or stored procedures.

References: https://docs.microsoft.com/en-us/azure/sql-database/sql-database-threat-detection-overview

QUESTION 9

Your company uses Azure DevOps.

You need to recommend a method to validate whether the code meets the company's quality standards and code review standards.

What should you recommend implementing in Azure DevOps?

A. branch folders
B. branch permissions

C. branch policies
D. branch locking

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Branch policies help teams protect their important branches of development. Policies enforce your team's code quality and change management standards.

References: https://docs.microsoft.com/en-us/azure/devops/repos/git/branch-policies?view=azure-devops&viewFallbackFrom=vsts

QUESTION 10
You have an Azure subscription that contains a virtual machine named VM1.

You create an Azure key vault that has the following configurations:

- Name: Vault5
- Region: West US
- Resource group: RG1

You need to use Vault5 to enable Azure Disk Encryption on VM1. The solution must support backing up VM1 by using Azure Backup.

Which key vault settings should you configure?

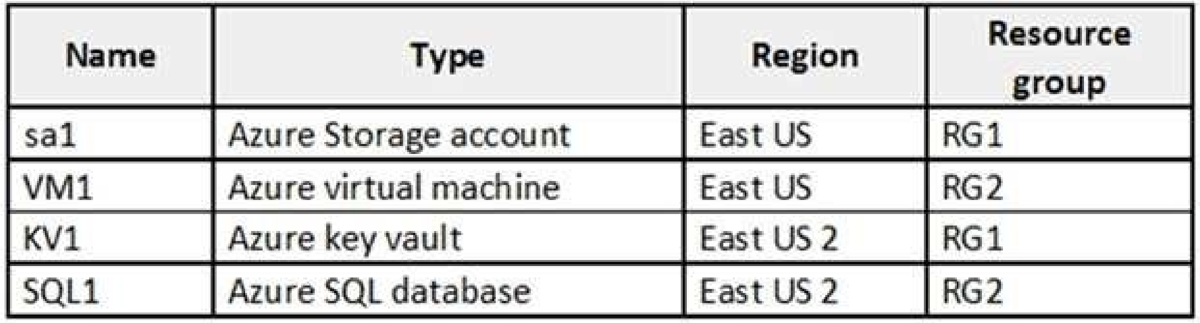
A. Access policies
B. Secrets
C. Keys
D. Locks

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
References: https://docs.microsoft.com/en-us/azure/key-vault/key-vault-secure-your-key-vault

QUESTION 11

You have an Azure subscription named Sub1 that contains the resources shown in the following table.



Name	Type	Region	Resource group
sa1	Azure Storage account	East US	RG1
VM1	Azure virtual machine	East US	RG2
KV1	Azure key vault	East US 2	RG1
SQL1	Azure SQL database	East US 2	RG2

You need to ensure that you can provide VM1 with secure access to a database on SQL1 by using a contained database user.

What should you do?

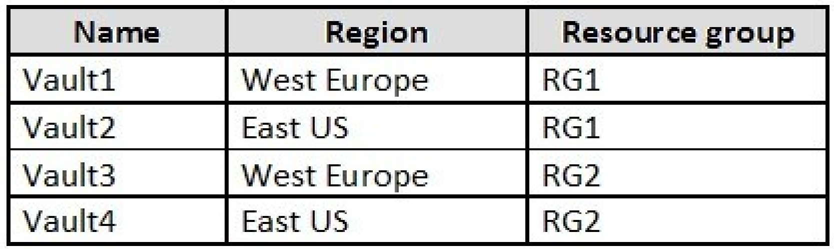
A. Enable a managed identity on VM1.
B. Create a secret in KV1.
C. Configure a service endpoint on SQL1.
D. Create a key in KV1.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12

You have an Azure subscription named Sub1 that contains the Azure key vaults shown in the following table:



Name	Region	Resource group
Vault1	West Europe	RG1
Vault2	East US	RG1
Vault3	West Europe	RG2
Vault4	East US	RG2

In Sub1, you create a virtual machine that has the following configurations:

- Name: VM1
- Size: DS2v2
- Resource group: RG1
- Region: West Europe
- Operating system: Windows Server 2016

You plan to enable Azure Disk Encryption on VM1.

In which key vaults can you store the encryption key for VM1?

A. Vault1 or Vault3 only

B. Vault1, Vault2, Vault3, or Vault4

C. Vault1 only

D. Vault1 or Vault2 only

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
In order to make sure the encryption secrets don’t cross regional boundaries, Azure Disk Encryption needs the Key Vault and the VMs to be co-located in the same region. Create and use a Key Vault that is in the same region as the VM to be encrypted.

Reference:
https://docs.microsoft.com/en-us/azure/security/azure-security-disk-encryption-prerequisites

QUESTION 13

You have a web app named WebApp1.

You create a web application firewall (WAF) policy named WAF1.

You need to protect WebApp1 by using WAF1.

What should you do first?

A. Deploy an Azure Front Door.
B. Add an extension to WebApp1.

C. Deploy Azure Firewall.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Reference: https://docs.microsoft.com/en-us/azure/frontdoor/quickstart-create-front-door

QUESTION 14
You have an Azure web app named WebApp1.

You upload a certificate to WebApp1.

You need to make the certificate accessible to the app code of WebApp1.

What should you do?

A. Add a user-assigned managed identity to WebApp1.
B. Add an app setting to the WebApp1 configuration.
C. Enable system-assigned managed identity for the WebApp1.
D. Configure the TLS/SSL binding for WebApp1.

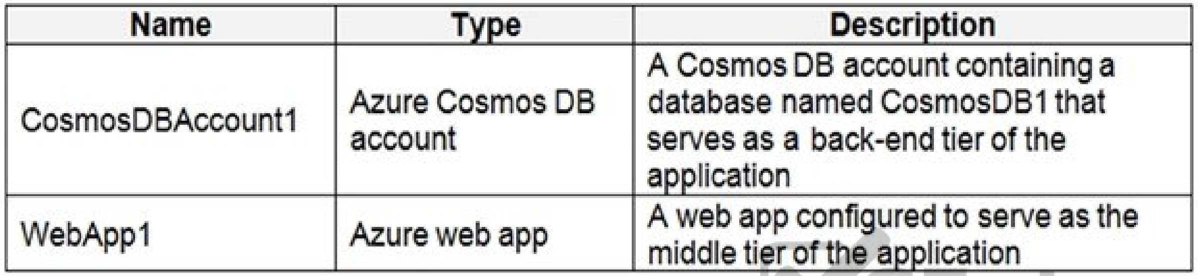
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Reference: https://docs.microsoft.com/en-us/azure/app-service/configure-ssl-certificate-in-code

QUESTION 15
HOTSPOT

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You plan to implement an application that will consist of the resources shown in the following table.



Name	Type	Description
CosmosDBAccount1	Azure Cosmos DB account	A Cosmos DB account containing a database named CosmosDB1 that serves as a back-end tier of the application
WebApp1	Azure web app	A web app configured to serve as the middle tier of the application

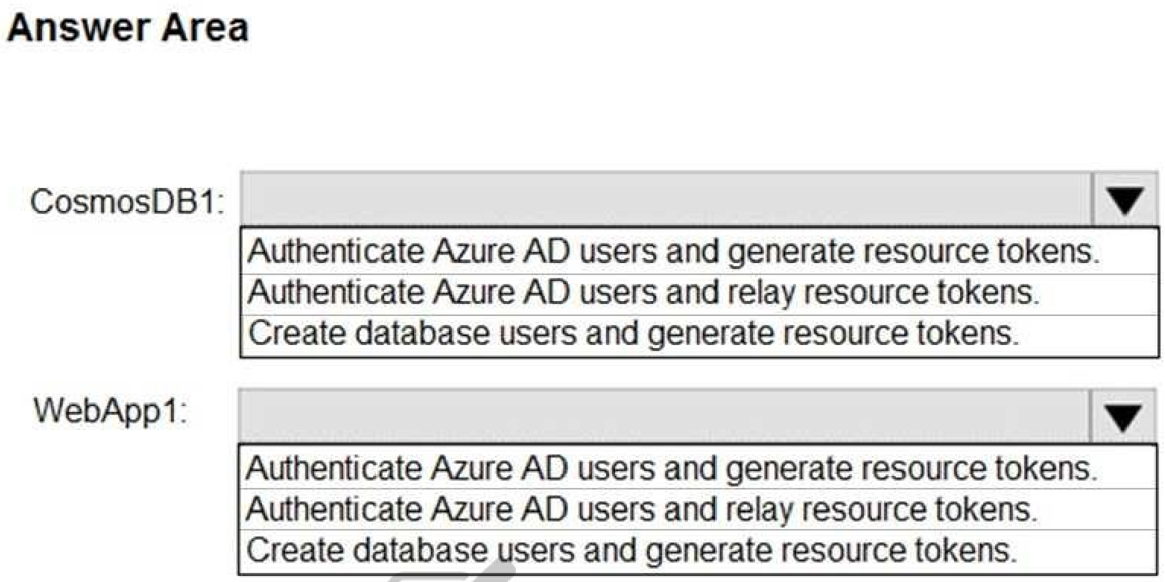
Users will authenticate by using their Azure AD user account and access the Cosmos DB account by using resource tokens.

You need to identify which tasks will be implemented in CosmosDB1 and WebApp1.

Which task should you identify for each resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

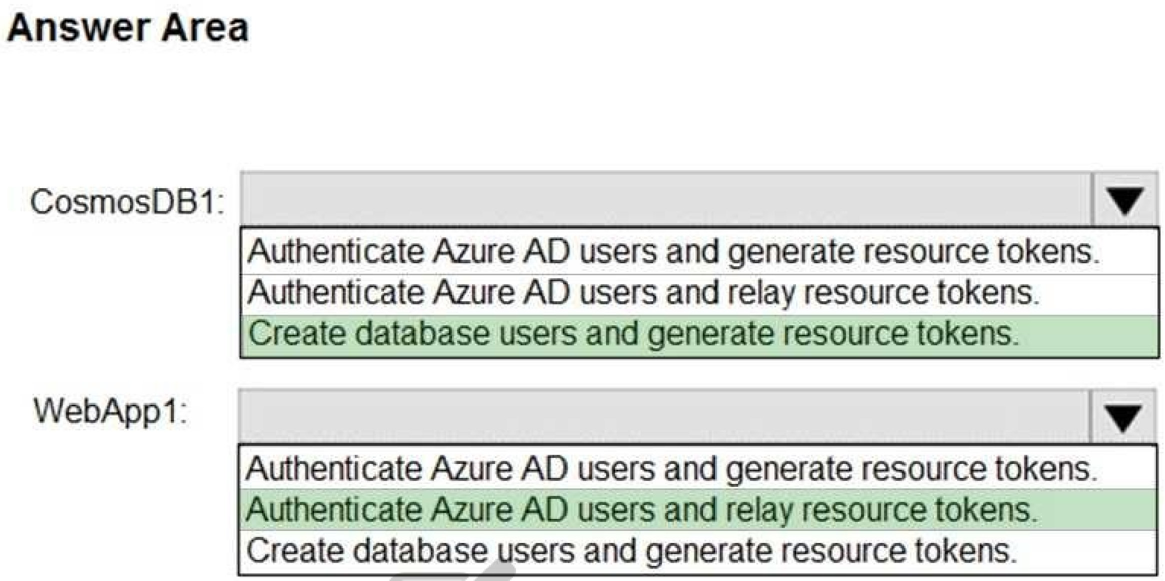
CosmosDB1:

- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- Create database users and generate resource tokens.

WebApp1:

- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- Create database users and generate resource tokens.

Correct Answer:



Answer Area

CosmosDB1:

- Authenticate Azure AD users and generate resource tokens.
- Authenticate Azure AD users and relay resource tokens.
- [✓ Create database users and generate resource tokens.]

WebApp1:

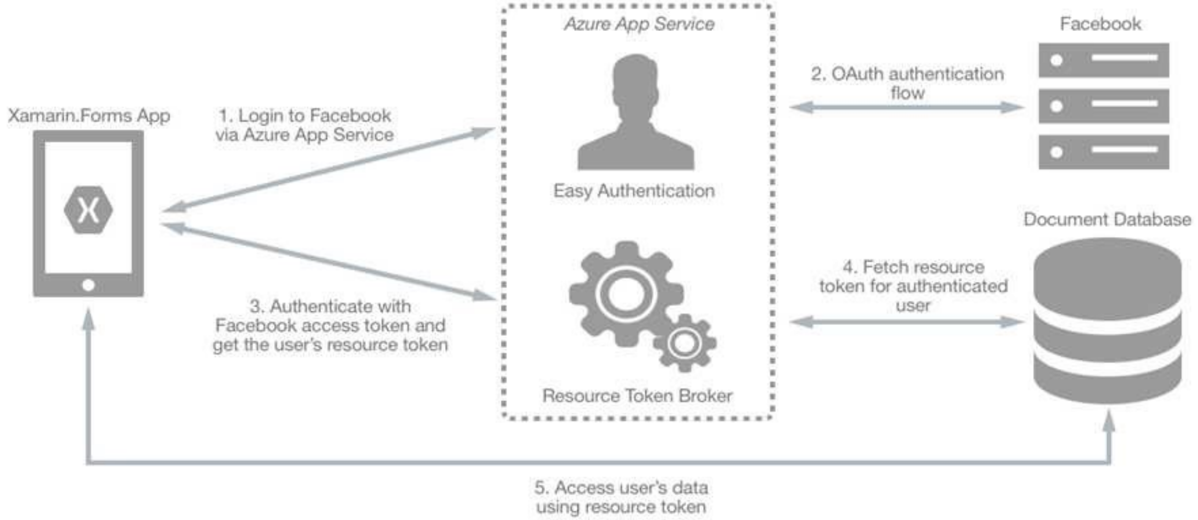
- Authenticate Azure AD users and generate resource tokens.
- [✓ Authenticate Azure AD users and relay resource tokens.]
- Create database users and generate resource tokens.

Section: (none)
Explanation

Explanation/Reference:
Explanation:

CosmosDB1: Create database users and generate resource tokens.
Azure Cosmos DB resource tokens provide a safe mechanism for allowing clients to read, write, and delete specific resources in an Azure Cosmos DB account according to the granted permissions.

WebApp1: Authenticate Azure AD users and relay resource tokens
A typical approach to requesting, generating, and delivering resource tokens to a mobile application is to use a resource token broker. The following diagram shows a high-level overview of how the sample application uses a resource token broker to manage access to the document database data:


Azure App Service
Easy Authentication
Resource Token Broker
Facebook
Document Database
Xamarin.Forms App
1. Login to Facebook via Azure App Service
2. OAuth authentication flow
3. Authenticate with Facebook access token and get the user's resource token
4. Fetch resource token for authenticated user
5. Access user's data using resource token

References: https://docs.microsoft.com/en-us/xamarin/xamarin-forms/data-cloud/cosmosdb/authentication

QUESTION 16
DRAG DROP

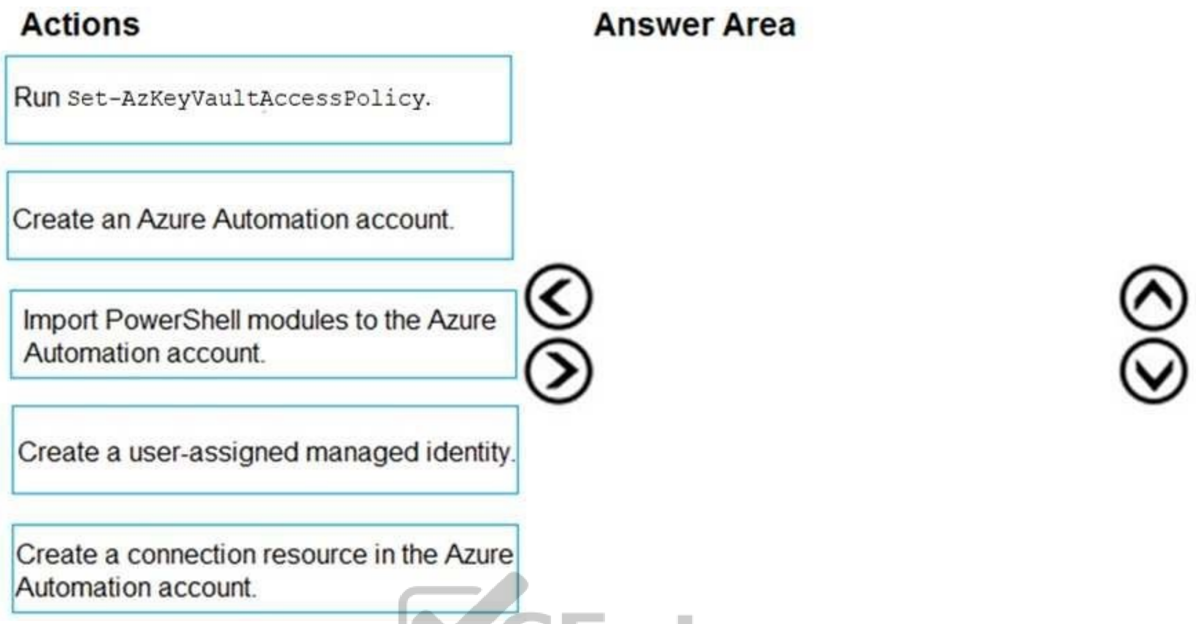
You have an Azure subscription named Sub1 that contains an Azure Storage account named contosostorage1 and an Azure key vault named Contosokeyvault1.

You plan to create an Azure Automation runbook that will rotate the keys of contosostorage1 and store them in Contosokeyvault1.

You need to implement prerequisites to ensure that you can implement the runbook.

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

Select and Place:



Actions

Answer Area

Run Set-AzKeyVaultAccessPolicy.

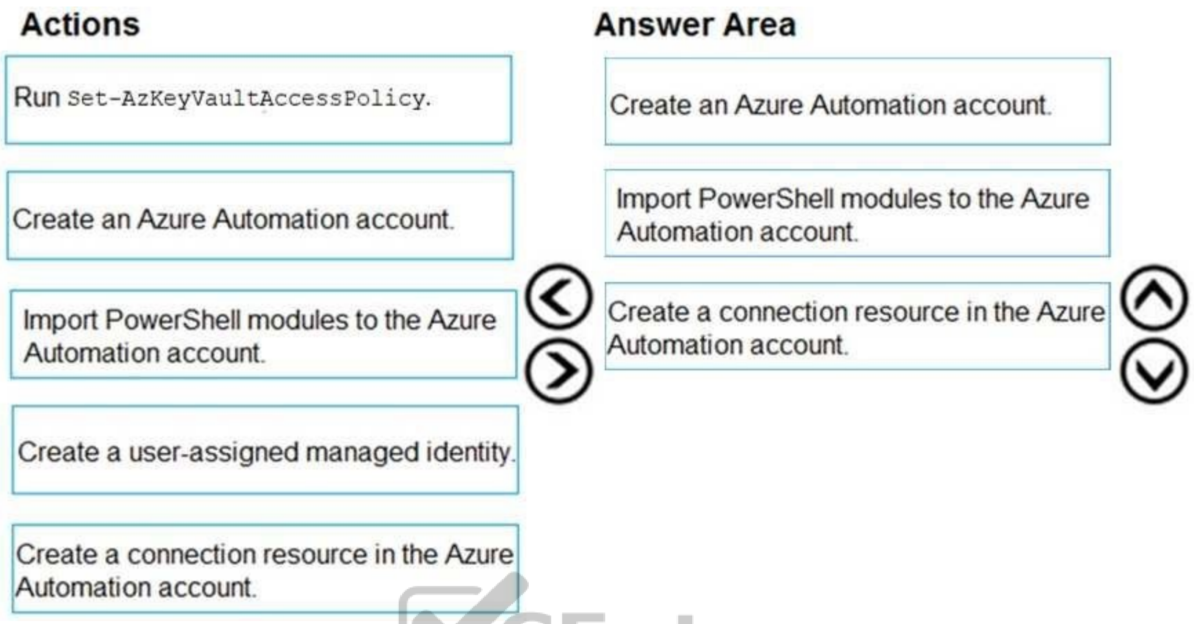
Create an Azure Automation account.

Import PowerShell modules to the Azure Automation account.

Create a user-assigned managed identity.

Create a connection resource in the Azure Automation account.

Correct Answer:



Actions

Run `Set-AzKeyVaultAccessPolicy`.

Create an Azure Automation account.

Import PowerShell modules to the Azure Automation account.

Create a user-assigned managed identity.

Create a connection resource in the Azure Automation account.

Answer Area

Create an Azure Automation account.

Import PowerShell modules to the Azure Automation account.

Create a connection resource in the Azure Automation account.

Section: (none)
Explanation

Explanation/Reference:
Explanation:

Step 1: Create an Azure Automation account
Runbooks live within the Azure Automation account and can execute PowerShell scripts.

Step 2: Import PowerShell modules to the Azure Automation account
Under ‘Assets’ from the Azure Automation account Resources section select ‘to add in Modules to the runbook. To execute key vault cmdlets in the runbook, we need to add AzureRM.profile and AzureRM.key vault.

Step 3: Create a connection resource in the Azure Automation account
You can use the sample code below, taken from the AzureAutomationTutorialScript example runbook, to authenticate using the Run As account to manage Resource Manager resources with your runbooks. The AzureRunAsConnection is a connection asset automatically created when we created ‘run as accounts’ above. This can be found under Assets -> Connections. After the authentication code, run the same code above to get all the keys from the vault.

```
$connectionName = "AzureRunAsConnection"
try

{
   # Get the connection "AzureRunAsConnection "
   $servicePrincipalConnection=Get-AutomationConnection -Name $connectionName

   "Logging in to Azure..."
   Add-AzureRmAccount `
      -ServicePrincipal `
      -TenantId $servicePrincipalConnection.TenantId `
      -ApplicationId $servicePrincipalConnection.ApplicationId `
      -CertificateThumbprint $servicePrincipalConnection.CertificateThumbprint
}
```

References: https://www.rahulpnath.com/blog/accessing-azure-key-vault-from-azure-runbook/

QUESTION 17

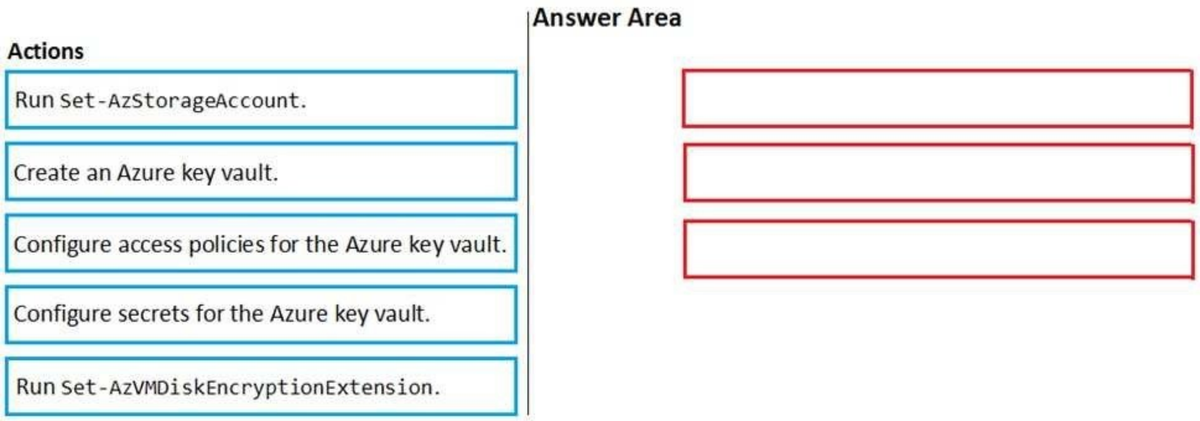
DRAG DROP

You have an Azure subscription named Sub1. Sub1 contains an Azure virtual machine named VM1 that runs Windows Server 2016.

You need to encrypt VM1 disks by using Azure Disk Encryption.

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

Select and Place:



Actions

Run `Set-AzStorageAccount`.

Create an Azure key vault.

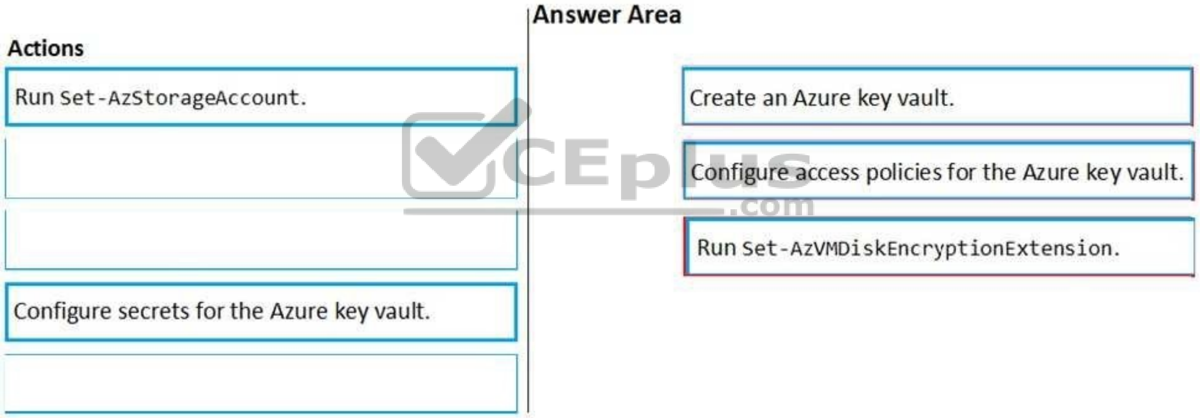
Configure access policies for the Azure key vault.

Configure secrets for the Azure key vault.

Run `Set-AzVMDiskEncryptionExtension`.

Answer Area

Correct Answer:



Actions

Run `Set-AzStorageAccount`.

Configure secrets for the Azure key vault.

Answer Area

Create an Azure key vault.

Configure access policies for the Azure key vault.

Run `Set-AzVMDiskEncryptionExtension`.

Section: (none)
Explanation

Explanation/Reference:
Reference:
https://docs.microsoft.com/en-us/azure/virtual-machines/windows/encrypt-disks

QUESTION 18
SIMULATION

You need to prevent HTTP connections to the rg1lod10598168n1 Azure Storage account.

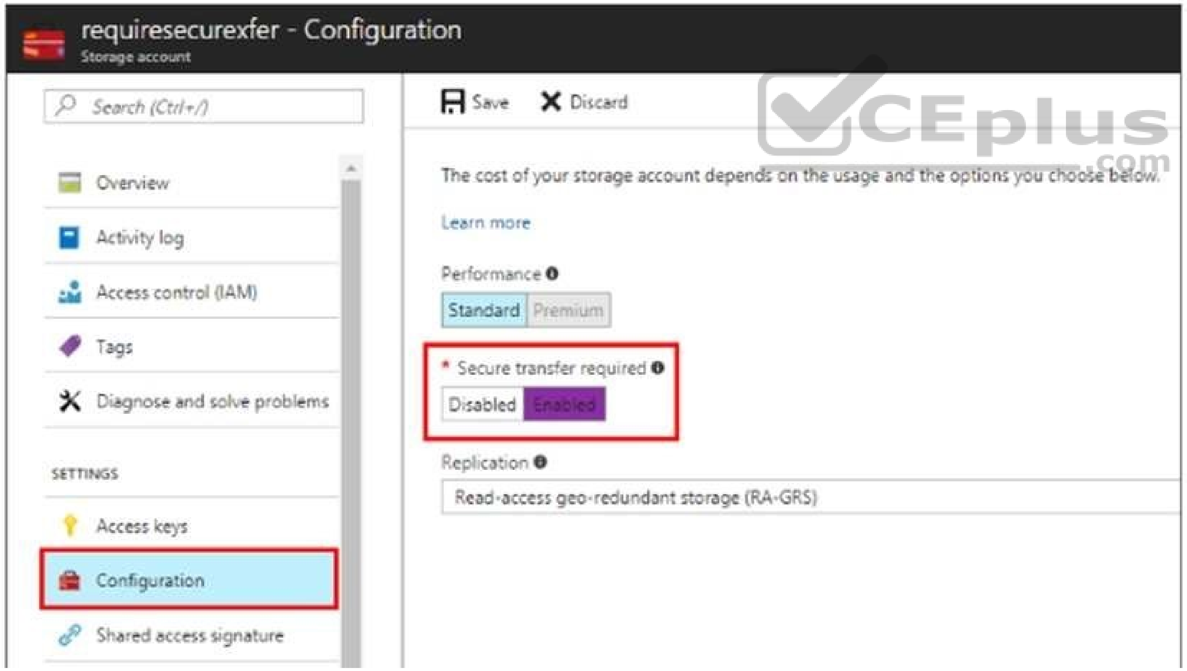
To complete this task, sign in to the Azure portal.

Correct Answer: See the explanation below.
Section: (none)
Explanation

Explanation/Reference:
Explanation:
The "Secure transfer required" feature is now supported in Azure Storage account. This feature enhances the security of your storage account by enforcing all requests to your account through a secure connection. This feature is disabled by default.

1. In Azure Portal select you Azure Storage account rg1lod10598168n1.

2. Select Configuration, and Secure Transfer required.



requiresecurexfer - Configuration
Storage account

The cost of your storage account depends on the usage and the options you choose below.

Learn more

Performance: Standard

* Secure transfer required: Enabled

Replication: Read-access geo-redundant storage (RA-GRS)

Reference:

https://techcommunity.microsoft.com/t5/Azure/quot-Secure-transfer-required-quot-is-available-in-Azure-Storage/m-p/82475

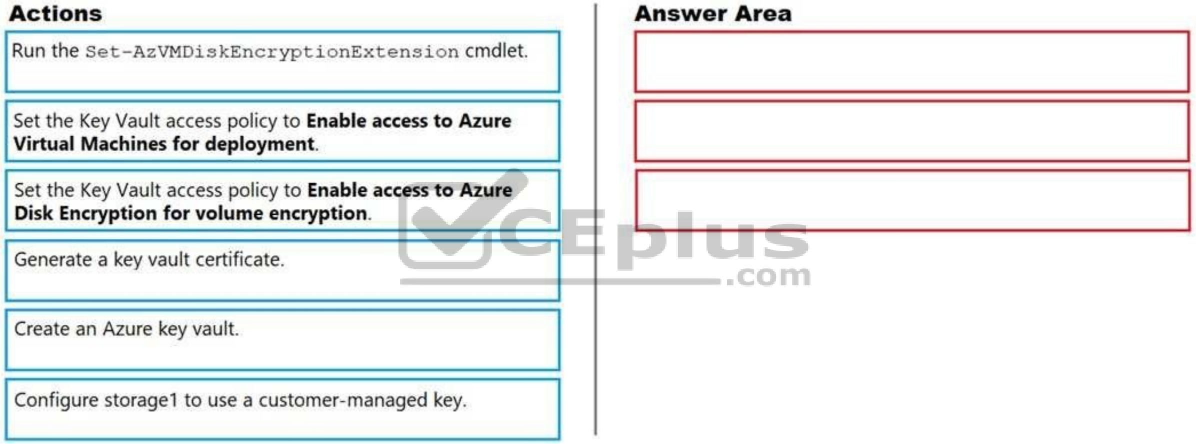
QUESTION 19
DRAG DROP

You have an Azure Storage account named storage1 and an Azure virtual machine named VM1. VM1 has a premium SSD managed disk.

You need to enable Azure Disk Encryption for VM1.

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 then in the correct order.

Select and Place:

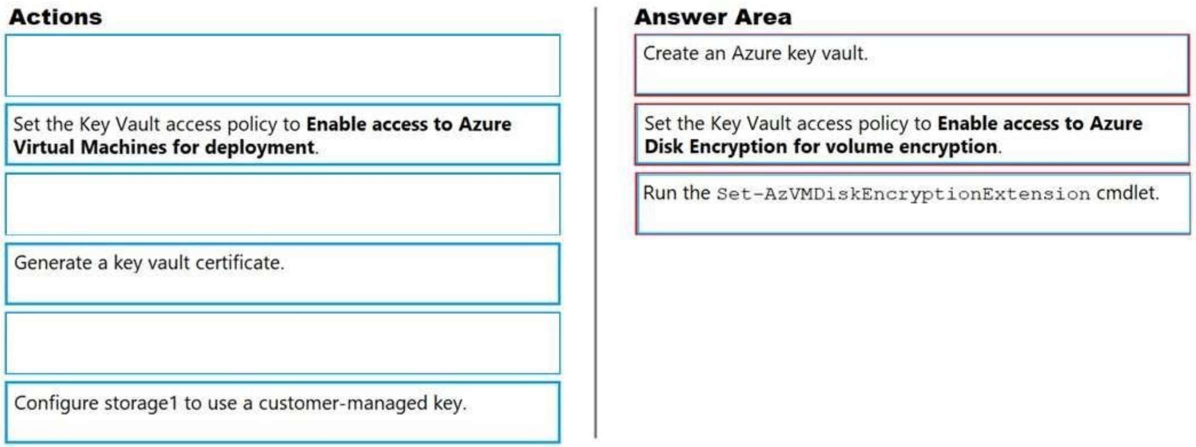


Actions

- Run the `Set-AzVMDiskEncryptionExtension` cmdlet.
- Set the Key Vault access policy to **Enable access to Azure Virtual Machines for deployment**.
- Set the Key Vault access policy to **Enable access to Azure Disk Encryption for volume encryption**.
- Generate a key vault certificate.
- Create an Azure key vault.
- Configure storage1 to use a customer-managed key.

Answer Area

Correct Answer:



Actions

Set the Key Vault access policy to **Enable access to Azure Virtual Machines for deployment**.

Generate a key vault certificate.

Configure storage1 to use a customer-managed key.

Answer Area

Create an Azure key vault.

Set the Key Vault access policy to **Enable access to Azure Disk Encryption for volume encryption**.

Run the `Set-AzVMDiskEncryptionExtension` cmdlet.

Section: (none)
Explanation

Explanation/Reference:
Reference: https://docs.microsoft.com/en-us/azure/virtual-machines/windows/disk-encryption-key-vault

QUESTION 20
SIMULATION You need to enable Advanced Data Security for the SQLdb1 Azure SQL database. The solution must ensure that Azure Advanced Threat Protection (ATP) alerts are sent to User1@contoso.com.

To complete this task, sign in to the Azure portal and modify the Azure resources.

Correct Answer: See the explanation below.
Section: (none)
Explanation

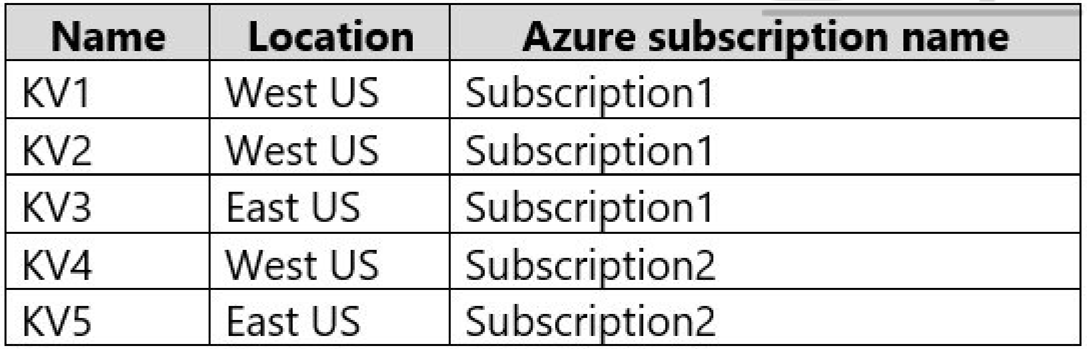
Explanation/Reference:
Explanation:

In the Azure portal, type **SQL** in the search box, select **SQL databases** from the search results then select **SQLdb1**. Alternatively, browse to **SQL databases** in the left navigation pane.
In the properties of SQLdb1, scroll down to the **Security** section and select **Advanced data security.**
Click on the **Settings** icon.
Tick the **Enable Advanced Data Security at the database level** checkbox.
Click **Yes** at the confirmation prompt.
In the **Storage account** select a storage account if one isn't selected by default.
Under **Advanced Threat Protection Settings,** enter **User1@contoso.com** in the **Send alerts to** box.
Click the **Save** button to save the changes.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/advanced-data-security

QUESTION 21
HOTSPOT

You have the Azure key vaults shown in the following table.



Name	Location	Azure subscription name
KV1	West US	Subscription1
KV2	West US	Subscription1
KV3	East US	Subscription1
KV4	West US	Subscription2
KV5	East US	Subscription2

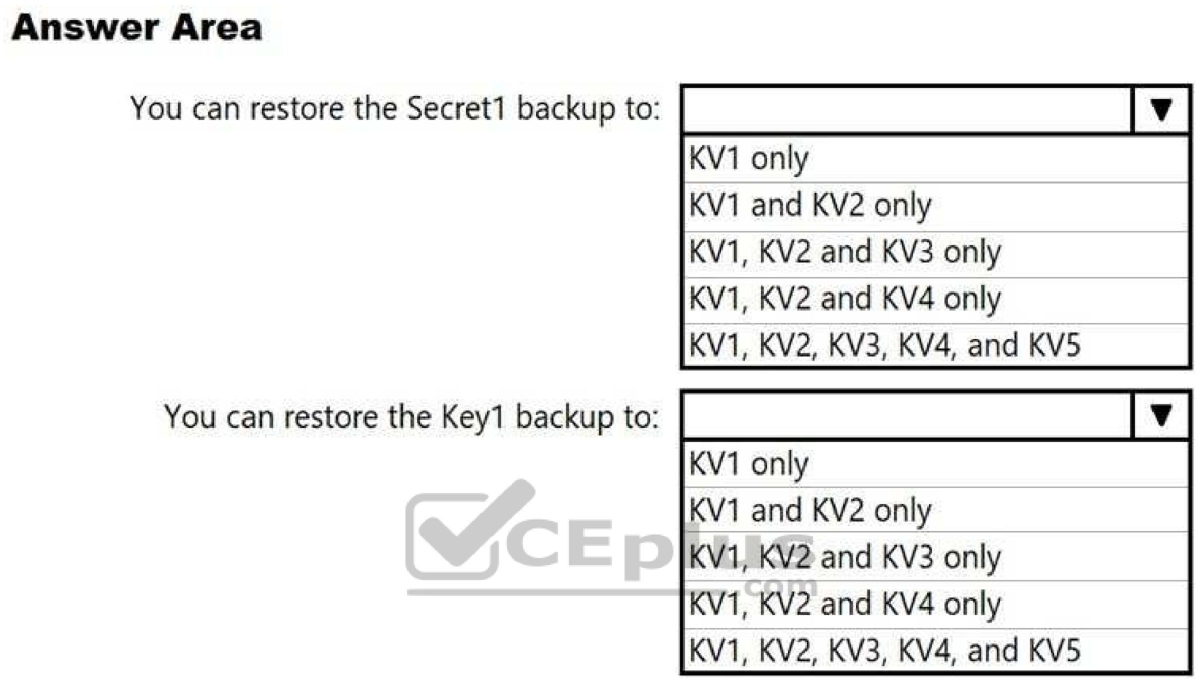
KV1 stores a secret named Secret1 and a key for a managed storage account named Key1.

You back up Secret1 and Key1.

To which key vaults can you restore each backup? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:



Answer Area

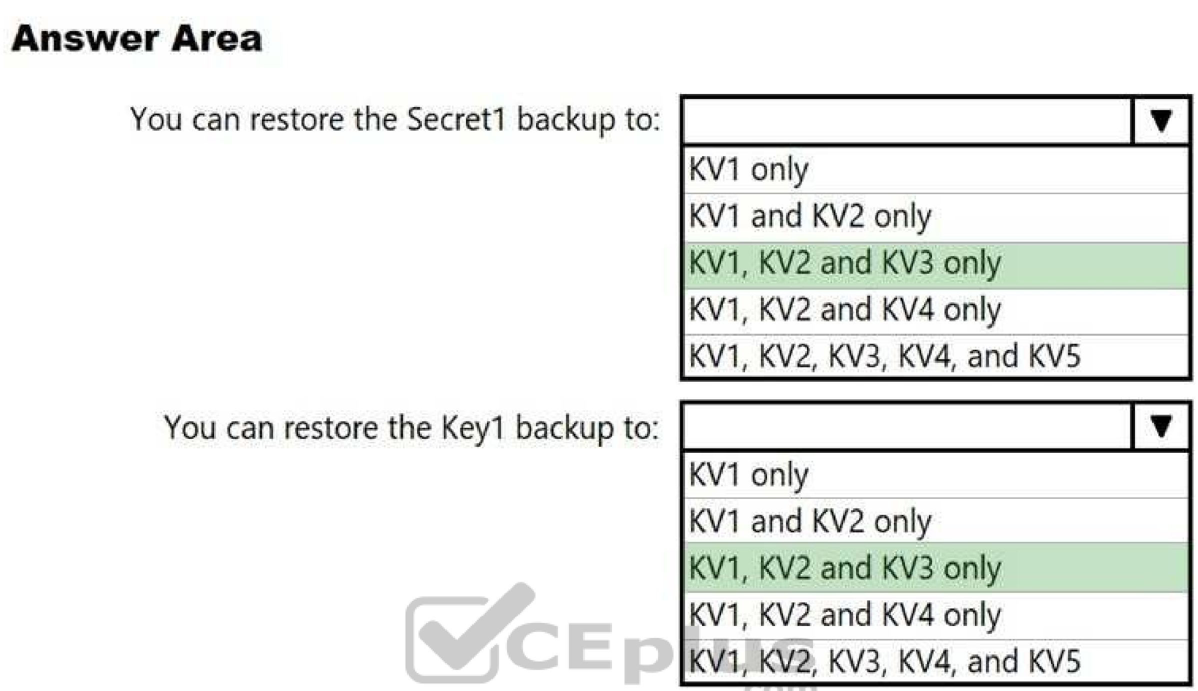
You can restore the Secret1 backup to:

- KV1 only
- KV1 and KV2 only
- KV1, KV2 and KV3 only
- KV1, KV2 and KV4 only
- KV1, KV2, KV3, KV4, and KV5

You can restore the Key1 backup to:

- KV1 only
- KV1 and KV2 only
- KV1, KV2 and KV3 only
- KV1, KV2 and KV4 only
- KV1, KV2, KV3, KV4, and KV5

Correct Answer:



Answer Area

You can restore the Secret1 backup to: ▼

- KV1 only
- KV1 and KV2 only
- [✓ KV1, KV2 and KV3 only]
- KV1, KV2 and KV4 only
- KV1, KV2, KV3, KV4, and KV5

You can restore the Key1 backup to: ▼

- KV1 only
- KV1 and KV2 only
- [✓ KV1, KV2 and KV3 only]
- KV1, KV2 and KV4 only
- KV1, KV2, KV3, KV4, and KV5

Section: (none)
Explanation

Explanation/Reference:
Explanation:

The backups can only be restored to key vaults in the same subscription and same geography. You can restore to a different region in the same geography.

Mix Questions

Question Set 1

QUESTION 1
You onboard Azure Sentinel. You connect Azure Sentinel to Azure Security Center.

You need to automate the mitigation of incidents in Azure Sentinel. The solution must minimize administrative effort.

What should you create?

A. an alert rule
B. a playbook
C. a function app
D. a runbook

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 2
Your network contains an on-premises Active Directory domain named corp.contoso.com.

You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You sync all on-premises identities to Azure AD.

You need to prevent users who have a givenName attribute that starts with TEST from being synced to Azure AD. The solution must minimize administrative effort.

What should you use?

A. Synchronization Rules Editor
B. Web Service Configuration Tool
C. the Azure AD Connect wizard
D. Active Directory Users and Computers

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Use the Synchronization Rules Editor and write attribute-based filtering rule.

Reference: https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-sync-change-the-configuration

QUESTION 3
You have Azure Resource Manager templates that you use to deploy Azure virtual machines.

You need to disable unused Windows features automatically as instances of the virtual machines are provisioned.

What should you use?

A. device compliance policies in Microsoft Intune
B. Azure Automation State Configuration
C. application security groups
D. Azure Advisor

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Explanation:

You can use Azure Automation State Configuration to manage Azure VMs (both Classic and Resource Manager),on-premises VMs, Linux machines, AWS VMs, and on-premises physical machines. Note: Azure Automation State Configuration provides a DSC pull server similar to the Windows Feature DSC Service so that target nodes automatically receive configurations, conform to the desired state, and report back on their compliance. The built-in pull server in Azure Automation eliminates the need to set up and maintain your own pull server. Azure Automation can target virtual or physical Windows or Linux machines, in the cloud or onpremises.

QUESTION 4
You have an Azure subscription named Sub1 that is associated to an Azure Active Directory (Azure AD) tenant named contoso.com.

You are assigned the Global administrator role for the tenant. You are responsible for managing Azure Security Center settings.

You need to create a custom sensitivity label.

What should you do?

A. Create a custom sensitive information type.
B. Elevate access for global administrators in Azure AD.

C. Upgrade the pricing tier of the Security Center to Standard.
D. Enable integration with Microsoft Cloud App Security.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
Explanation:
First, you need to create a new sensitive information type because you can't directly modify the default rules.

Reference: https://docs.microsoft.com/en-us/office365/securitycompliance/customize-a-built-in-sensitive-information-type

QUESTION 5
You have an Azure subscription named Subscription1.

You deploy a Linux virtual machine named VM1 to Subscription1.

You need to monitor the metrics and the logs of VM1.

What should you use?

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

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:
QUESTION 6
You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com.

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

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

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

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

What should you do?

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

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
From Azure Security Center, you enable Azure Container Registry vulnerability scanning of the images in Registry1.

You perform the following actions:

▪ Push a Windows image named Image1 to Registry1. ▪
Push a Linux image named Image2 to Registry1.
▪ Push a Windows image named Image3 to Registry1.
▪ Modify Image1 and push the new image as Image4 to Registry1.
▪ Modify Image2 and push the new image as Image5 to Registry1.

Which two images will be scanned for vulnerabilities? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

A. Image4
B. Image2
C. Image1
D. Image3

E. Image5

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

Mix Questions

Testlet 2

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**

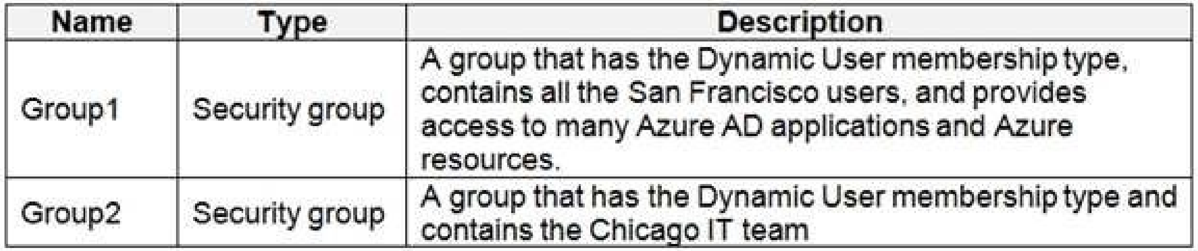
Litware, Inc. is a digital media company that has 500 employees in the Chicago area and 20 employees in the San Francisco area.

Existing Environment

Litware has an Azure subscription named Sub1 that has a subscription ID of 43894a43-17c2-4a39-8cfc-3540c2653ef4.

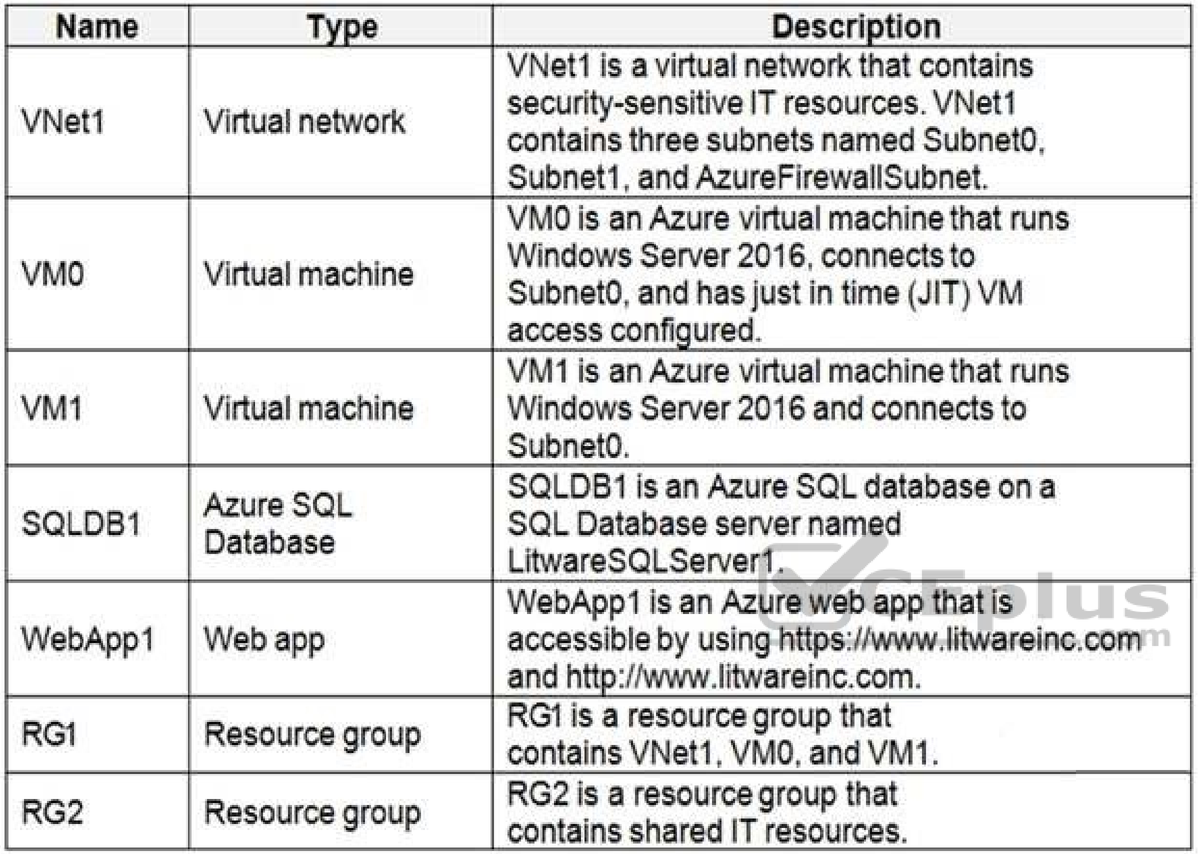
Sub1 is associated to an Azure Active Directory (Azure AD) tenant named litwareinc.com. The tenant contains the user objects and the device objects of all the Litware employees and their devices. Each user is assigned an Azure AD Premium P2 license. Azure AD Privileged Identity Management (PIM) is activated.

The tenant contains the groups shown in the following table.



Name	Type	Description
Group1	Security group	A group that has the Dynamic User membership type, contains all the San Francisco users, and provides access to many Azure AD applications and Azure resources.
Group2	Security group	A group that has the Dynamic User membership type and contains the Chicago IT team

The Azure subscription contains the objects shown in the following table.



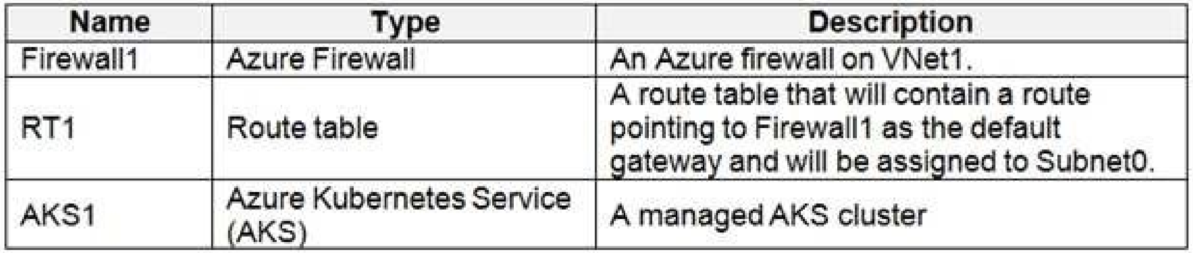
Name	Type	Description
VNet1	Virtual network	VNet1 is a virtual network that contains security-sensitive IT resources. VNet1 contains three subnets named Subnet0, Subnet1, and AzureFirewallSubnet.
VM0	Virtual machine	VM0 is an Azure virtual machine that runs Windows Server 2016, connects to Subnet0, and has just in time (JIT) VM access configured.
VM1	Virtual machine	VM1 is an Azure virtual machine that runs Windows Server 2016 and connects to Subnet0.
SQLDB1	Azure SQL Database	SQLDB1 is an Azure SQL database on a SQL Database server named LitwareSQLServer1.
WebApp1	Web app	WebApp1 is an Azure web app that is accessible by using https://www.litwareinc.com and http://www.litwareinc.com.
RG1	Resource group	RG1 is a resource group that contains VNet1, VM0, and VM1.
RG2	Resource group	RG2 is a resource group that contains shared IT resources.

Azure Security Center is set to the Standard tier.

Requirements

Planned Changes

Litware plans to deploy the Azure resources shown in the following table.



Name	Type	Description
Firewall1	Azure Firewall	An Azure firewall on VNet1.
RT1	Route table	A route table that will contain a route pointing to Firewall1 as the default gateway and will be assigned to Subnet0.
AKS1	Azure Kubernetes Service (AKS)	A managed AKS cluster

Identity and Access Requirements

Litware identifies the following identity and access requirements:

- All San Francisco users and their devices must be members of Group1.
- The members of Group2 must be assigned the Contributor role to RG2 by using a permanent eligible assignment.
- Users must be prevented from registering applications in Azure AD and from consenting to applications that access company information on the users' behalf.

Platform Protection Requirements

Litware identifies the following platform protection requirements:

- Microsoft Antimalware must be installed on the virtual machines in RG1.
- The members of Group2 must be assigned the Azure Kubernetes Service Cluster Admin Role.
- Azure AD users must be able to authenticate to AKS1 by using their Azure AD credentials.
- Following the implementation of the planned changes, the IT team must be able to connect to VM0 by using JIT VM access.
- A new custom RBAC role named Role1 must be used to delegate the administration of the managed disks in RG1. Role1 must be available only for RG1.

Security Operations Requirements

Litware must be able to customize the operating system security configurations in Azure Security Center.

Data and Application Requirements

Litware identifies the following data and applications requirements:

- The users in Group2 must be able to authenticate to SQLDB1 by using their Azure AD credentials. ▪
WebApp1 must enforce mutual authentication.

General Requirements

Litware identifies the following general requirements:

▪ Whenever possible, administrative effort must be minimized.▪
Whenever possible, use of automation must be maximized.

QUESTION 1

You need to ensure that you can meet the security operations requirements. What should you do first?

A. Turn on Auto Provisioning in Security Center.
B. Integrate Security Center and Microsoft Cloud App Security.
C. Upgrade the pricing tier of Security Center to Standard.
D. Modify the Security Center workspace configuration.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:

The Standard tier extends the capabilities of the Free tier to workloads running in private and other public clouds, providing unified security management and threat protection across your hybrid cloud workloads. The Standard tier also adds advanced threat detection capabilities, which uses built-in behavioral analytics and machine learning to identify attacks and zero-days exploits, access and application controls to reduce exposure to network attacks and malware, and more.
Scenario: Security Operations Requirements.
Litware must be able to customize the operating system security configurations in Azure Security Center.

Reference: https://docs.microsoft.com/en-us/azure/security-center/security-center-pricing