Microsoft

(AZ-305)

Designing Microsoft Azure Infrastructure Solutions

Total: **288 Questions**

Link:

Question: 1

You have an Azure subscription that contains a custom application named Application1. Application1 was developed by an external company named Fabrikam,
Ltd. Developers at Fabrikam were assigned role-based access control (RBAC) permissions to the Application1 components. All users are licensed for the
Microsoft 365 E5 plan.
You need to recommend a solution to verify whether the Fabrikam developers still require permissions to Application1. The solution must meet the following requirements:
☞ To the manager of the developers, send a monthly email message that lists the access permissions to Application1.
☞ If the manager does not verify an access permission, automatically revoke that permission.
☞ Minimize development effort.
What should you recommend?

A. In Azure Active Directory (Azure AD), create an access review of Application1.
B. Create an Azure Automation runbook that runs the Get-AzRoleAssignment cmdlet.
C. In Azure Active Directory (Azure AD) Privileged Identity Management, create a custom role assignment for the Application1 resources.
D. Create an Azure Automation runbook that runs the Get-AzureADUserAppRoleAssignment cmdlet.

Answer: A

Explanation:

In Azure Active Directory (Azure AD), create an access review of Application1.

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/governance/manage-user-access-with-access-reviews

Question: 2

You have an Azure subscription. The subscription has a blob container that contains multiple blobs. Ten users in the finance department of your company plan to access the blobs during the month of April.
You need to recommend a solution to enable access to the blobs during the month of April only. Which security solution should you include in the recommendation?

A. shared access signatures (SAS)
B. Conditional Access policies
C. certificates
D. access keys

Answer: A

Explanation:
Shared Access Signatures (SAS) allows for limited-time fine grained access control to resources. So you can generate URL, specify duration (for month of April) and disseminate URL to 10 team members. On May 1, the SAS token is automatically invalidated, denying team members continued access.

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

Question: 3

You have an Azure Active Directory (Azure AD) tenant that syncs with an on-premises Active Directory domain. You have an internal web app named WebApp1 that is hosted on-premises. WebApp1 uses Integrated Windows authentication.
Some users work remotely and do NOT have VPN access to the on-premises network.
You need to provide the remote users with single sign-on (SSO) access to WebApp1.
Which two features should you include in the solution? Each correct answer presents part of the solution. NOTE:
Each correct selection is worth one point.

A. Azure AD Application Proxy
B. Azure AD Privileged Identity Management (PIM)
C. Conditional Access policies
D. Azure Arc
E. Azure AD enterprise applications
F. Azure Application Gateway

Answer: AE

Explanation:
A: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client. Application Proxy includes both the
Application Proxy service which runs in the cloud, and the Application Proxy connector which runs on an on-premises server.
You can configure single sign-on to an Application Proxy application.
E: Add an on-premises app to Azure AD
Now that you've prepared your environment and installed a connector, you're ready to add on-premises applications to Azure AD.
1. Sign in as an administrator in the Azure portal.
2. In the left navigation panel, select Azure Active Directory.
3. Select Enterprise applications, and then select New application.
4. Select Add an on-premises application button which appears about halfway down the page in the On-premises applications section. Alternatively, you can select Create your own application at the top of the page and then select Configure Application Proxy for secure remote access to an on-premise application.
5. In the Add your own on-premises application section, provide the following information about your application.
6. Etc.
Incorrect:
Not C: Conditional Access policies are not required.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-appli cation

Question: 4

You have an Azure Active Directory (Azure AD) tenant named contoso.com that has a security group named Group1. Group1 is configured for assigned membership. Group1 has 50 members, including 20 guest users.
You need to recommend a solution for evaluating the membership of Group1. The solution must meet the following requirements:
☞ The evaluation must be repeated automatically every three months.
☞ Every member must be able to report whether they need to be in Group1.
☞ Users who report that they do not need to be in Group1 must be removed from Group1 automatically.
☞ Users who do not report whether they need to be in Group1 must be removed from Group1 automatically. What should you include in the recommendation?

A. Implement Azure AD Identity Protection.
B. Change the Membership type of Group1 to Dynamic User.
C. Create an access review.
D. Implement Azure AD Privileged Identity Management (PIM).

Answer: C

Explanation:

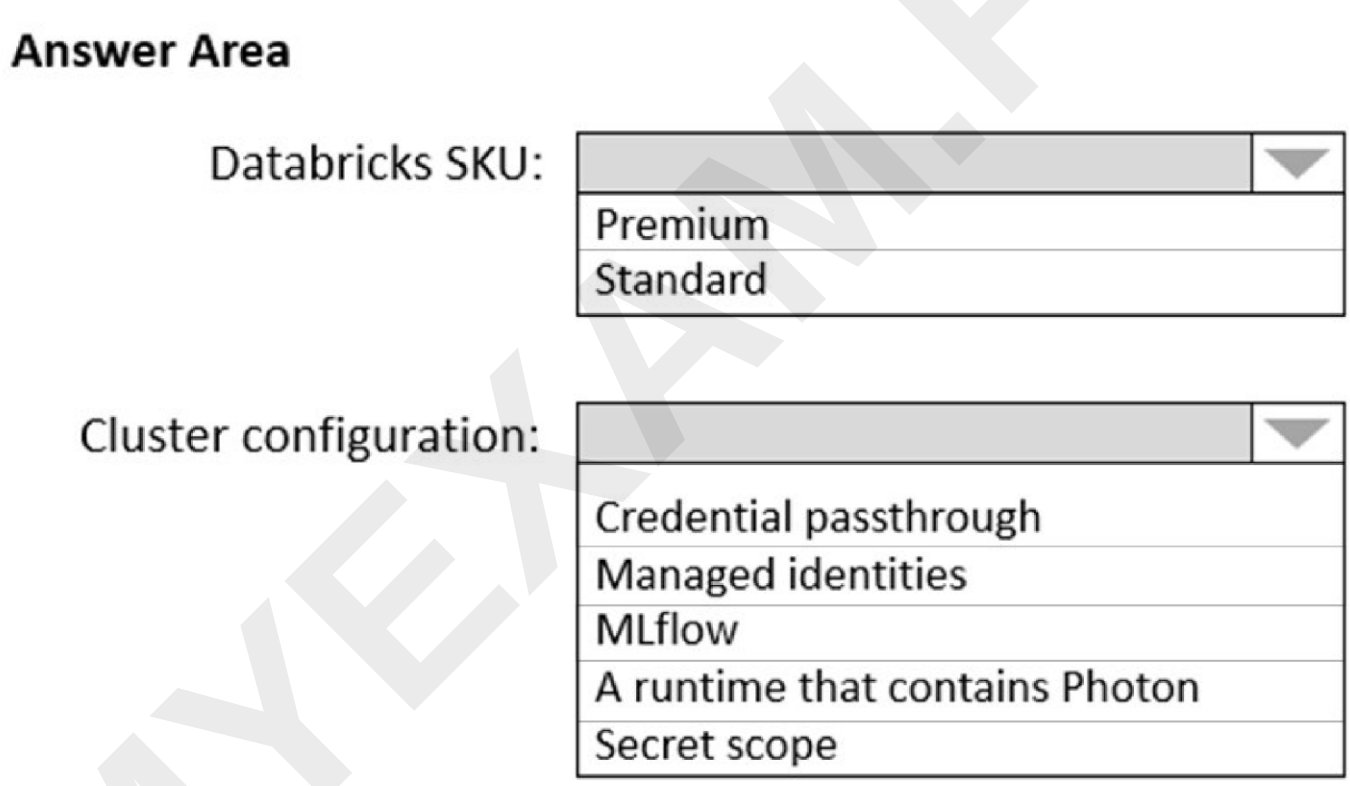
Azure Active Directory (Azure AD) access reviews enable organizations to efficiently manage group memberships, access to enterprise applications, and role assignments. User's access can be reviewed on a regular basis to make sure only the right people have continued access.

Reference:

https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview

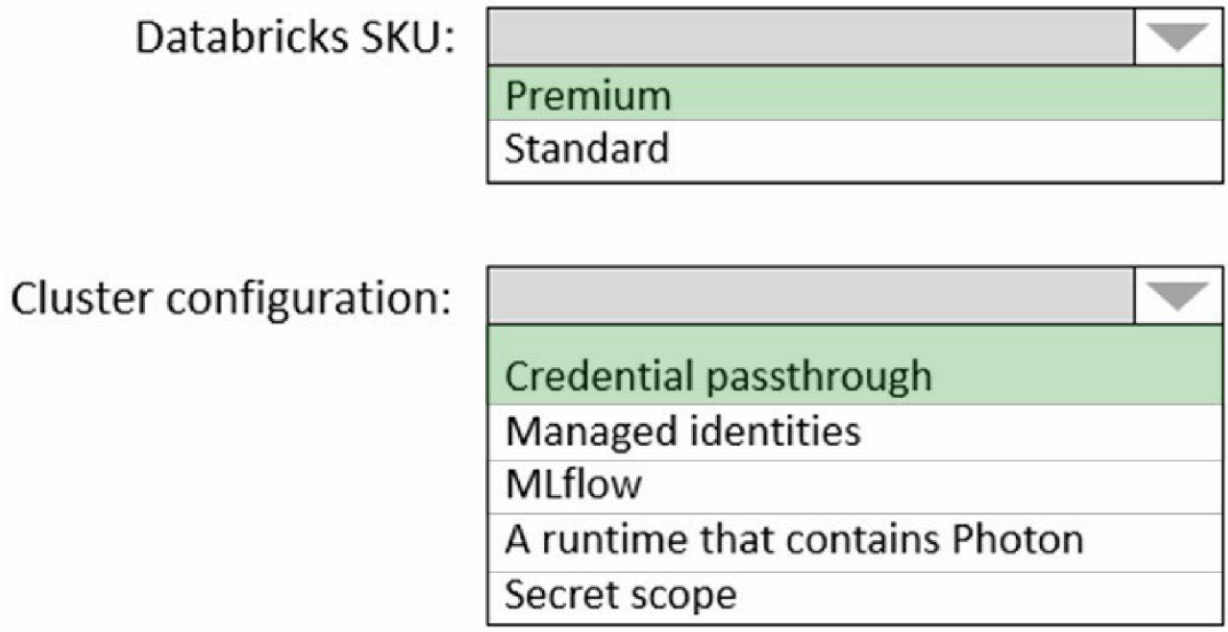
Question: 5

HOTSPOT -
You plan to deploy Azure Databricks to support a machine learning application. Data engineers will mount an Azure Data Lake Storage account to the Databricks file system. Permissions to folders are granted directly to the data engineers.
You need to recommend a design for the planned Databrick deployment. The solution must meet the following requirements:
☞ Ensure that the data engineers can only access folders to which they have permissions.
☞ Minimize development effort.
☞ Minimize costs.
What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.
Hot Area:



Answer:

Answer Area



Explanation:
Box 1: Premium -
Premium Databricks SKU is required for credential passhtrough.

Box 2: Credential passthrough -
Athenticate automatically to Azure Data Lake Storage Gen1 (ADLS Gen1) and Azure Data Lake Storage Gen2 (ADLS Gen2) from Azure Databricks clusters using the same Azure Active Directory (Azure AD) identity that you use to log into Azure Databricks. When you enable Azure Data Lake Storage credential passthrough for your cluster, commands that you run on that cluster can read and write data in Azure Data Lake Storage without requiring you to configure service principal credentials for access to storage.

Reference:
https://docs.microsoft.com/en-us/azure/databricks/security/credential-passthrough/adls-passthrough

Question: 6

HOTSPOT -
You plan to deploy an Azure web app named App1 that will use Azure Active Directory (Azure AD) authentication.
App1 will be accessed from the internet by the users at your company. All the users have computers that run Windows 10 and are joined to Azure AD.
You need to recommend a solution to ensure that the users can connect to App1 without being prompted for authentication and can access App1 only from company-owned computers.
What should you recommend for each requirement? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The users can connect to App1 without being prompted for authentication:

- An Azure AD app registration
- An Azure AD managed identity
- Azure AD Application Proxy

The users can access App1 only from company-owned computers:

- A Conditional Access policy
- An Azure AD administrative unit
- Azure Application Gateway
- Azure Blueprints
- Azure Policy

Answer:

Answer Area

The users can connect to App1 without being prompted for authentication:

- An Azure AD app registration
- An Azure AD managed identity
- Azure AD Application Proxy

The users can access App1 only from company-owned computers:

- A Conditional Access policy
- An Azure AD administrative unit
- Azure Application Gateway
- Azure Blueprints
- Azure Policy

Explanation:

Box 1: An Azure AD app registration

Azure active directory (AD) provides cloud based directory and identity management services.You can use azure AD to manage users of your application and authenticate access to your applications using azure active directory.

You register your application with Azure active directory tenant.

Box 2: A conditional access policy

Conditional Access policies at their simplest are if-then statements, if a user wants to access a resource, then they must complete an action.

By using Conditional Access policies, you can apply the right access controls when needed to keep your organization secure and stay out of your user's way when not needed.

Reference:

https://codingcanvas.com/using-azure-active-directory-authentication-in-your-web-application/ https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/overview

Question: 7

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.
After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.
Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.
Several virtual machines exhibit network connectivity issues.
You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.
Solution: Use Azure Traffic Analytics in Azure Network Watcher to analyze the network traffic.
Does this meet the goal?

A. Yes
B. No

Answer: B

Explanation:

(Traffic Analytics) under (Network Watcher) gives you statistical data and traffic visualization like total inbound and outbound flows and the number of deployed NSGs. However, it doesn't give you information if packets are allows of denied. Check screenshot in the following reference: https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics

(IP Flow Verify) under (Network Watcher) gives you option to verify if traffic is allowed or denied. Check screenshot in the following reference: https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview

Correct answer is B.

Question: 8

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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Several virtual machines exhibit network connectivity issues.
You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.
Solution: Use Azure Advisor to analyze the network traffic.
Does this meet the goal?

A. Yes
B. No

Answer: B

Explanation:
Instead use Azure Network Watcher IP Flow Verify, which allows you to detect traffic filtering issues at a VM level.
Note: IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:
https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview

Question: 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.
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Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.
Several virtual machines exhibit network connectivity issues.
You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.
Solution: Use Azure Network Watcher to run IP flow verify to analyze the network traffic.
Does this meet the goal?

A. Yes
B. No

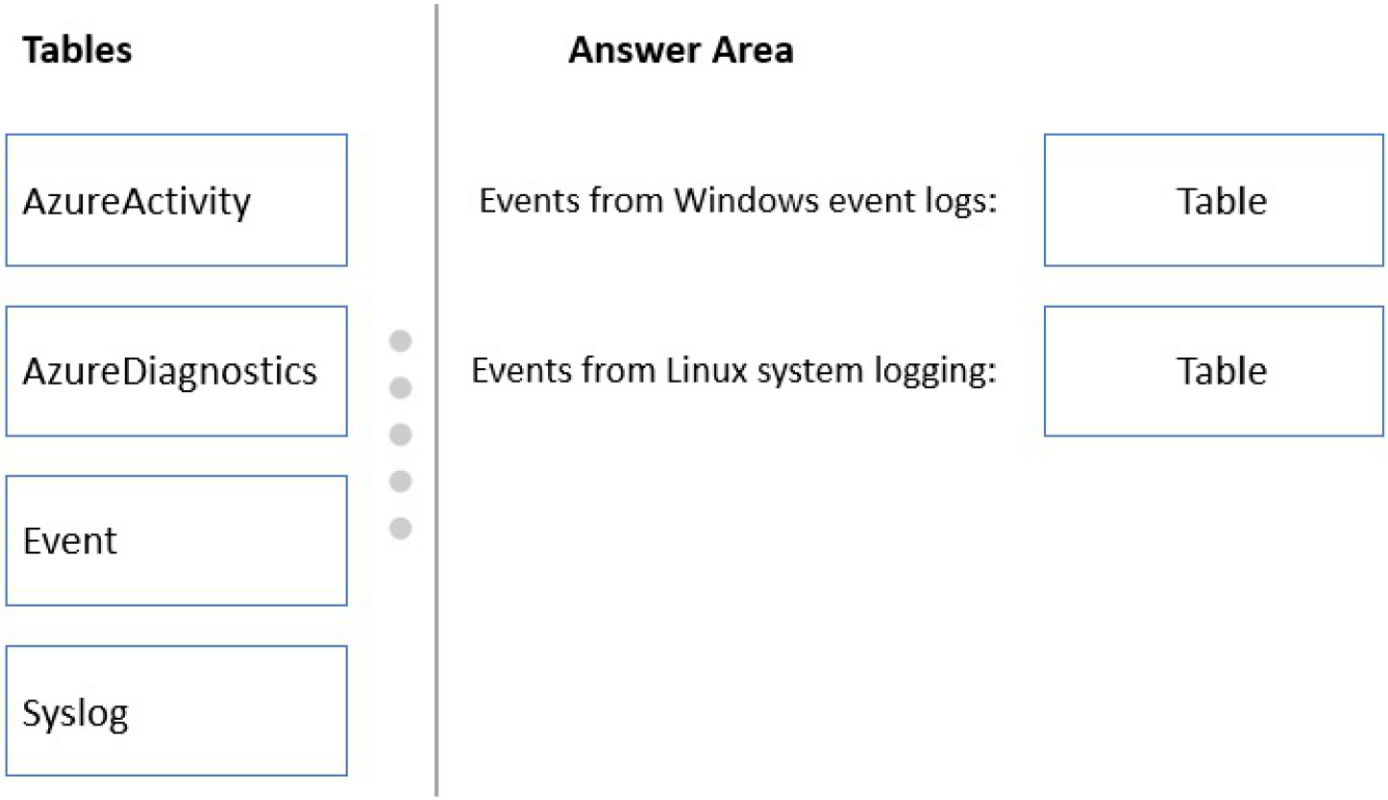
Answer: A

Explanation:
Azure Network Watcher IP Flow Verify allows you to detect traffic filtering issues at a VM level.
IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

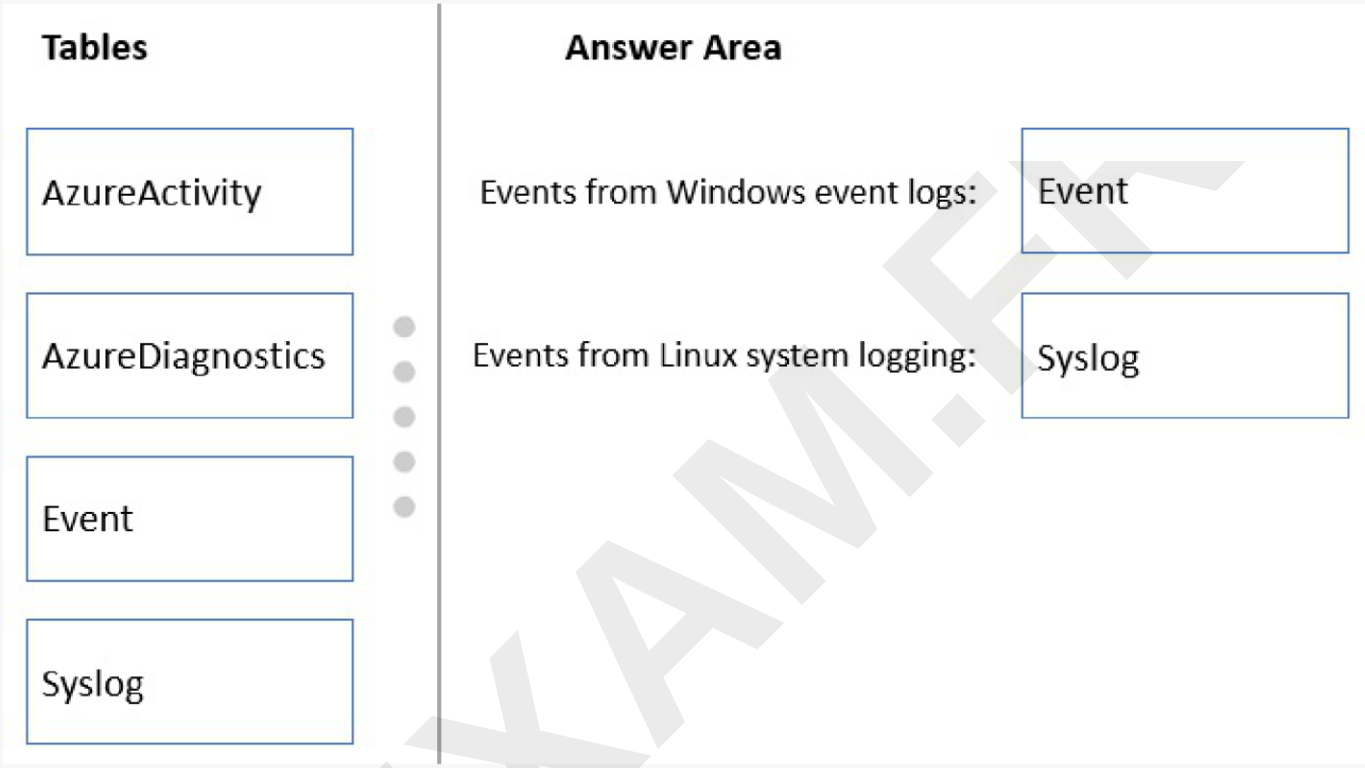
Reference:
https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview

Question: 10

DRAG DROP -
You have an Azure subscription. The subscription contains Azure virtual machines that run Windows Server 2016 and Linux.
You need to use Azure Monitor to design an alerting strategy for security-related events.
Which Azure Monitor Logs tables should you query? To answer, drag the appropriate tables to the correct log types. Each table may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Answer:



Explanation:

Windows : Event.

Linux : Syslog

Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/platform/data-sources-windows-events

https://docs.microsoft.com/en-us/azure/azure-monitor/agents/data-sources-syslog

Question: 11

You are designing a large Azure environment that will contain many subscriptions.
You plan to use Azure Policy as part of a governance solution.
To which three scopes can you assign Azure Policy definitions? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. Azure Active Directory (Azure AD) administrative units
B. Azure Active Directory (Azure AD) tenants
C. subscriptions
D. compute resources
E. resource groups
F. management groups

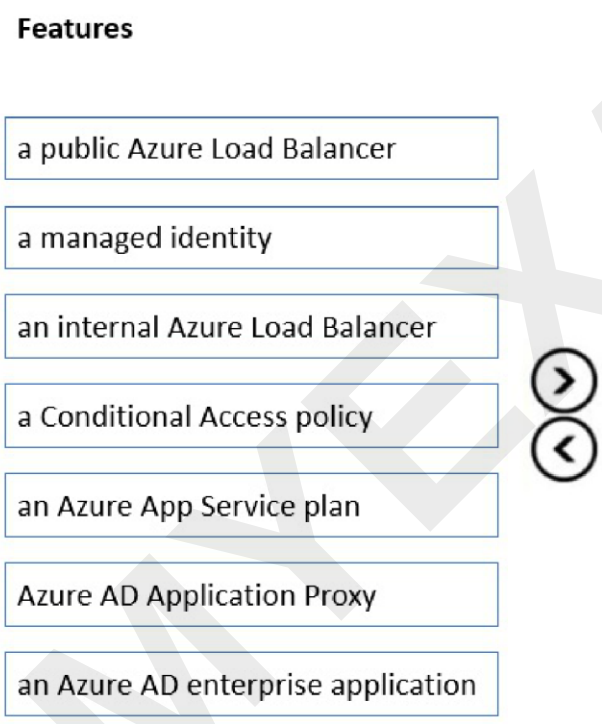
Answer: CEF

Explanation:
Azure Policy evaluates resources in Azure by comparing the properties of those resources to business rules. Once your business rules have been formed, the policy definition or initiative is assigned to any scope of resources that Azure supports, such as management groups, subscriptions, resource groups, or individual resources.

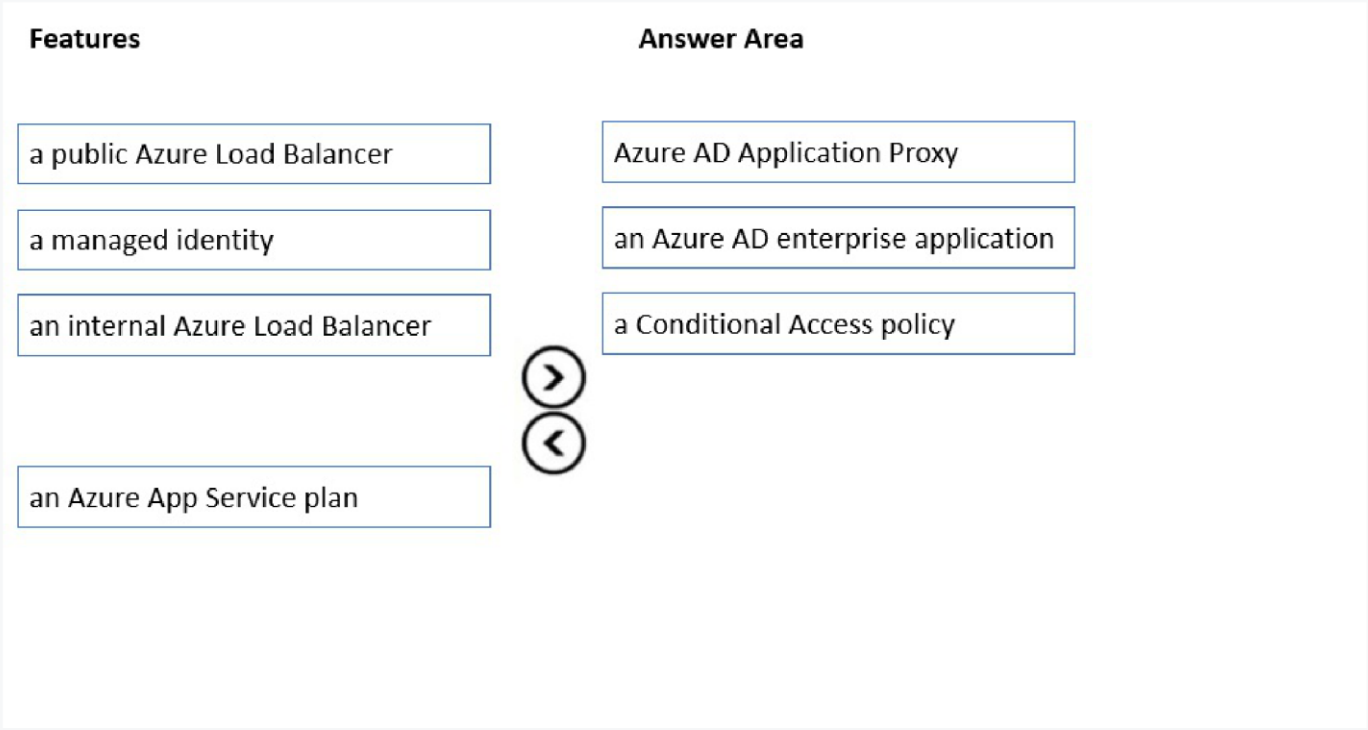
Reference:
https://docs.microsoft.com/en-us/azure/governance/policy/overview

Question: 12

DRAG DROP -
Your on-premises network contains a server named Server1 that runs an ASP.NET application named App1. You have a hybrid deployment of Azure Active Directory (Azure AD).
You need to recommend a solution to ensure that users sign in by using their Azure AD account and Azure Multi-Factor Authentication (MFA) when they connect to App1 from the internet.
Which three features should you recommend be deployed and configured in sequence? To answer, move the appropriate features from the list of features to the answer area and arrange them in the correct order.
Select and Place:



Answer:



Explanation:

Step 1: Azure AD Application Proxy.

Start by enabling communication to Azure data centers to prepare your environment for Azure AD Application Proxy.

Step 2: an Azure AD enterprise application.

Represents an application integrated with Azure AD for identity and access management.

Step 3: A Conditional Access Policy.

Enforces access controls like multi-factor authentication (MFA) based on user conditions.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-add-on-premises-application

Question: 13 You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.
What should you include in the recommendation?

A. Azure Activity Log
B. Azure Advisor
C. Azure Analysis Services
D. Azure Monitor action groups

Answer: A
Explanation:

Activity logs are kept for 90 days. You can query for any range of dates, as long as the starting date isn't more than 90 days in the past.

Through activity logs, you can determine:

- what operations were taken on the resources in your subscription
- who started the operation
- when the operation occurred
- the status of the operation
- the values of other properties that might help you research the operation

Reference:
https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/view-activity-logs

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.
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Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is deployed and configured for on-premises to Azure connectivity.
Several virtual machines exhibit network connectivity issues.
You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.
Solution: Install and configure the Azure Monitoring agent and the Dependency Agent on all the virtual machines. Use VM insights in Azure Monitor to analyze the network traffic.
Does this meet the goal?

A. Yes
B. No

Answer: B

Explanation:
Use the Azure Monitor agent if you need to:
Collect guest logs and metrics from any machine in Azure, in other clouds, or on-premises.

Use the Dependency agent if you need to:
Use the Map feature VM insights or the Service Map solution.

Note: Instead use Azure Network Watcher IP Flow Verify allows you to detect traffic filtering issues at a VM level.

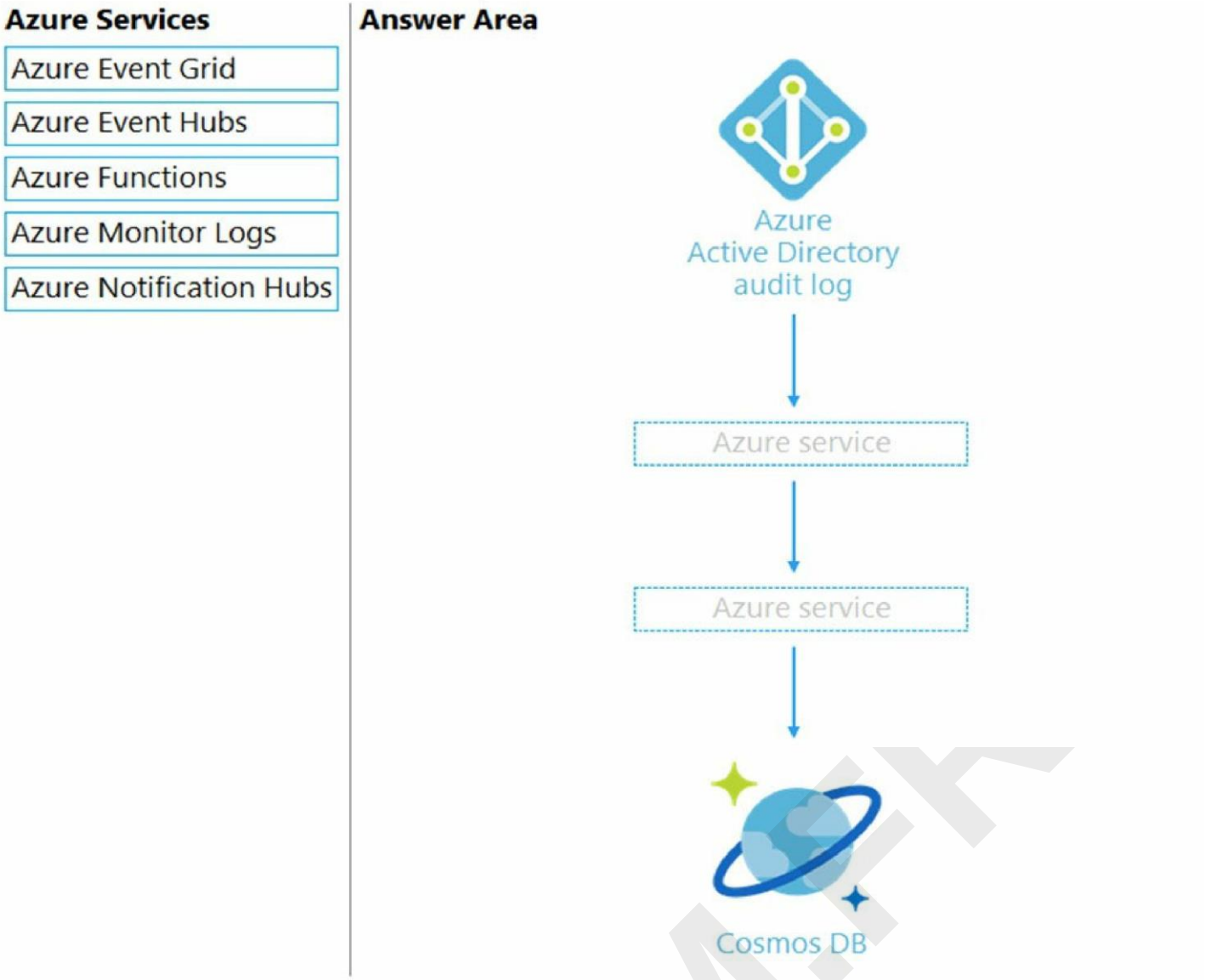
IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:
https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview https://docs.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview#dependency-agent

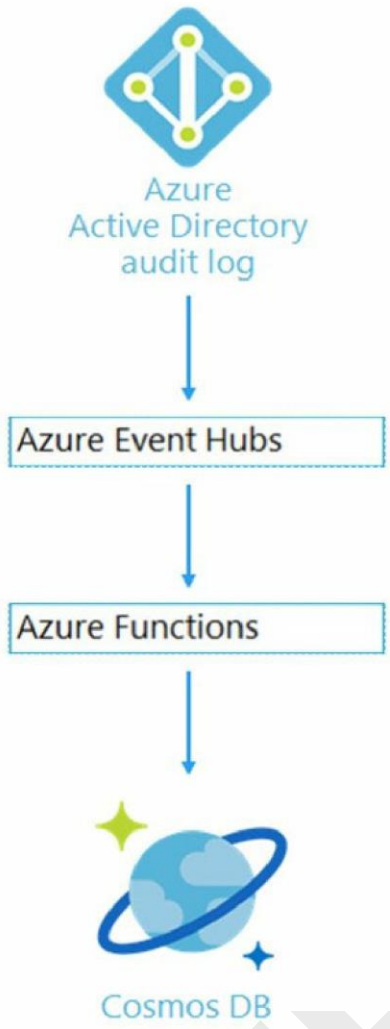
Question: 15

DRAG DROP -
You need to design an architecture to capture the creation of users and the assignment of roles. The captured data

must be stored in Azure Cosmos DB.
Which services should you include in the design? To answer, drag the appropriate services to the correct targets. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Answer:

Azure Services	Answer Area
Azure Event Grid	
Azure Event Hubs	
Azure Functions	
Azure Monitor Logs	
Azure Notification Hubs	

Explanation:
Box 1: Azure Event Hubs -
You can route Azure Active Directory (Azure AD) activity logs to several endpoints for long term retention and data insights.
The Event Hub is used for streaming.

Box 2: Azure Function -
Use an Azure Function along with a cosmos DB change feed, and store the data in Cosmos DB.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/concept-activity-logs-azure-monitor

Question: 16

Your company, named Contoso, Ltd., implements several Azure logic apps that have HTTP triggers. The logic apps provide access to an on-premises web service.
Contoso establishes a partnership with another company named Fabrikam, Inc.
Fabrikam does not have an existing Azure Active Directory (Azure AD) tenant and uses third-party OAuth 2.0 identity management to authenticate its users.
Developers at Fabrikam plan to use a subset of the logic apps to build applications that will integrate with the on-premises web service of Contoso.
You need to design a solution to provide the Fabrikam developers with access to the logic apps. The solution must meet the following requirements:
☞ Requests to the logic apps from the developers must be limited to lower rates than the requests from the users at Contoso.

☞ The developers must be able to rely on their existing OAuth 2.0 provider to gain access to the logic apps.☞ The solution must NOT require changes to the logic apps.
☞ The solution must NOT use Azure AD guest accounts.
What should you include in the solution?

A. Azure Front Door
B. Azure AD Application Proxy
C. Azure AD business-to-business (B2B)
D. Azure API Management

Answer: D

Explanation:
Many APIs support OAuth 2.0 to secure the API and ensure that only valid users have access, and they can only access resources to which they're entitled. To use Azure API Management's interactive developer console with such APIs, the service allows you to configure your service instance to work with your OAuth 2.0 enabled API.

Incorrect:
Azure AD business-to-business (B2B) uses guest accounts.
Azure AD Application Proxy is for on-premises scenarios.

Reference:
https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-oauth2

Question: 17

HOTSPOT -
You have an Azure subscription that contains 300 virtual machines that run Windows Server 2019. You need to centrally monitor all warning events in the System logs of the virtual machines.
What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Resource to create in Azure:

- An event hub
- A Log Analytics workspace
- A search service
- A storage account

Configuration to perform on the virtual machines:

- Create event subscriptions
- Configure Continuous delivery
- Install the Azure Monitor agent
- Modify the membership of the Event Log Readers group

Answer:

Answer Area

Resource to create in Azure:

- An event hub
- A Log Analytics workspace
- A search service
- A storage account

Configuration to perform on the virtual machines:

- Create event subscriptions
- Configure Continuous delivery
- Install the Azure Monitor agent
- Modify the membership of the Event Log Readers group

Explanation:

Box 1: A Log Analytics workspace

Send resource logs to a Log Analytics workspace to enable the features of Azure Monitor Logs. You must create a diagnostic setting for each Azure resource to send its resource logs to a Log Analytics workspace to use with Azure Monitor Logs.

Box 2: Install the Azure Monitor agent

Use the Azure Monitor agent if you need to:

Collect guest logs and metrics from any machine in Azure, in other clouds, or on-premises.

Manage data collection configuration centrally

Reference:

https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/resource-logs https://docs.microsoft.com/e n-us/azure/azure-monitor/agents/agents-overview#azure-monitor-agent

Question: 18

HOTSPOT -

You have several Azure App Service web apps that use Azure Key Vault to store data encryption keys.

Several departments have the following requests to support the web app:

Department	Request
Security	• Review the membership of administrative roles and require users to provide a justification for continued membership. • Get alerts about changes in administrator assignments. • See a history of administrator activation, including which changes administrators made to Azure resources.
Development	• Enable the applications to access Key Vault and retrieve keys for use in code.
Quality Assurance	• Receive temporary administrator access to create and configure additional web apps in the test environment.

Which service should you recommend for each department's request? To answer, configure the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Security:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Development:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Quality Assurance:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Answer:

Answer Area

Security:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Development:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Quality Assurance:
- Azure AD Privileged Identity Management
- Azure Managed Identity
- Azure AD Connect
- Azure AD Identity Protection

Explanation:
Box 1: Azure AD Privileged Identity Management
Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:
Provide just-in-time privileged access to Azure AD and Azure resources

Assign time-bound access to resources using start and end dates
Require approval to activate privileged roles
Enforce multi-factor authentication to activate any role
Use justification to understand why users activate
Get notifications when privileged roles are activated
Conduct access reviews to ensure users still need roles
Download audit history for internal or external audit
Prevents removal of the last active Global Administrator role assignment

Box 2: Azure Managed Identity -
Managed identities provide an identity for applications to use when connecting to resources that support Azure Active Directory (Azure AD) authentication.

Applications may use the managed identity to obtain Azure AD tokens. With Azure Key Vault, developers can use managed identities to access resources. Key
Vault stores credentials in a secure manner and gives access to storage accounts.

Box 3: Azure AD Privileged Identity Management
Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:
Provide just-in-time privileged access to Azure AD and Azure resources
Assign time-bound access to resources using start and end dates

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview

Question: 19

HOTSPOT -
Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1, Sub2	East.contoso.com
West	Sub3, Sub4	West.contoso.com

You plan to deploy a custom application to each subscription. The application will contain the following:
☞ A resource group
☞ An Azure web app
☞ Custom role assignments
☞ An Azure Cosmos DB account
You need to use Azure Blueprints to deploy the application to each subscription.
What is the minimum number of objects required to deploy the application? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

Management groups: ⌄

1
2
3
4

Blueprint definitions: ⌄

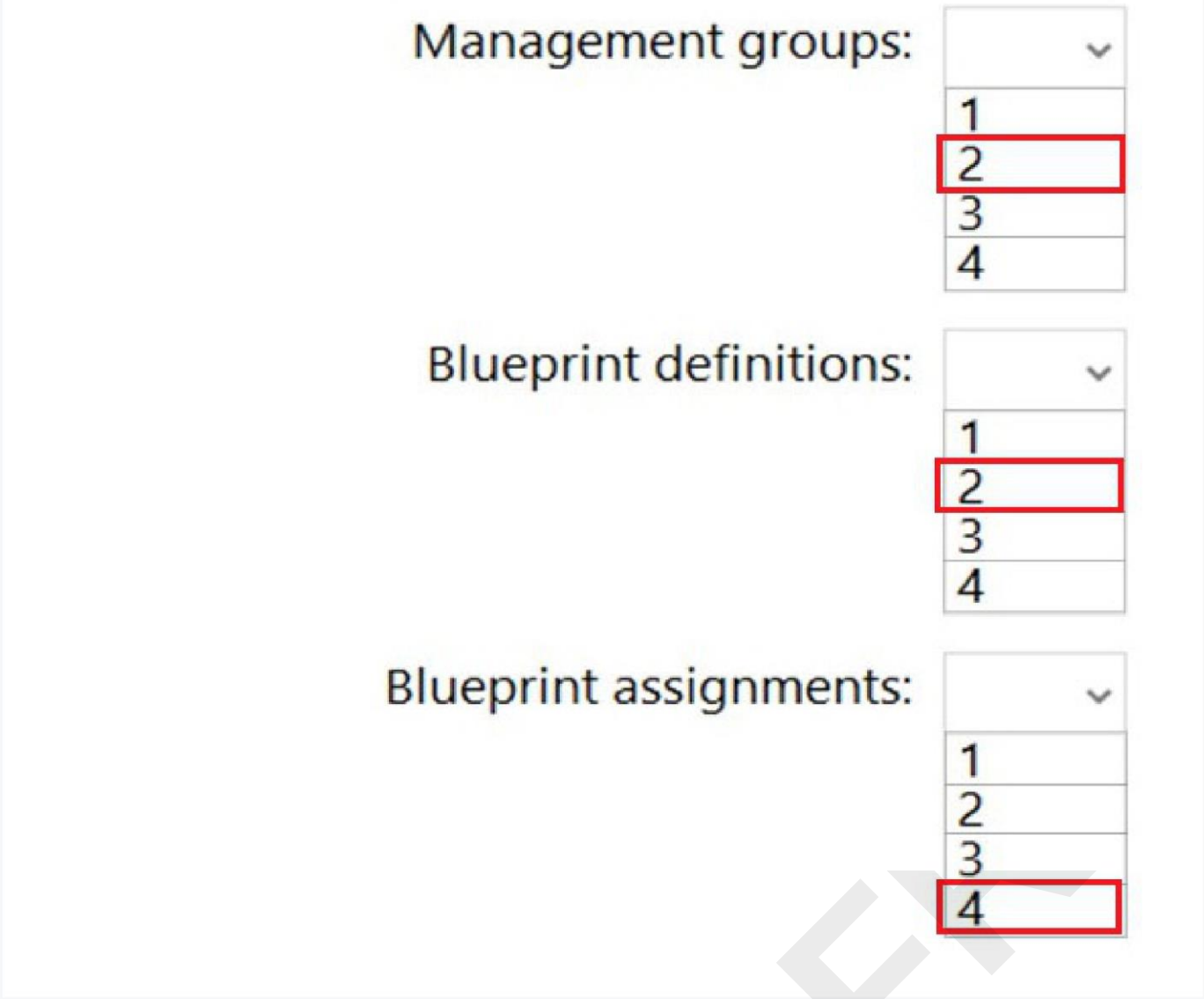
1
2
3
4

Blueprint assignments: ⌄

1
2
3
4

Answer:

Answer Area



Explanation:

Management Groups (2):

One management group per tenant to organize the subscriptions within each tenant.

Blueprint Definitions (2):

Since Blueprints are tenant-scoped, you need one Blueprint definition per tenant (East and West).

Blueprint Assignments (4):

Assign the Blueprint to each subscription individually (Sub1, Sub2, Sub3, Sub4) because resource deployments (resource groups, web apps, Cosmos DB accounts) require subscription-level assignments. Even though you might use the same Blueprint definition within a tenant, you need separate assignments for each subscription to deploy the resources into them.

Question: 20 HOTSPOT

-

You need to design an Azure policy that will implement the following functionality:

➪ For new resources, assign tags and values that match the tags and values of the resource group to which the

resources are deployed.

☞ For existing resources, identify whether the tags and values match the tags and values of the resource group that contains the resources.

☞ For any non-compliant resources, trigger auto-generated remediation tasks to create missing tags and values. The solution must use the principle of least privilege.

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

NOTE: Each correct selection is worth one point.

Hot Area:

Answer Area

Azure Policy effect to use:

- Append
- EnforceOPAConstraint
- EnforceRegoPolicy
- Modify

Azure Active Directory (Azure AD) object and role-based access control (RBAC) role to use for the remediation tasks:

- A managed identity with the Contributor role
- A managed identity with the User Access Administrator role
- A service principal with the Contributor role
- A service principal with the User Access Administrator role

Answer:

Answer Area

Azure Policy effect to use:

- Append
- EnforceOPAConstraint
- EnforceRegoPolicy
- Modify

Azure Active Directory (Azure AD) object and role-based access control (RBAC) role to use for the remediation tasks:

- A managed identity with the Contributor role
- A managed identity with the User Access Administrator role
- A service principal with the Contributor role
- A service principal with the User Access Administrator role

Explanation:

Box 1: Modify -

Modify is used to add, update, or remove properties or tags on a subscription or resource during creation or update. A common example is updating tags on resources such as costCenter. Existing non-compliant resources can be remediated with a remediation task. A single Modify rule can have any number of operations. Policy assignments with effect set as Modify require a managed identity to do remediation.

Incorrect:

* The following effects are deprecated: EnforceOPAConstraint EnforceRegoPolicy
* Append is used to add additional fields to the requested resource during creation or update. A common example is specifying allowed IPs for a storage resource.

Append is intended for use with non-tag properties. While Append can add tags to a resource during a create or update request, it's recommended to use the
Modify effect for tags instead.

Box 2: A managed identity with the Contributor role

The managed identity needs to be granted the appropriate roles required for remediating resources to grant the managed identity.

Contributor - Can create and manage all types of Azure resources but can't grant access to others.

Incorrect:

User Access Administrator: lets you manage user access to Azure resources.

Reference:

https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects https://docs.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources https://docs.microsoft.com/en-us/azure/role-based-access-control/built-in-roles

Question: 21

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

Name	Type	Account Kind	Location
storage1	Azure Storage account	Storage (general purpose v1)	East US
storage2	Azure Storage account	StorageV2 (general purpose v2)	East US
Workspace1	Azure Log Analytics workspace	**Not applicable**	East US
Workspace2	Azure Log Analytics workspace	**Not applicable**	East US
Hub1	Azure event hub	**Not applicable**	East US

You create an Azure SQL database named DB1 that is hosted in the East US Azure region.
To DB1, you add a diagnostic setting named Settings1. Settings1 archive SQLInsights to storage1 and sends SQLInsights to Workspace1.
For each of the following statements, select Yes if the statement is true. Otherwise, select No.
Hot Area:

Answer Area

Statements	Yes	No
You can add a new diagnostic setting that archives SQLInsights logs to storage2.	○	○
You can add a new diagnostic setting that sends SQLInsights logs to Workspace2.	○	○
You can add a new diagnostic setting that sends SQLInsights logs to Hub1.	○	○

Answer:

Answer Area

Statements	Yes	No
You can add a new diagnostic setting that archives SQLInsights logs to storage2.	○	○
You can add a new diagnostic setting that sends SQLInsights logs to Workspace2.	○	○
You can add a new diagnostic setting that sends SQLInsights logs to Hub1.	○	○

Explanation:
Box 1: Yes -
A single diagnostic setting can define no more than one of each of the destinations. If you want to send data to more than one of a particular destination type (for example, two different Log Analytics workspaces), then

create multiple settings.
Each resource can have up to 5 diagnostic settings.
Note: This diagnostic telemetry can be streamed to one of the following Azure resources for analysis.

* Log Analytics workspace
* Azure Event Hubs
* Azure Storage

Box 2: Yes -

Box 3: Yes -

Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/diagnostic-settings https://docs.microsoft.com/en-us/azure/azure-sql/database/metrics-diagnostic-telemetry-logging-streaming-export-configure?tabs= azure-portal

Question: 22

You plan to deploy an Azure SQL database that will store Personally Identifiable Information (PII). You need to ensure that only privileged users can view the PII.
What should you include in the solution?

A. dynamic data masking
B. role-based access control (RBAC)
C. Data Discovery & Classification
D. Transparent Data Encryption (TDE)

Answer: A

Explanation:
Dynamic data masking limits sensitive data exposure by masking it to non-privileged users.

Dynamic data masking helps prevent unauthorized access to sensitive data by enabling customers to designate how much of the sensitive data to reveal with minimal impact on the application layer. It's a policy-based security feature that hides the sensitive data in the result set of a query over designated database fields, while the data in the database is not changed.

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/dynamic-data-masking-overview

Question: 23

You plan to deploy an app that will use an Azure Storage account.
You need to deploy the storage account. The storage account must meet the following requirements:☞ Store the data for multiple users.
☞ Encrypt each user's data by using a separate key.
☞ Encrypt all the data in the storage account by using customer-managed keys.
What should you deploy?

A. files in a premium file share storage account
B. blobs in a general purpose v2 storage account
C. blobs in an Azure Data Lake Storage Gen2 account
D. files in a general purpose v2 storage account

Answer: B

Explanation:

You can specify a customer-provided key on Blob storage operations. A client making a read or write request against Blob storage can include an encryption key on the request for granular control over how blob data is encrypted and decrypted.

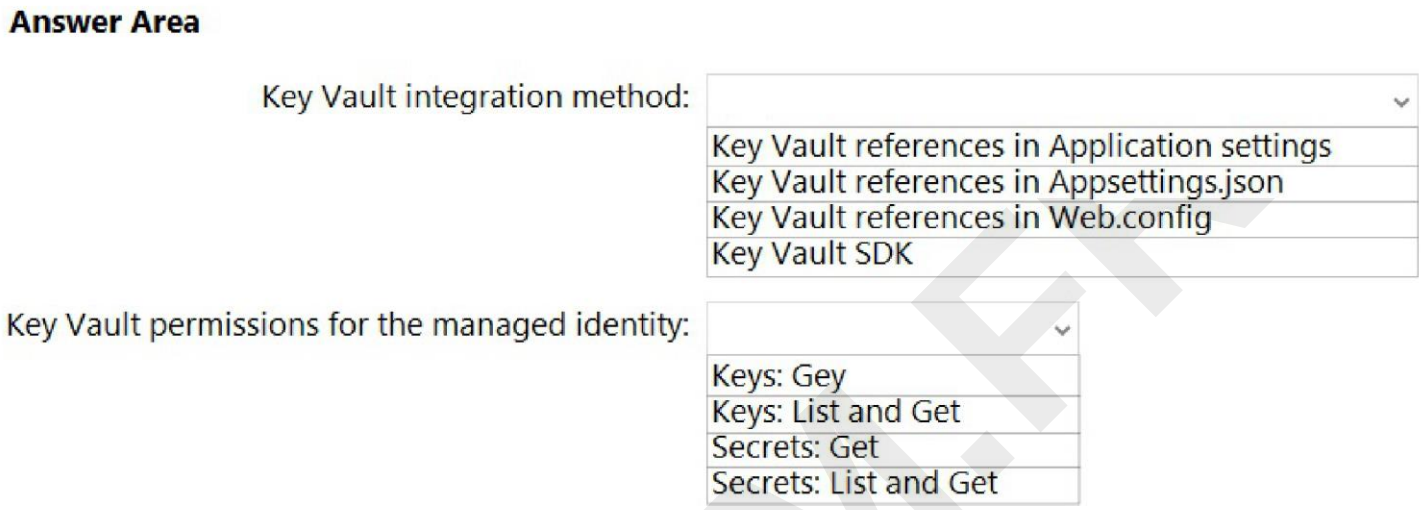
Reference:

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

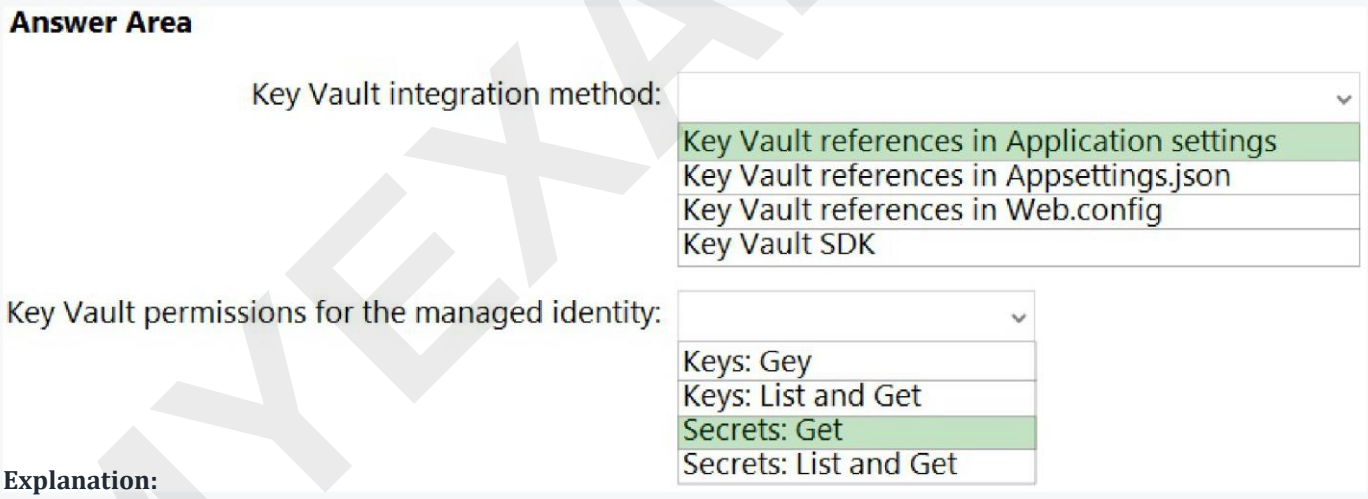
Question: 24

HOTSPOT -
You have an Azure App Service web app that uses a system-assigned managed identity.
You need to recommend a solution to store the settings of the web app as secrets in an Azure key vault. The solution must meet the following requirements:
- Minimize changes to the app code.
- Use the principle of least privilege.

What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.
Hot Area:



Answer:



Explanation:
Box 1: Key Vault references in Application settings
Source Application Settings from Key Vault.

Key Vault references can be used as values for Application Settings, allowing you to keep secrets in Key Vault instead of the site config. Application Settings are securely encrypted at rest, but if you need secret management capabilities, they should go into Key Vault.

To use a Key Vault reference for an app setting, set the reference as the value of the setting. Your app can reference the secret through its key as normal. No code changes are required.

Box 2: Secrets: Get -
In order to read secrets from Key Vault, you need to have a vault created and give your app permission to access it.

1. Create a key vault by following the Key Vault quickstart.
2. Create a managed identity for your application.
3. Key Vault references will use the app's system assigned identity by default, but you can specify a user-assigned identity.
4. Create an access policy in Key Vault for the application identity you created earlier. Enable the "Get" secret permission on this policy.

Reference:
https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references https://docs.microsoft.com/en-us/azure/app-service/app-service-key-vault-references

Question: 25

You plan to deploy an application named App1 that will run on five Azure virtual machines. Additional virtual machines will be deployed later to run App1.

You need to recommend a solution to meet the following requirements for the virtual machines that will run App1:☞ Ensure that the virtual machines can authenticate to Azure Active Directory (Azure AD) to gain access to an Azure key vault, Azure Logic Apps instances, and an Azure SQL database.

☞ Avoid assigning new roles and permissions for Azure services when you deploy additional virtual machines.☞ Avoid storing secrets and certificates on the virtual machines.

☞ Minimize administrative effort for managing identities.

Which type of identity should you include in the recommendation?

A. a system-assigned managed identity

B. a service principal that is configured to use a certificate

C. a service principal that is configured to use a client secret

D. a user-assigned managed identity

Answer: D

Explanation:

Managed identities provide an identity for applications to use when connecting to resources that support Azure Active Directory (Azure AD) authentication.

A user-assigned managed identity:
Can be shared.

The same user-assigned managed identity can be associated with more than one Azure resource.

Common usage:
Workloads that run on multiple resources and can share a single identity.

For example, a workload where multiple virtual machines need to access the same resource.

Incorrect:
Not A: A system-assigned managed identity can't be shared. It can only be associated with a single Azure resource.

Typical usage:
Workloads that are contained within a single Azure resource.

Workloads for which you need independent identities.

For example, an application that runs on a single virtual machine.

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

Question: 26

You have the resources shown in the following table:

Name	Type
AS1	Azure Synapse Analytics instance
CDB1	Azure Cosmos DB SQL API account

CDB1 hosts a container that stores continuously updated operational data.
You are designing a solution that will use AS1 to analyze the operational data daily.
You need to recommend a solution to analyze the data without affecting the performance of the operational data store.
What should you include in the recommendation?

A. Azure Cosmos DB change feed
B. Azure Data Factory with Azure Cosmos DB and Azure Synapse Analytics connectors
C. Azure Synapse Link for Azure Cosmos DB
D. Azure Synapse Analytics with PolyBase data loading

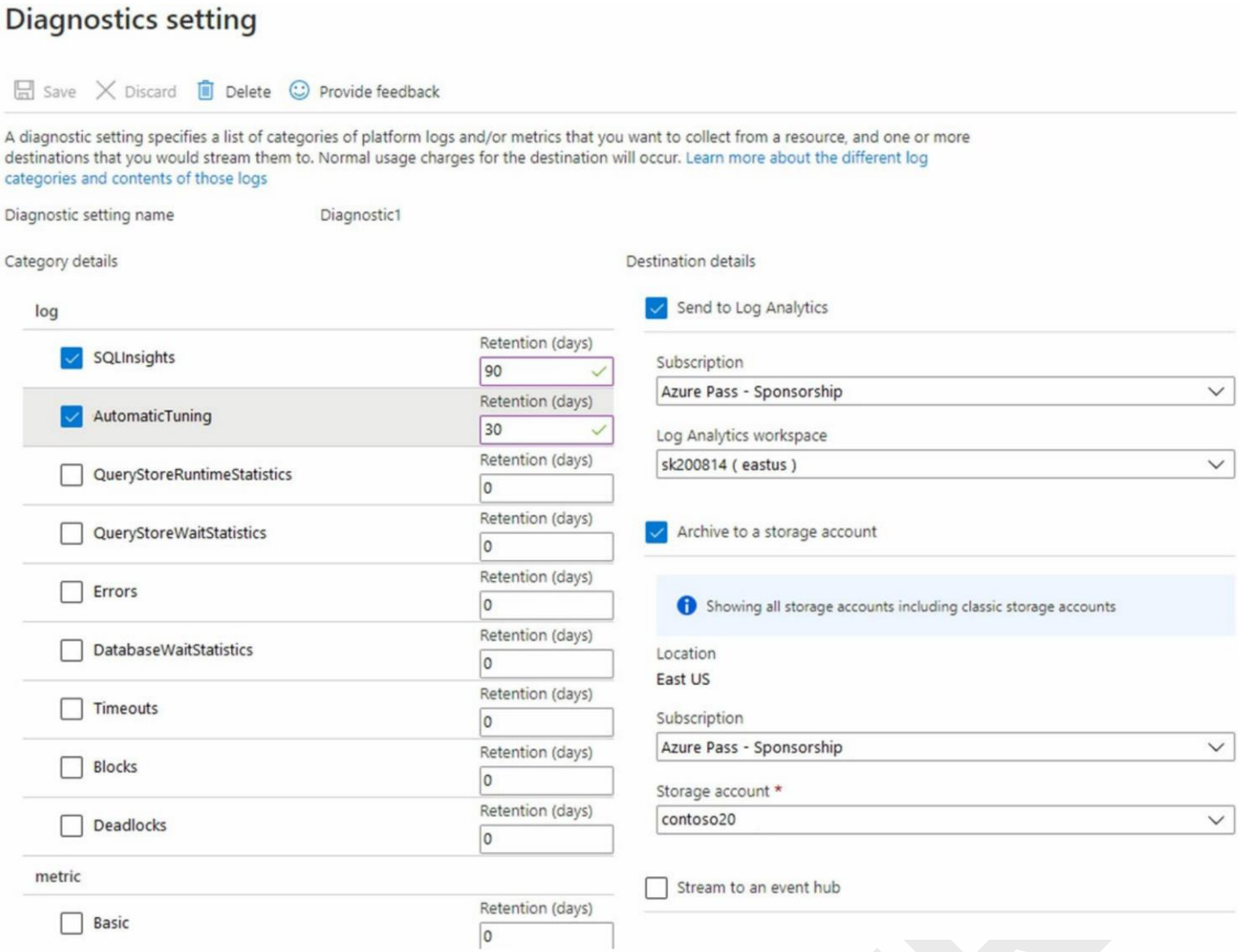
Answer: C

Explanation:
Azure Synapse Link for Azure Cosmos DB creates a tight integration between Azure Cosmos DB and Azure Synapse Analytics. It enables customers to run near real-time analytics over their operational data with full performance isolation from their transactional workloads and without an ETL pipeline.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/synapse-link-frequently-asked-questions

Question: 27

HOTSPOT -
You deploy several Azure SQL Database instances.
You plan to configure the Diagnostics settings on the databases as shown in the following exhibit.



Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

The amount of time that SQLInsights data will be stored in blob storage is **[answer choice]**.

- 30 days
- 90 days
- 730 days
- indefinite

The maximum amount of time that SQLInsights data can be stored in Azure Log Analytics is **[answer choice]**.

- 30 days
- 90 days
- 730 days
- indefinite

Answer:

Answer Area

The amount of time that SQLInsights data will be stored in blob storage is **[answer choice]**.

- 30 days
- 90 days
- 730 days
- indefinite

The maximum amount of time that SQLInsights data can be stored in Azure Log Analytics is **[answer choice]**.

- 30 days
- 90 days
- 730 days
- indefinite

Explanation:
Box 1: 90 days -
As per exhibit.

Box 2: 730 days -
How long is the data kept?
Raw data points (that is, items that you can query in Analytics and inspect in Search) are kept for up to 730 days.

Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/app/data-retention-privacy

Question: 28

You have an application that is used by 6,000 users to validate their vacation requests. The application manages its own credential store.
Users must enter a username and password to access the application. The application does NOT support identity providers.
You plan to upgrade the application to use single sign-on (SSO) authentication by using an Azure Active Directory (Azure AD) application registration.
Which SSO method should you use?

A. header-based
B. SAML
C. password-based
D. OpenID Connect

Answer: C

Explanation:
Password - On-premises applications can use a password-based method for SSO. This choice works when applications are configured for Application Proxy.

With password-based SSO, users sign in to the application with a username and password the first time they access it. After the first sign-on, Azure AD provides the username and password to the application. Password-based SSO enables secure application password storage and replay using a web browser extension or mobile app. This option uses the existing sign-in process provided by the application, enables an administrator to manage the passwords, and doesn't require the user to know the password.

Incorrect:
Choosing an SSO method depends on how the application is configured for authentication. Cloud applications can use federation-based options, such as OpenID
Connect, OAuth, and SAML.

Federation - When you set up SSO to work between multiple identity providers, it's called federation.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/manage-apps/what-is-single-sign-on

Question: 29

HOTSPOT -
You have an Azure subscription that contains a virtual network named VNET1 and 10 virtual machines. The virtual machines are connected to VNET1.
You need to design a solution to manage the virtual machines from the internet. The solution must meet the following requirements:
- Incoming connections to the virtual machines must be authenticated by using Azure Multi-Factor Authentication (MFA) before network connectivity is allowed.
- Incoming connections must use TLS and connect to TCP port 443.
- The solution must support RDP and SSH.

What should you include in the solution? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

To provide access to virtual machines on VNET1, use:
- Azure Bastion
- Just-in-time (JIT) VM access
- Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:
- An Azure Identity Governance access package
- A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-In
- A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

Answer:

Answer Area

To provide access to virtual machines on VNET1, use:
- Azure Bastion
- Just-in-time (JIT) VM access
- Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:
- An Azure Identity Governance access package
- A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-In
- A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

Explanation:

1. Azure Bastion.

2. Conditional Access Policy that has the cloud apps assignment set to Microsoft Azure management.

Azure bastion client access is authorized and authenticated when trying to log into the Azure portal. You can enable MFA on the Azure portal access by using the Conditional access policy for Microsoft Azure Management. We use this currently at work, it works very well!

Azure bastion proxies the web portal requests via https to the servers running in the VNET.

Question: 30

You are designing an Azure governance solution.
All Azure resources must be easily identifiable based on the following operational information: environment, owner, department and cost center.
You need to ensure that you can use the operational information when you generate reports for the Azure resources.
What should you include in the solution?

A. an Azure data catalog that uses the Azure REST API as a data source
B. an Azure management group that uses parent groups to create a hierarchy
C. an Azure policy that enforces tagging rules
D. Azure Active Directory (Azure AD) administrative units

Answer: C

Explanation:
You apply tags to your Azure resources, resource groups, and subscriptions to logically organize them into a taxonomy. Each tag consists of a name and a value pair.
You use Azure Policy to enforce tagging rules and conventions. By creating a policy, you avoid the scenario of resources being deployed to your subscription that don't have the expected tags for your organization.
Instead of manually applying tags or searching for resources that aren't compliant, you create a policy that automatically applies the needed tags during deployment.

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

Question: 31

A company named Contoso, Ltd. has an Azure Active Directory (Azure AD) tenant that is integrated with Microsoft 365 and an Azure subscription.
Contoso has an on-premises identity infrastructure. The infrastructure includes servers that run Active Directory Domain Services (AD DS) and Azure AD Connect.
Contoso has a partnership with a company named Fabrikam. Inc. Fabrikam has an Active Directory forest and a Microsoft 365 tenant. Fabrikam has the same on- premises identity infrastructure components as Contoso. A team of 10 developers from Fabrikam will work on an Azure solution that will be hosted in the Azure subscription of Contoso. The developers must be added to the Contributor role for a resource group in the Contoso subscription. You need to recommend a solution to ensure that Contoso can assign the role to the 10 Fabrikam developers. The solution must ensure that the Fabrikam developers use their existing credentials to access resources
What should you recommend?

A. In the Azure AD tenant of Contoso. create cloud-only user accounts for the Fabrikam developers.
B. Configure a forest trust between the on-premises Active Directory forests of Contoso and Fabrikam.
C. Configure an organization relationship between the Microsoft 365 tenants of Fabrikam and Contoso.
D. In the Azure AD tenant of Contoso, create guest accounts for the Fabnkam developers.

Answer: D

Explanation:

You can use the capabilities in Azure Active Directory B2B to collaborate with external guest users and you can use Azure RBAC to grant just the permissions that guest users need in your environment.

Incorrect:
Not B: Forest trust is used for internal security, not external access.

Reference:
https://docs.microsoft.com/en-us/azure/role-based-access-control/role-assignments-external-users

Question: 32 Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.
You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1. What should you recommend?

A. Configure the Azure AD provisioning service.
B. Enable Azure AD pass-through authentication and update the sign-in endpoint.
C. Use Azure AD entitlement management to govern external users.
D. Configure Azure AD join.

Answer: C

Explanation:
The app is single tenant authentication so users must be present in contoso directory.

https://docs.microsoft.com/en-us/azure/active-directory/develop/single-and-multi-tenant-apps With Azure AD B2B, external users authenticate to their home directory, but have a representation in your directory.

https://docs.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-external-users
A is wrong because its to automate provisioning to third party SaaS app.

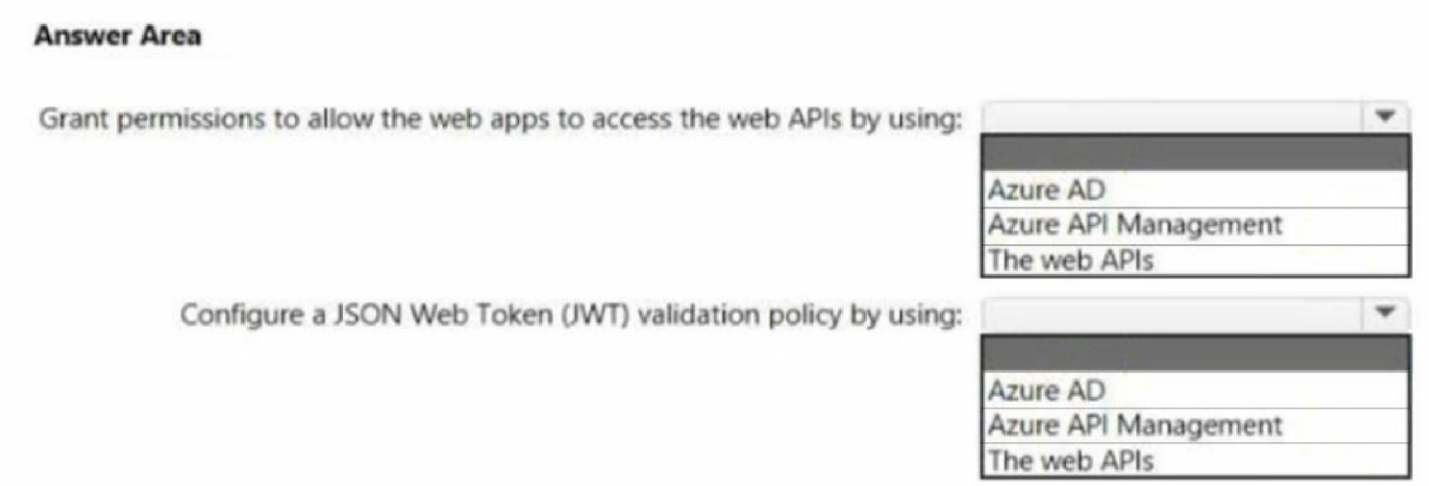
https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/how-provisioning-works?source=recommendations
B. is wrong because the application would need to switch to multi tenant..

https://docs.microsoft.com/en-us/azure/active-directory/develop/howto-convert-app-to-be-multi-tenant

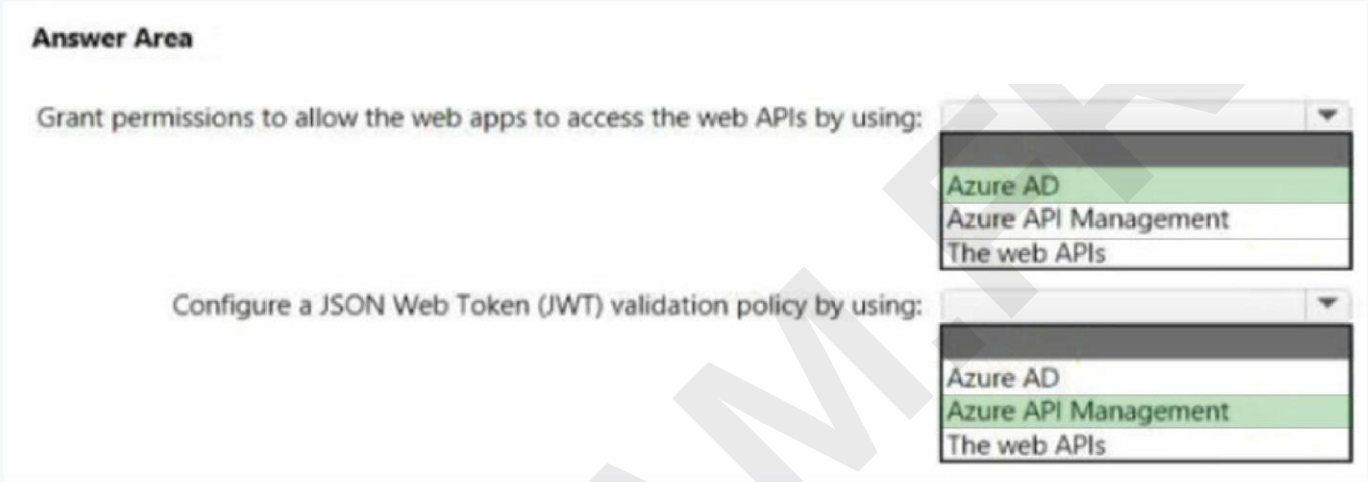
Question: 33 HOTSPOT -

Your company has 20 web APIs that were developed in-house.
The company is developing 10 web apps that will use the web APIs. The web apps and the APIs are registered in the company s Azure Active Directory (Azure
AD) tenant. The web APIs are published by using Azure API Management.
You need to recommend a solution to block unauthorized requests originating from the web apps from reaching the web APIs. The solution must meet the following requirements:
- Use Azure AD-generated claims.
- Minimize configuration and management effort.

What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.
Hot Area:



Answer:



Explanation:
Box 1: Azure AD -
Grant permissions in Azure AD.

Box 2: Azure API Management -
Configure a JWT validation policy to pre-authorize requests.
Pre-authorize requests in API Management with the Validate JWT policy, by validating the access tokens of each incoming request. If a request does not have a valid token, API Management blocks it.

Reference:
https://docs.microsoft.com/en-us/azure/api-management/api-management-howto-protect-backend-with-aad

Question: 34

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM)

resource deployments in your Azure subscription.
What should you include in the recommendation?

A. Azure Log Analytics
B. Azure Arc
C. Azure Analysis Services
D. Application Insights

Answer: A

Explanation:
The Activity log is a platform log in Azure that provides insight into subscription-level events. Activity log includes such information as when a resource is modified or when a virtual machine is started.
Activity log events are retained in Azure for 90 days and then deleted.
For more functionality, you should create a diagnostic setting to send the Activity log to one or more of these locations for the following reasons: to Azure Monitor Logs for more complex querying and alerting, and longer retention (up to two years) to Azure Event Hubs to forward outside of Azure to Azure Storage for cheaper, long-term archiving
Note: Azure Monitor builds on top of Log Analytics, the platform service that gathers log and metrics data from all your resources. The easiest way to think about it is that Azure Monitor is the marketing name, whereas Log Analytics is the technology that powers it.

Reference:
https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/activity-log

Question: 35

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure Active Directory (Azure AD) tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.
You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1. What should you recommend?

A. Configure the Azure AD provisioning service.
B. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).
C. Use Azure AD entitlement management to govern external users.
D. Configure Azure AD Identity Protection.

Answer: C

Explanation:
Entitlement management is an identity governance capability that enables organizations to manage identity and access lifecycle at scale by automating access request workflows, access assignments, reviews, and expiration.
Entitlement management allows delegated non-admins to create access packages that external users from other organizations can request access to. One and multi-stage approval workflows can be configured to evaluate requests, and provision users for time-limited access with recurring reviews.
Entitlement management enables policy-based provisioning and deprovisioning of external accounts.

Note: Access Packages -
An access package is the foundation of entitlement management. Access packages are groupings of policy-governed resources a user needs to collaborate on a project or do other tasks. For example, an access package might include: access to specific SharePoint sites. enterprise applications including your custom in-house and SaaS apps like Salesforce.

Microsoft Teams.

Microsoft 365 Groups.

Incorrect:
Not A: Automatic provisioning refers to creating user identities and roles in the cloud applications that users need access to. In addition to creating user identities, automatic provisioning includes the maintenance and removal of user identities as status or roles change.

Not B: Privileged Identity Management provides time-based and approval-based role activation to mitigate the risks of excessive, unnecessary, or misused access permissions on resources that you care about. Here are some of the key features of Privileged Identity Management:
Provide just-in-time privileged access to Azure AD and Azure resources
Assign time-bound access to resources using start and end dates
Etc.

Reference:
https://docs.microsoft.com/en-us/azure/active-directory/fundamentals/6-secure-access-entitlement-manag ment
https://docs.microsoft.com/en-us/azure/active-directory/app-provisioning/how-provisioning-works https
://docs.microsoft.com/en-us/azure/active-directory/privileged-identity-management/pim-configure

Question: 36

You are developing an app that will read activity logs for an Azure subscription by using Azure Functions.

You need to recommend an authentication solution for Azure Functions. The solution must minimize administrative effort.

What should you include in the recommendation?

A. an enterprise application in Azure AD
B. system-assigned managed identities
C. shared access signatures (SAS)
D. application registration in Azure AD

Answer: B

Explanation:

system-assigned managed identities reduce administrative efforts - B makes more sense

https://learn.microsoft.com/en-us/azure/azure-functions/security-concepts?tabs=v4

https://learn.microsoft.com/en-us/azure/app-service/overview-authentication-authorization

Question: 37

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

A. Configure Azure AD join.
B. Use Azure AD entitlement management to govern external users.
C. Enable Azure AD pass-through authentication and update the sign-in endpoint.
D. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

Answer: B

Explanation:

Use Azure AD entitlement management to govern external users.many times repeated

Question: 38

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

A. Configure Azure AD join.
B. Configure Azure AD Identity Protection.
C. Use Azure AD entitlement management to govern external users.
D. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

Answer: C

Explanation:

When you reach here, this question will no longer be challenging.

Question: 39 You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A. Azure Activity Log
B. Azure Arc
C. Azure Analysis Services
D. Azure Monitor metrics

Answer: A

Explanation:

Azure activity log contains required data.

Question: 40 HOTSPOT

-

You have an Azure subscription that contains an Azure key vault named KV1 and a virtual machine named VM1. VM1 runs Windows Server 2022: Azure Edition.

You plan to deploy an ASP.Net Core-based application named App1 to VM1.

You need to configure App1 to use a system-assigned managed identity to retrieve secrets from KV1. The solution must minimize development effort.

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

NOTE: Each correct selection is worth one point.

Answer Area

Configure App1 to use OAuth 2.0:

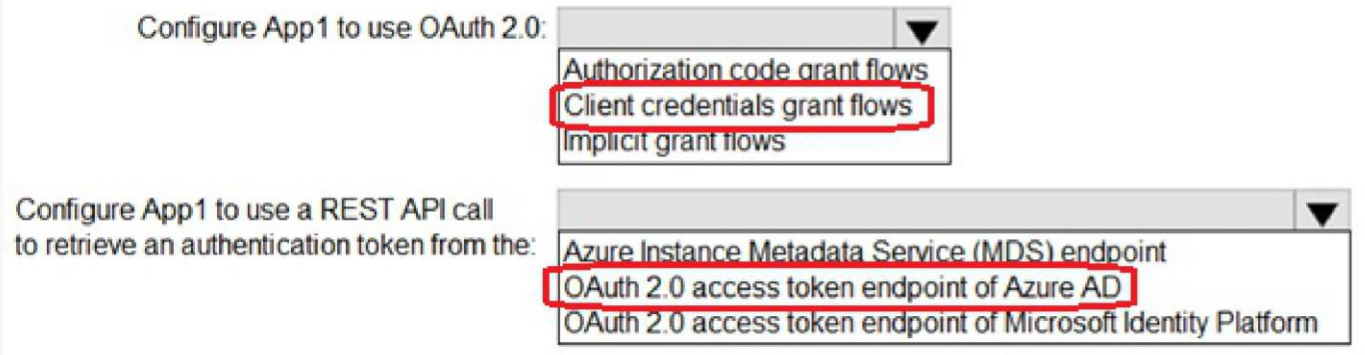
- Authorization code grant flows
- Client credentials grant flows
- Implicit grant flows

Configure App1 to use a REST API call to retrieve an authentication token from the:

- Azure Instance Metadata Service (MDS) endpoint
- OAuth 2.0 access token endpoint of Azure AD
- OAuth 2.0 access token endpoint of Microsoft Identity Platform

Answer:

Answer Area



Explanation:

Client Credentials grant flows

OAuth2 Access Token endpoint of azure ad

Question: 41 Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1. What should you recommend?

A. Configure Azure AD join.
B. Configure Azure AD Identity Protection.
C. Configure a Conditional Access policy.
D. Configure Supported account types in the application registration and update the sign-in endpoint.

Answer: D

Explanation:

Configure Supported account types in the application registration and update the sign-in endpoint.

Reference:

https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types

https://learn.microsoft.com/en-us/azure/active-directory/develop/howto-modify-supported-accounts

Question: 42

You have an Azure AD tenant named contoso.com that has a security group named Group1. Group1 is configured for assigned memberships. Group1 has 50 members, including 20 guest users.

You need to recommend a solution for evaluating the membership of Group1. The solution must meet the following requirements:

• The evaluation must be repeated automatically every three months.
• Every member must be able to report whether they need to be in Group1.
• Users who report that they do not need to be in Group1 must be removed from Group1 automatically.• Users who do not report whether they need to be in Group1 must be removed from Group1 automatically.

What should you include in the recommendation?

A. Implement Azure AD Identity Protection.
B. Change the Membership type of Group1 to Dynamic User.
C. Create an access review.
D. Implement Azure AD Privileged Identity Management (PIM).

Answer: C

Explanation:

Based on the requirements below:

The evaluation must be repeated automatically every three months.

• Every member must be able to report whether they need to be in Group1.

• Users who report that they do not need to be in Group1 must be removed from Group1 automatically.

• Users who do not report whether they need to be in Group1 must be removed from Group1 automatically.

The correct answer should be - C. Create an access. review.

https://learn.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview

Question: 43

HOTSPOT
-

You have an Azure subscription named Sub1 that is linked to an Azure AD tenant named contoso.com.

You plan to implement two ASP.NET Core apps named App1 and App2 that will be deployed to 100 virtual machines in Sub1. Users will sign in to App1 and App2 by using their contoso.com credentials.

App1 requires read permissions to access the calendar of the signed-in user. App2 requires write permissions to access the calendar of the signed-in user.

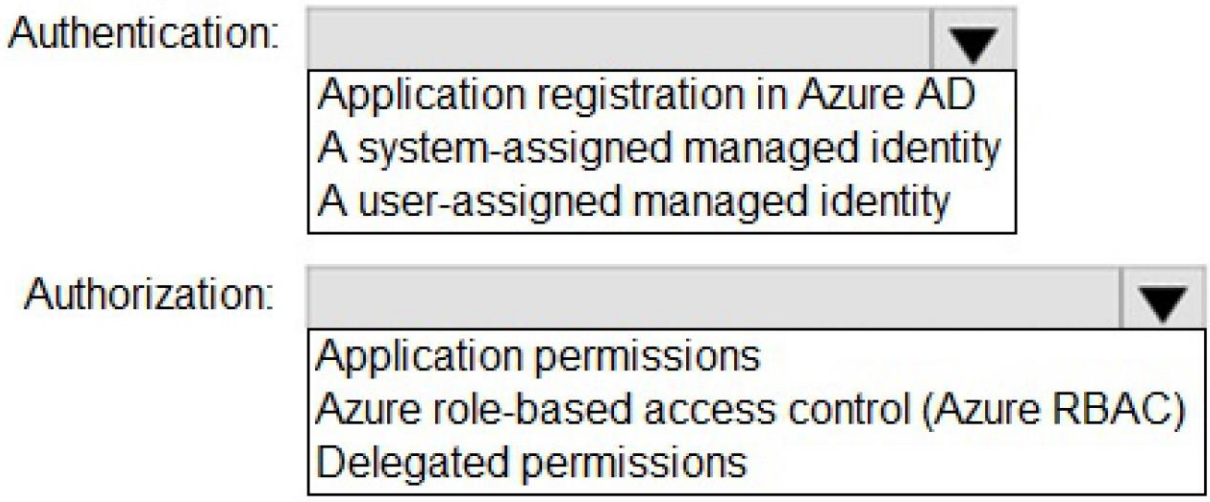
You need to recommend an authentication and authorization solution for the apps. The solution must meet the following requirements:

• Use the principle of least privilege.
• Minimize administrative effort.

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

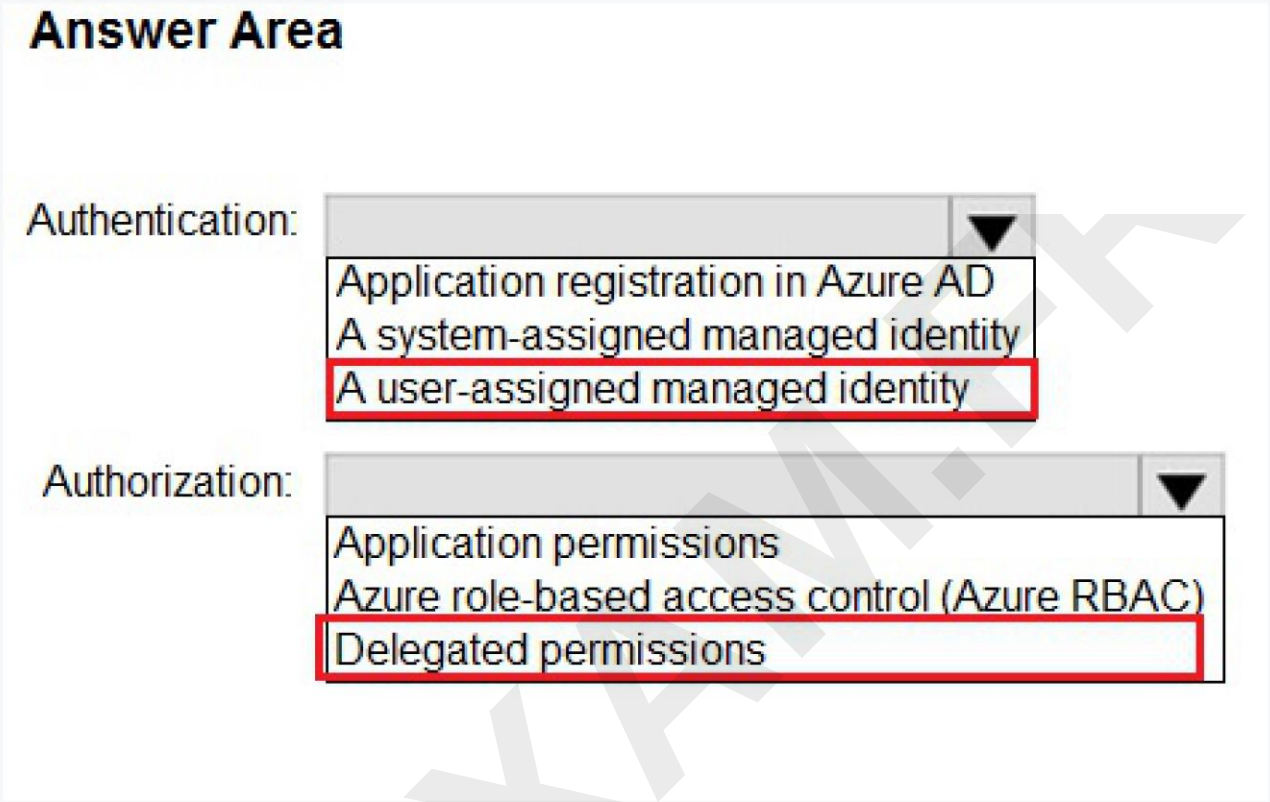
NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area



Explanation:

Box 1: A user-assigned managed identity

Box 2: Delegated permissions

The question states that we have to minimize the administrative effort and managed identities do just that.

Additionally we have 100 VMs so user-assigned managed identity can be used as it can be shared unlike system-assigned one. I researched a bit and found one helpful article which contains this sentence: "Previously, when we did not have managed identities, we created an application registration for the resource.

Using a secret or certificate to authenticate with Azure. This created a lot of overhead, as it required secret

management, key rotation, etc. With managed identities, Azure takes care of this for us."
although app registration could be used, it wouldn't reduce admin effort as much as Managed Identity.
https://adatum.no/azure/azure-active-directory/azure-application-registrations-enterprise-app-managed-identities

Question: 44 Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1. What should you recommend?

A. Enable Azure AD pass-through authentication and update the sign-in endpoint.
B. Use Azure AD entitlement management to govern external users.
C. Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM). D. Configure Azure AD Identity Protection.

Answer: B

Explanation:
https://learn.microsoft.com/en-us/azure/active-directory/governance/entitlement-management-overview#what-can-i-do-with-entitlement-management
Here are some of capabilities of entitlement management:
- Select connected organizations whose users can request access. When a user who isn't yet in your directory requests access, and is approved, they're automatically invited into your directory and assigned access. When their access expires, if they have no other access package assignments, their B2B account in your directory can be automatically removed.

Question: 45 Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1. What should you recommend?

A. Configure the Azure AD provisioning service.

B. Enable Azure AD pass-through authentication and update the sign-in endpoint.

C. Configure Supported account types in the application registration and update the sign-in endpoint. D. Configure Azure AD join.

Answer: C

Explanation:

Reference:

https://learn.microsoft.com/en-us/security/zero-trust/develop/identity-supported-account-types

Question: 46 HOTSPOT

-

You have an Azure AD tenant that contains a management group named MG1.

You have the Azure subscriptions shown in the following table.

Name	Management group
Sub1	MG1
Sub2	MG2
Sub3	Tenant Root Group

The subscriptions contain the resource groups shown in the following table.

Name	Subscription
RG1	Sub1
RG2	Sub2
RG3	Sub3

The subscription contains the Azure AD security groups shown in the following table.

Name	Member of
Group1	Group3
Group2	Group3
Group3	*None*

The subscription contains the user accounts shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group1, Group2

You perform the following actions:

Assign User3 the Contributor role for Sub1.

Assign Group1 the Virtual Machine Contributor role for MG1.
Assign Group3 the Contributor role for the Tenant Root Group.

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

Each correct selection is worth one point.

Answer Area

Statements	Yes	No
User1 can create a new virtual machine in RG1.	○	○
User2 can grant permissions to Group2.	○	○
User3 can create a storage account in RG2.	○	○

Answer:

Answer Area

Statements	Yes	No
User1 can create a new virtual machine in RG1.	○	○
User2 can grant permissions to Group2.	○	○
User3 can create a storage account in RG2.	○	○

Explanation:

Since Group 1 is assigned VM contributor to MG1, it will be able to create a new VM in RG1.User 2 is not able to grant permission to Group 2 because it is just a member with contributor role.Since Group 3 has Contributor role for the Tenant Root Group, User3 can create storage account in RG2

Question: 47

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

A.Configure Azure AD Identity Protection.
B.Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).
C.Configure Supported account types in the application registration and update the sign-in endpoint.
D.Configure a Conditional Access policy.

Answer: C

Explanation:

Configure Supported account types in the application registration and update the sign-in endpoint.

Question: 48

Your company has the divisions shown in the following table.

Division	Azure subscription	Azure AD tenant
East	Sub1	Contoso.com
West	Sub2	Fabrikam.com

Sub1 contains an Azure App Service web app named App1. App1 uses Azure AD for single-tenant user authentication. Users from contoso.com can authenticate to App1.

You need to recommend a solution to enable users in the fabrikam.com tenant to authenticate to App1.

What should you recommend?

A.Use Azure AD entitlement management to govern external users.
B.Enable Azure AD pass-through authentication and update the sign-in endpoint.
C.Configure a Conditional Access policy.
D.Configure assignments for the fabrikam.com users by using Azure AD Privileged Identity Management (PIM).

Answer: A

Explanation:

This has been repeated many times and has two answers based on the provided possibilities: Its either Use Azure AD entitlement management to govern external usersOrConfigure Supported account types in the application registration and update the sign-in endpointBoth answers will lead you to the same solution.

Question: 49

You have an Azure subscription that contains 1,000 resources.

You need to generate compliance reports for the subscription. The solution must ensure that the resources can be grouped by department.

What should you use to organize the resources?

A.application groups and quotas
B.Azure Policy and tags
C.administrative units and Azure Lighthouse
D.resource groups and role assignments

Answer: B

Explanation:

Azure Policy and tags

Question: 50

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A.Azure Arc
B.Azure Monitor metrics
C.Azure Advisor
D.Azure Log Analytics

Answer: D

Explanation:

Azure Log Analytics

Question: 51 You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A.Azure Monitor action groups
B.Azure Arc
C.Azure Monitor metrics
D.Azure Activity Log

Answer: D

Explanation:

Azure Activity Log is a correct answer.

Question: 52 DRAG DROP

-

You have an Azure AD tenant that contains an administrative unit named MarketingAU. MarketingAU contains 100 users.

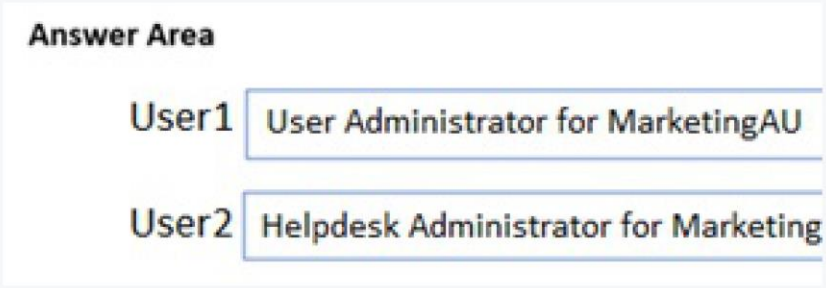
You create two users named User1 and User2.

You need to ensure that the users can perform the following actions in MarketingAU:•User1 must be able to create user accounts.
•User2 must be able to reset user passwords.

Which role should you assign to each user? To answer, drag the appropriate roles to the correct users. Each role 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.

Answer:



Question: 53

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A.Azure Arc
B.Azure Log Analytics
C.Application insights
D.Azure Monitor action groups

Answer: B

Explanation:

Azure Log Analytics

Question: 54

HOTSPOT
-

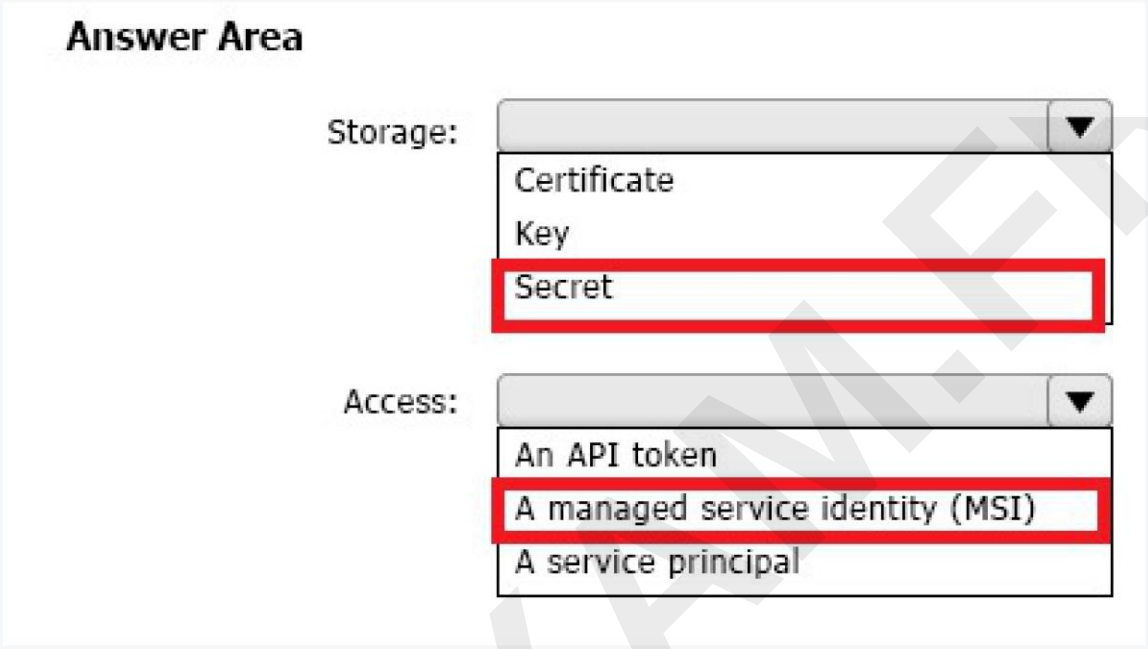
You are designing an app that will be hosted on Azure virtual machines that run Ubuntu. The app will use a third-party email service to send email messages to users. The third-party email service requires that the app authenticate by using an API key.

You need to recommend an Azure Key Vault solution for storing and accessing the API key. The solution must minimize administrative effort.

What should you recommend using to store and access the key? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer:



Explanation:

1. Storage: c. Secret. API keys are typically stored as secrets in Azure Key Vault. The key vault can store and manage secrets like API keys, passwords, or database connection strings.2. Access: b. A managed service identity (MSI). A managed service identity (MSI) is used to give your VM access to the key vault. The advantage of using MSI is that you do not have to manage credentials yourself. Azure takes care of rolling the credentials and ensuring their lifecycle. The application running on your VM can use its managed service identity to get a token to Azure AD, and then use that token to authenticate to Azure Key Vault.

Question: 55

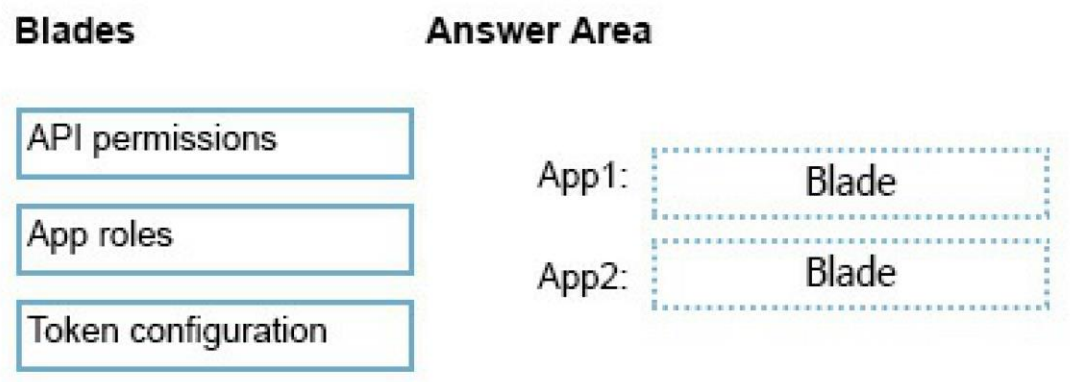
DRAG DROP
-

You have two app registrations named App1 and App2 in Azure AD. App1 supports role-based access control (RBAC) and includes a role named Writer.

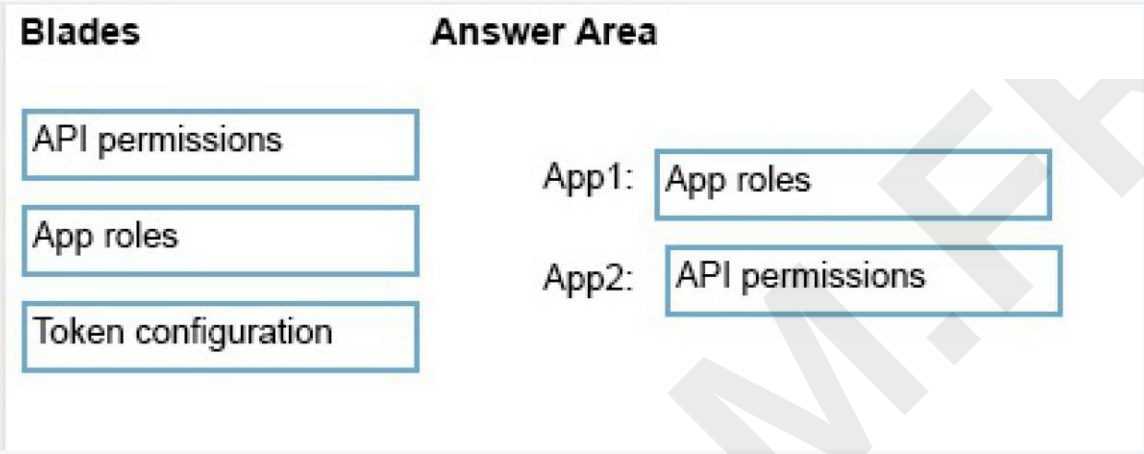
You need to ensure that when App2 authenticates to access App1, the tokens issued by Azure AD include the Writer role claim.

Which blade should you use to modify each app registration? To answer, drag the appropriate blades to the correct app registrations. Each blade 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.



Answer:



Explanation:

App1: App Roleshttps://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps#app-roles-uiApp2: Api Permissionshttps://learn.microsoft.com/en-us/azure/active-directory/develop/howto-add-app-roles-in-apps#assign-app-roles-to-applications

Question: 56

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A.Application Insights
B.Azure Arc
C.Azure Log Analytics

D.Azure Monitor metrics

Answer: C

Explanation:

Azure Log Analytics

Question: 57

You have an Azure subscription.

You plan to deploy a monitoring solution that will include the following:

•Azure Monitor Network Insights
•Application Insights
•Microsoft Sentinel
•VM insights

The monitoring solution will be managed by a single team.

What is the minimum number of Azure Monitor workspaces required?

A.1
B.2
C.3
D.4

Answer: A

Explanation:
1. A. 1You only need a single Azure Monitor Log Analytics workspace for all these monitoring solutions. Here's why:- Azure Monitor Network Insights, Application Insights, Microsoft Sentinel, and VM insights, all of these components can send their data to a Log Analytics workspace. - The workspace is a unique environment for Azure Monitor log data. Each workspace has its own data repository and configuration, and data sources and solutions are configured to store their data in a workspace.Therefore, a single Azure Monitor Log Analytics workspace can be utilized to collect and analyze data from all the components of the monitoring solution. This will also enable a unified management and analysis of the collected data.

Question: 58

You need to recommend a solution to generate a monthly report of all the new Azure Resource Manager (ARM) resource deployments in your Azure subscription.

What should you include in the recommendation?

A.Application Insights
B.Azure Analysis Services
C.Azure Advisor
D.Azure Activity Log

Answer: C

Explanation:

1. Answer C
2. Insanity, is doing the same thing over and over again expecting different results ... in this case I think I've gone insane.

Question: 59

HOTSPOT
-

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
-

Fabrikam, Inc. is an engineering company that has offices throughout Europe. The company has a main office in London and three branch offices in Amsterdam, Berlin, and Rome.

Existing Environment: Active Directory Environment

The network contains two Active Directory forests named corp.fabrikam.com and rd.fabrikam.com. There are no trust relationships between the forests.

Corp.fabrikam.com is a production forest that contains identities used for internal user and computer authentication.

Rd.fabrikam.com is used by the research and development (R&D) department only. The R&D department is restricted to using on-premises resources only.

Existing Environment: Network Infrastructure

Each office contains at least one domain controller from the corp.fabrikam.com domain. The main office contains all the domain controllers for the rd.fabrikam.com forest.

All the offices have a high-speed connection to the internet.

An existing application named WebApp1 is hosted in the data center of the London office. WebApp1 is used by customers to place and track orders. WebApp1 has a web tier that uses Microsoft Internet Information Services (IIS) and a database tier that runs Microsoft SQL Server 2016. The web tier and the database tier are deployed to virtual machines that run on Hyper-V.

The IT department currently uses a separate Hyper-V environment to test updates to WebApp1.

Fabrikam purchases all Microsoft licenses through a Microsoft Enterprise Agreement that includes Software Assurance.

Existing Environment: Problem Statements

The use of WebApp1 is unpredictable. At peak times, users often report delays. At other times, many resources for WebApp1 are underutilized.

Requirements: Planned Changes
-

Fabrikam plans to move most of its production workloads to Azure during the next few years, including virtual machines that rely on Active Directory for authentication.

As one of its first projects, the company plans to establish a hybrid identity model, facilitating an upcoming Microsoft 365 deployment.

All R&D operations will remain on-premises.

Fabrikam plans to migrate the production and test instances of WebApp1 to Azure.

Requirements: Technical Requirements

Fabrikam identifies the following technical requirements:

•Website content must be easily updated from a single point.
•User input must be minimized when provisioning new web app instances.
•Whenever possible, existing on-premises licenses must be used to reduce cost.
•Users must always authenticate by using their corp.fabrikam.com UPN identity.
•Any new deployments to Azure must be redundant in case an Azure region fails.
•Whenever possible, solutions must be deployed to Azure by using the Standard pricing tier of Azure App Service.
•An email distribution group named IT Support must be notified of any issues relating to the directory synchronization services.
•In the event that a link fails between Azure and the on-premises network, ensure that the virtual machines hosted in Azure can authenticate to Active Directory.
•Directory synchronization between Azure Active Directory (Azure AD) and corp.fabrikam.com must not be affected by a link failure between Azure and the on-premises network.

Requirements: Database Requirements

Fabrikam identifies the following database requirements:

•Database metrics for the production instance of WebApp1 must be available for analysis so that database administrators can optimize the performance settings.
•To avoid disrupting customer access, database downtime must be minimized when databases are migrated.
•Database backups must be retained for a minimum of seven years to meet compliance requirements.

Requirements: Security Requirements

Fabrikam identifies the following security requirements:

•Company information including policies, templates, and data must be inaccessible to anyone outside the company.•Users on the on-premises network must be able to authenticate to corp.fabrikam.com if an internet link fails.•Administrators must be able authenticate to the Azure portal by using their corp.fabrikam.com credentials.
•All administrative access to the Azure portal must be secured by using multi-factor authentication (MFA).•The testing of WebApp1 updates must not be visible to anyone outside the company.

To meet the authentication requirements of Fabrikam, what should you include in the solution? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

Answer:

Answer Area

Minimum number of Azure AD tenants:

0
1
2
3
4

Minimum number of conditional access policies to create:

0
1
2
3
4

Explanation:

1

2

Question: 60

You have an Azure subscription that contains 10 web apps. The apps are integrated with Azure AD and are accessed by users on different project teams.

The users frequently move between projects.

You need to recommend an access management solution for the web apps. The solution must meet the following requirements:

•The users must only have access to the app of the project to which they are assigned currently.
•Project managers must verify which users have access to their project's app and remove users that are no longer assigned to their project.
•Once every 30 days, the project managers must be prompted automatically to verify which users are assigned to their projects.

What should you include in the recommendation?

A.Azure AD Identity Protection
B.Microsoft Defender for Identity
C.Microsoft Entra Permissions Management
D.Azure AD Identity Governance

Answer: D

Explanation:

Azure AD Identity Governance in the recommendation. Azure AD Identity Governance provides a comprehensive solution for managing identity and access lifecycle, ensuring that access is granted in line with the principle of least privilege and is revoked when no longer needed1. It allows project managers to verify which users have access to their project's app and remove users that are no longer assigned to their project.

Question: 61

HOTSPOT
-

You have an Azure subscription that contains 50 Azure SQL databases.

You create an Azure Resource Manager (ARM) template named Template1 that enables Transparent Data Encryption (TDE).

You need to create an Azure Policy definition named Policy1 that will use Template1 to enable TDE for any noncompliant Azure SQL databases.

How should you configure Policy1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Set available effects to:
- DeployIfNotExists
- EnforceRegoPolicy
- Modify

Include in the definition:
- The identity required to perform the remediation task
- The scopes of the policy assignments
- The role-based access control (RBAC) roles required to perform the remediation task

Answer:

Answer Area

Set available effects to: DeployIfNotExists

Include in the definition: The identity required to perform the remediation task

Question: 62

You have an Azure subscription. The subscription contains a tiered app named App1 that is distributed across multiple containers hosted in Azure Container Instances.

You need to deploy an Azure Monitor monitoring solution for App. The solution must meet the following requirements:

•Support using synthetic transaction monitoring to monitor traffic between the App1 components.•Minimize development effort.

What should you include in the solution?

A.Network insights
B.Application Insights
C.Container insights
D.Log Analytics Workspace insights

Answer: B

Explanation:

Correct answer is B:Application Insights

Question: 63

HOTSPOT
-

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

Name	Type	Description
App1	Azure App Service app	*None*
Workspace1	Log Analytics workspace	Configured to use a pay-as-you-go pricing tier
App1Logs	Log Analytics table	Hosted in Workspace1 Configured to use the Analytics Logs data plan

Log files from App1 are registered to App1Logs. An average of 120 GB of log data is ingested per day.

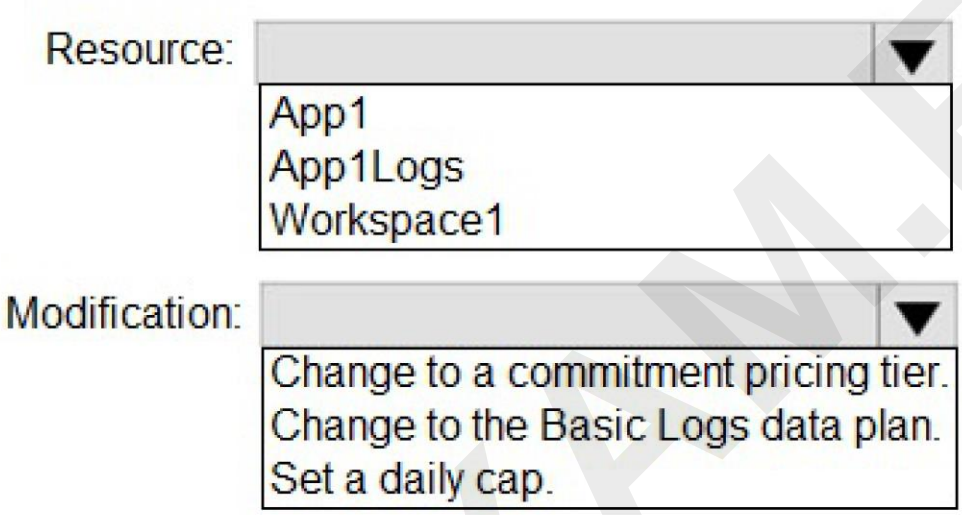
You configure an Azure Monitor alert that will be triggered if the App1 logs contain error messages.

You need to minimize the Log Analytics costs associated with App1. The solution must meet the following requirements:
•Ensure that all the log files from App1 are ingested to App1Logs.
•Minimize the impact on the Azure Monitor alert.

Which resource should you modify, and which modification should you perform? To answer, select the appropriate options in the answer area.

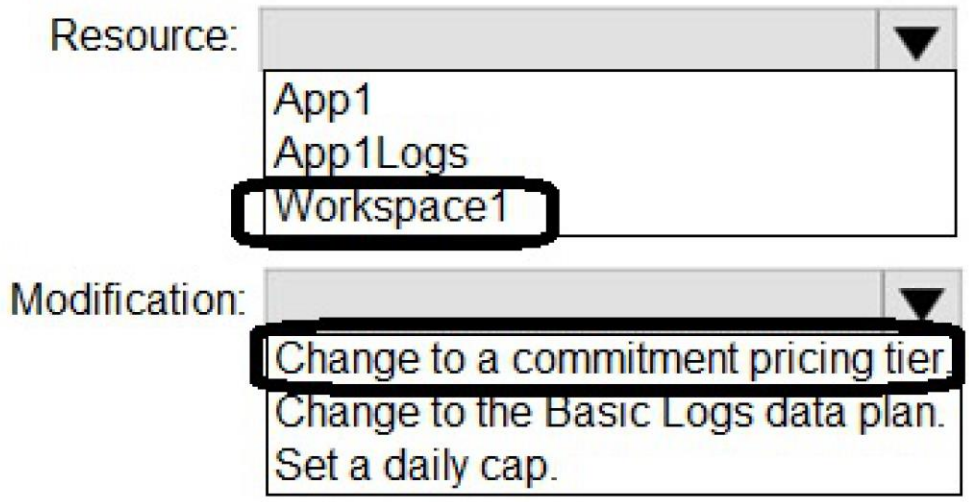
NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area



Explanation:

Workspace 1

Change to a commitment pricing tier.

Question: 64

You have 12 Azure subscriptions and three projects. Each project uses resources across multiple subscriptions.

You need to use Microsoft Cost Management to monitor costs on a per project basis. The solution must minimize administrative effort.

Which two components should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

A.budgets
B.resource tags
C.custom role-based access control (RBAC) roles
D.management groups
E.Azure boards

Answer: AB

Explanation:
1. Resource Tags (B): Tagging is an easy way to classify assets. That metadata can be used to classify the asset based on various data points. When tags are used to classify assets as part of a cost management effort, companies often need tags such as project. Azure Cost Management + Billing can use these tags to create different views of cost data.Budgets (A): Budgets in Azure Cost Management + Billing help you plan for and drive organizational accountability. With budgets, you can account for the Azure services you consume or subscribe to during a specific period, and proactively notify teams about how they're tracking against their spending targets.
2. To monitor costs on a per project basis using Microsoft Cost Management, you should include the following

components in your solution:A. Budgets: Azure Cost Management + Billing allows you to create and manage budgets, which can help you monitor costs proactively1.B. Resource Tags: Tagging is an easy way to classify assets. Tagging associates metadata to an asset, which can be used to classify the asset based on various data points. When tags are used to classify assets as part of a cost management effort, companies often need tags such as project, business unit, department, billing code, geography, environment, and workload or application categorization2. Azure Cost Management + Billing can use these tags to create different views of cost data2.So the correct answers are A. budgets and B. resource tags.

Question: 65 HOTSPOT

-

You have an Azure subscription that contains multiple storage accounts.

You assign Azure Policy definitions to the storage accounts.

You need to recommend a solution to meet the following requirements:•Trigger on-demand Azure Policy compliance scans.
•Raise Azure Monitor non-compliance alerts by querying logs collected by Log Analytics.

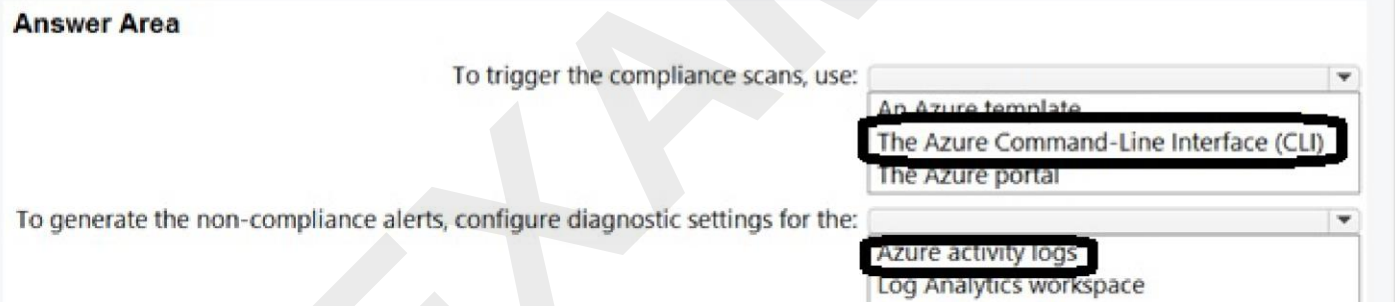
What should you recommend for each requirement? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

To trigger the compliance scans, use:
- An Azure template
- The Azure Command-Line Interface (CLI)
- The Azure portal

To generate the non-compliance alerts, configure diagnostic settings for the:
- Azure activity logs
- Log Analytics workspace
- Storage accounts

Answer:



Question: 66

HOTSPOT

-

You have an Azure subscription.

You plan to deploy five storage accounts that will store block blobs and five storage accounts that will host file

shares. The file shares will be accessed by using the SMB protocol.

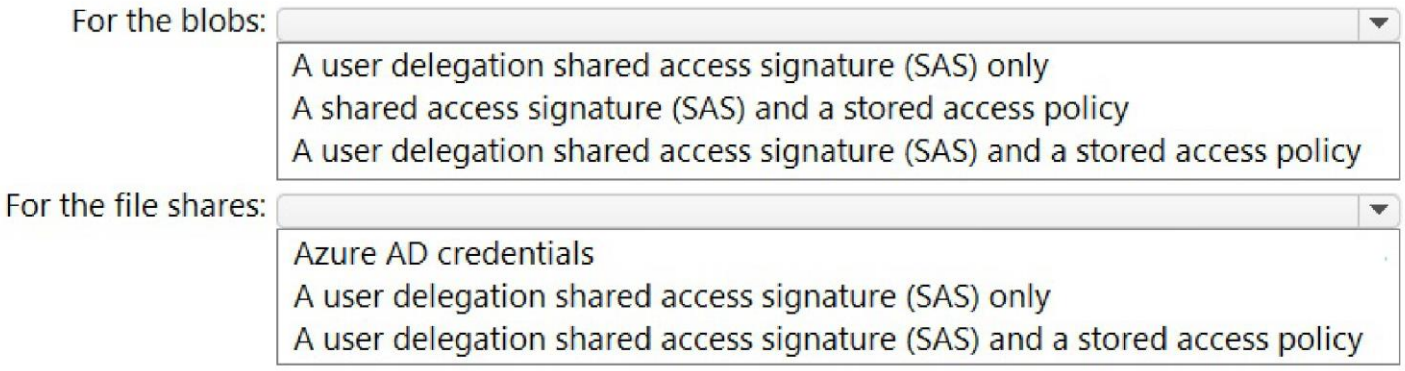
You need to recommend an access authorization solution for the storage accounts. The solution must meet the following requirements:

•Maximize security.
•Prevent the use of shared keys.
•Whenever possible, support time-limited access.

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

NOTE: Each correct selection is worth one point.

Answer Area



Answer:

Answer Area

Explanation:

1. For the blobs - a user delegation SAS only To maximize security it's better to use a user delegation SAS:From docs: As a security best practice, we recommend that you use Azure AD credentials when possible, rather than the account key, which can be more easily compromised. When your application design requires shared access signatures, use Azure AD credentials to create a user delegation SAS to help ensure better security. This also prevents using shared keys & supports time-limited access. Note: user delegation SAS do not support stored access policies.

2. For the file shares - Azure AD credentials It fulfills the requirement to maximize security (the most secure way recommended by Microsoft), but doesn't support time-limited access, which is optional and has lower priority than security.

Reference:

https://learn.microsoft.com/en-us/rest/api/storageservices/create-user-delegation-sas.

Question: 67 HOTSPOT

-

You have an Azure subscription. The subscription contains 100 virtual machines that run Windows Server 2022 and have the Azure Monitor Agent installed.

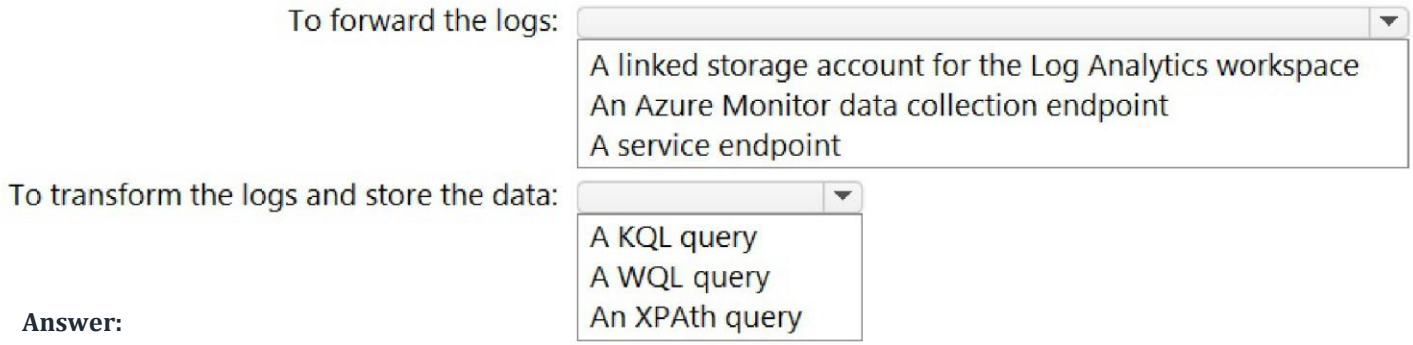
You need to recommend a solution that meets the following requirements:

•Forwards JSON-formatted logs from the virtual machines to a Log Analytics workspace

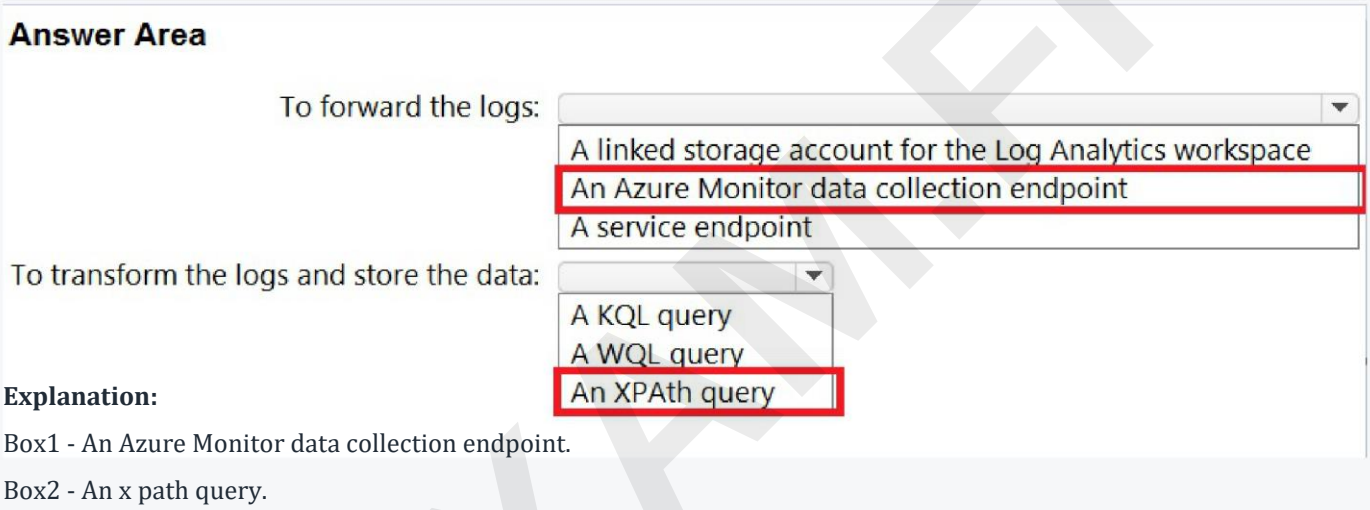
•Transforms the logs and stores the data in a table in the Log Analytics workspace

What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area



Answer:



Explanation:

Box1 - An Azure Monitor data collection endpoint.

Box2 - An x path query.

Question: 68 HOTSPOT

-

You have five Azure subscriptions. Each subscription is linked to a separate Azure AD tenant and contains virtual machines that run Windows Server 2022.

You plan to collect Windows security events from the virtual machines and send them to a single Log Analytics workspace.

You need to recommend a solution that meets the following requirements:

•Collects event logs from multiple subscriptions

•Supports the use of data collection rules (DCRs) to define which events to collect

What should you recommend for each requirement? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

To collect the event logs:

- Azure Event Grid
- Azure Lighthouse
- Azure Purview

To support the DCRs:

- The Log Analytics agent
- The Azure Monitor agent
- The Azure Connected Machine agent

Answer:

Answer Area

To collect the event logs:

- Azure Event Grid
- **Azure Lighthouse**
- Azure Purview

To support the DCRs:

- **The Log Analytics agent**
- The Azure Monitor agent
- The Azure Connected Machine agent

Explanation:

Box 1: Azure Lighthouse.

To send data across tenants, you must first enable Azure Lighthouse.

Box 2: The Log Analytics agent.

Reference:

https://learn.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview#install-the-agent-and-configure-data-collection

Question: 69

You have 100 servers that run Windows Server 2012 R2 and host Microsoft SQL Server 2014 instances. The instances host databases that have the following characteristics:
☞ Stored procedures are implemented by using CLR.
☞ The largest database is currently 3 TB. None of the databases will ever exceed 4 TB.
You plan to move all the data from SQL Server to Azure.
You need to recommend a service to host the databases. The solution must meet the following requirements:☞ Whenever possible, minimize management overhead for the migrated databases.
☞ Ensure that users can authenticate by using Azure Active Directory (Azure AD) credentials.
☞ Minimize the number of database changes required to facilitate the migration.
What should you include in the recommendation?

A. Azure SQL Database elastic pools
B. Azure SQL Managed Instance
C. Azure SQL Database single databases
D. SQL Server 2016 on Azure virtual machines

Answer: B

Explanation:
SQL Managed Instance allows existing SQL Server customers to lift and shift their on-premises applications to the cloud with minimal application and database changes. At the same time, SQL Managed Instance preserves all PaaS capabilities (automatic patching and version updates, automated backups, high availability) that drastically reduce management overhead and TCO.

Reference:
https://docs.microsoft.com/en-us/azure/sql-database/sql-database-managed-instance

Question: 70

You have an Azure subscription that contains an Azure Blob Storage account named store1.
You have an on-premises file server named Server1 that runs Windows Server 2016. Server1 stores 500 GB of company files.
You need to store a copy of the company files from Server1 in store1.
Which two possible Azure services achieve this goal? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point.

A. an Azure Logic Apps integration account
B. an Azure Import/Export job
C. Azure Data Factory
D. an Azure Analysis services On-premises data gateway
E. an Azure Batch account

Answer: BC

Explanation:

B: You can use the Azure Import/Export service to securely export large amounts of data from Azure Blob storage. The service requires you to ship empty drives to the Azure datacenter. The service exports data from your storage account to the drives and then ships the drives back.

C: Big data requires a service that can orchestrate and operationalize processes to refine these enormous stores of raw data into actionable business insights.

Azure Data Factory is a managed cloud service that's built for these complex hybrid extract-transform-load (ETL), extract-load-transform (ELT), and data integration projects.

Reference:
https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-from-blobs https://docs.microsoft.com/en-us/azure/data-factory/introduction

Question: 71

You have an Azure subscription that contains two applications named App1 and App2. App1 is a sales processing application. When a transaction in App1 requires shipping, a message is added to an Azure Storage account queue, and then App2 listens to the queue for relevant transactions.
In the future, additional applications will be added that will process some of the shipping requests based on the specific details of the transactions.
You need to recommend a replacement for the storage account queue to ensure that each additional application will be able to read the relevant transactions.
What should you recommend?

A. one Azure Data Factory pipeline
B. multiple storage account queues
C. one Azure Service Bus queue
D. one Azure Service Bus topic

Answer: D

Explanation:
A queue allows processing of a message by a single consumer. In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern. It's useful for scaling to large numbers of recipients. Each published message is made available to each subscription registered with the topic. Publisher sends a message to a topic and one or more subscribers receive a copy of the message, depending on filter rules set on these subscriptions.

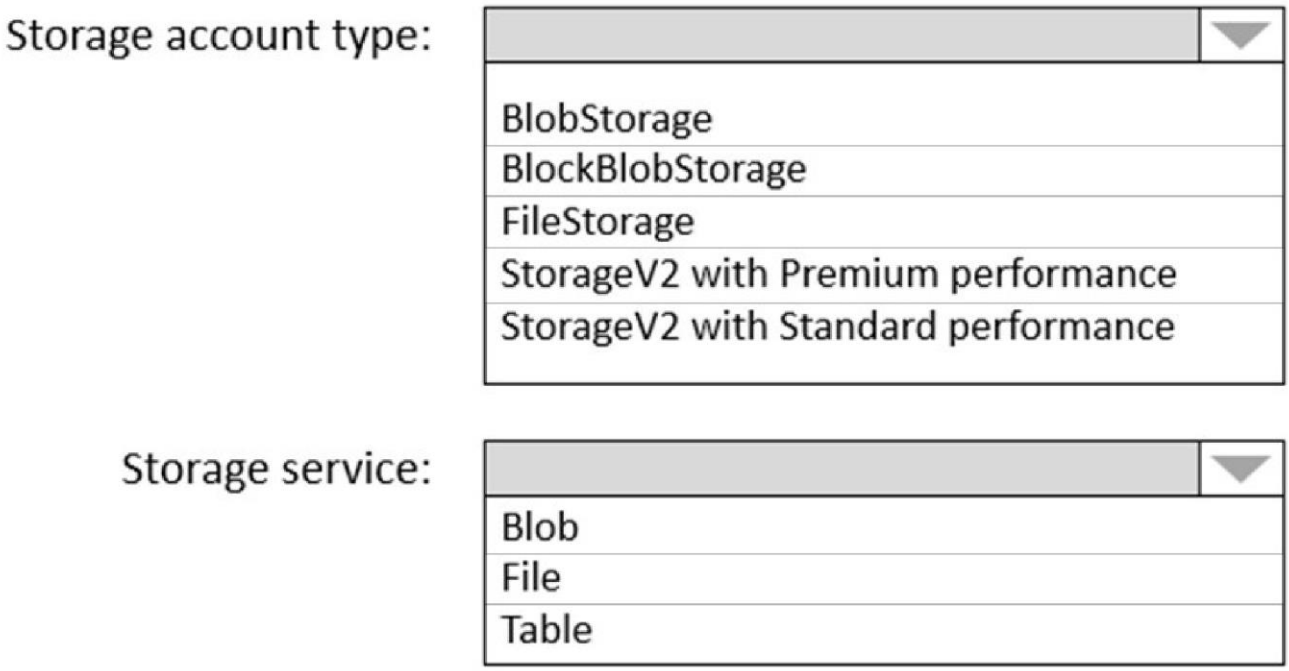
Reference:
https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions

Question: 72

HOTSPOT -
You need to design a storage solution for an app that will store large amounts of frequently used data. The solution must meet the following requirements:
- Maximize data throughput.
- Prevent the modification of data for one year.
- Minimize latency for read and write operations.

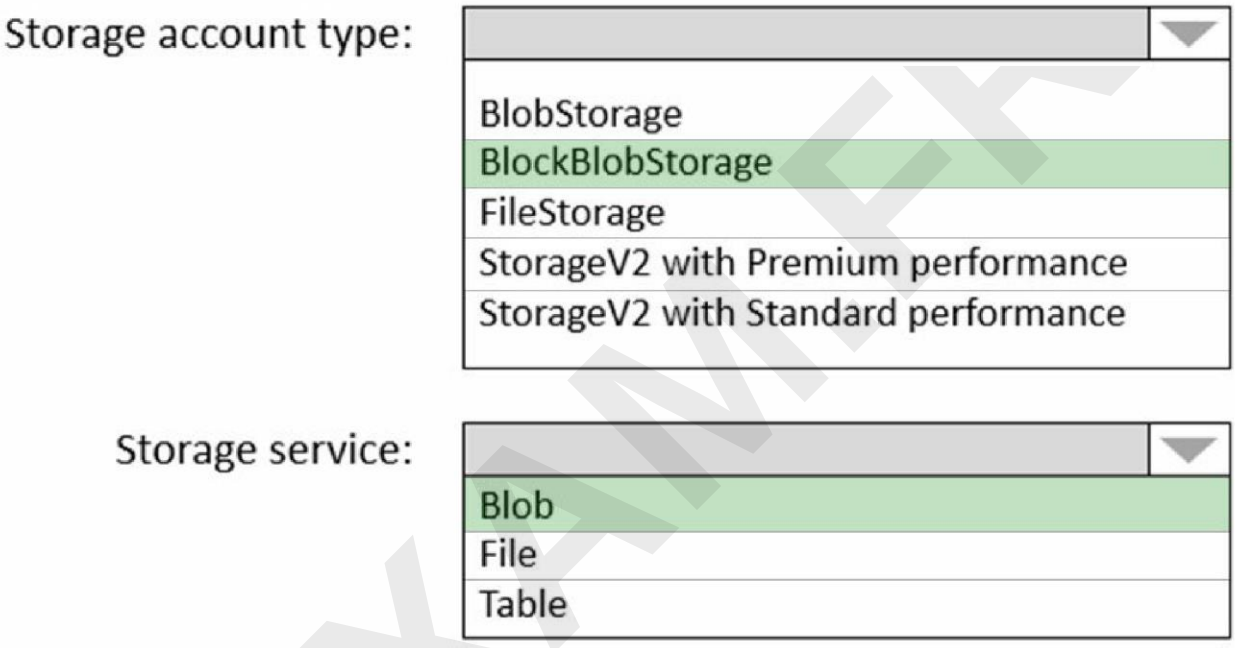
Which Azure Storage account type and storage service should you recommend? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area



Answer:

Answer Area



Explanation:
Box 1: BlockBlobStorage -
Block Blob is a premium storage account type for block blobs and append blobs. Recommended for scenarios with high transactions rates, or scenarios that use smaller objects or require consistently low storage latency.

Box 2: Blob -
The Archive tier is an offline tier for storing blob data that is rarely accessed. The Archive tier offers the lowest storage costs, but higher data retrieval costs and latency compared to the online tiers (Hot and Cool).
Data must remain in the Archive tier for at least 180 days or be subject to an early deletion charge.

Reference:

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

Question: 73

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

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

You plan to implement two new apps that have the requirements shown in the following table.

Name	Requirement
App1	Use lifecycle management to migrate app data between storage tiers
App2	Store app data in an Azure file share

Which storage accounts should you recommend using for each app? To answer, select the appropriate options in the answer area.
NOTE: Each correct selection is worth one point.
Hot Area:

Answer Area

App1:

- Storage1 and storage2 only
- Storage1 and storage3 only
- Storage1, storage2, and storage3 only
- Storage1, storage2, storage3, and storage4

App2:

- Storage4 only
- Storage1 and storage4 only
- Storage1, storage2, and storage4 only
- Storage1, storage2, storage3, and storage4

Answer:

Answer Area

App1:

- Storage1 and storage2 only
- Storage1 and storage3 only
- Storage1, storage2, and storage3 only
- Storage1, storage2, storage3, and storage4

App2:

- Storage4 only
- Storage1 and storage4 only
- Storage1, storage2, and storage4 only
- Storage1, storage2, storage3, and storage4

Explanation:
Box 1: Storage1 and storage3 only
Need to use Standard accounts.
Data stored in a premium block blob storage account cannot be tiered to hot, cool, or archive using Set Blob

Tier or using Azure Blob Storage lifecycle management
Box 2: Storage1 and storage4 only
Azure File shares requires Premium accounts. Only Storage1 and storage4 are premium.

Reference:
https://docs.microsoft.com/en-us/azure/storage/blobs/access-tiers-overview#feature-support https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal#basics

Question: 74

You are designing an application that will be hosted in Azure.
The application will host video files that range from 50 MB to 12 GB. The application will use certificate-based authentication and will be available to users on the internet.
You need to recommend a storage option for the video files. The solution must provide the fastest read performance and must minimize storage costs.
What should you recommend?

A. Azure Files
B. Azure Data Lake Storage Gen2
C. Azure Blob Storage
D. Azure SQL Database

Answer: C

Explanation:
Blob Storage: Stores large amounts of unstructured data, such as text or binary data, that can be accessed from anywhere in the world via HTTP or HTTPS. You can use Blob storage to expose data publicly to the world, or to store application data privately.
Max file in Blob Storage. 4.77 TB.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/solution-ideas/articles/digital-media-video

Question: 75

You are designing a SQL database solution. The solution will include 20 databases that will be 20 GB each and have varying usage patterns.
You need to recommend a database platform to host the databases. The solution must meet the following requirements:
➪ The solution must meet a Service Level Agreement (SLA) of 99.99% uptime.
➪ The compute resources allocated to the databases must scale dynamically.
➪ The solution must have reserved capacity.
Compute charges must be minimized.

What should you include in the recommendation?

- A. an elastic pool that contains 20 Azure SQL databases
- B. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine in an availability set
- C. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine
- D. 20 instances of Azure SQL Database serverless

Answer: A

Explanation:

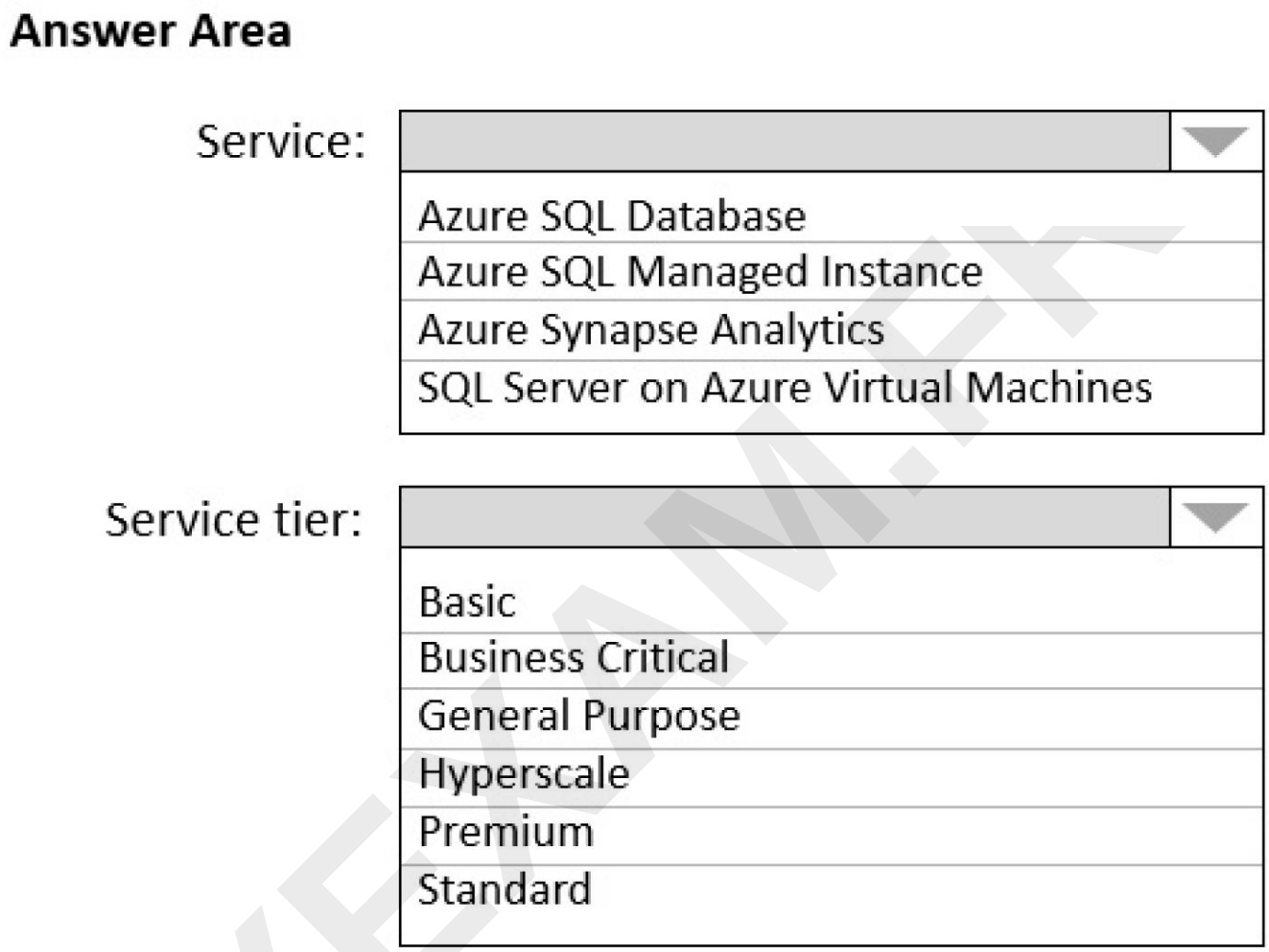
The compute and storage redundancy is built in for business critical databases and elastic pools, with a SLA of 99.99%.

Reserved capacity provides you with the flexibility to temporarily move your hot databases in and out of elastic pools (within the same region and performance tier) as part of your normal operations without losing the reserved capacity benefit.

Reference:
https://azure.microsoft.com/en-us/blog/understanding-and-leveraging-azure-sql-database-sla/

Question: 76

HOTSPOT -
You have an on-premises database that you plan to migrate to Azure.
You need to design the database architecture to meet the following requirements:☞
Support scaling up and down.
☞ Support geo-redundant backups.
☞ Support a database of up to 75 TB.
☞ Be optimized for online transaction processing (OLTP).
What should you include in the design? To answer, select the appropriate options in the answer area. NOTE:
Each correct selection is worth one point.
Hot Area:



Answer:

Answer Area

Service:

- Azure SQL Database
- Azure SQL Managed Instance
- Azure Synapse Analytics
- SQL Server on Azure Virtual Machines

Service tier:

- Basic
- Business Critical
- General Purpose
- Hyperscale
- Premium
- Standard

Explanation:
Box 1: Azure SQL Database -
Azure SQL Database:
Database size always depends on the underlying service tiers (e.g. Basic, Business Critical, Hyperscale). It supports databases of up to 100 TB with Hyperscale service tier model.

Active geo-replication is a feature that lets you to create a continuously synchronized readable secondary database for a primary database. The readable secondary database may be in the same Azure region as the primary, or, more commonly, in a different region. This kind of readable secondary databases are also known as geo-secondaries, or geo-replicas.

Azure SQL Database and SQL Managed Instance enable you to dynamically add more resources to your database with minimal downtime.

Box 2: Hyperscale -
Incorrect Answers:
⇨ SQL Server on Azure VM: geo-replication not supported.

⇨ Azure Synapse Analytics is not optimized for online transaction processing (OLTP).

⇨ Azure SQL Managed Instance max database size is up to currently available instance size (depending on the number of vCores).

Max instance storage size (reserved) - 2 TB for 4 vCores
- 8 TB for 8 vCores
- 16 TB for other sizes

Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/active-geo-replication-overview https://medium.com/awesome-azure/azure-difference-between-azure-sql-database-and-sql-server-on-vm-comparison-azure-sql-vs-sql-server-vm-cf02578a1188

Question: 77

You are planning an Azure IoT Hub solution that will include 50,000 IoT devices.
Each device will stream data, including temperature, device ID, and time data. Approximately 50,000 records will be written every second. The data will be visualized in near real time.
You need to recommend a service to store and query the data.
Which two services can you recommend? Each correct answer presents a complete solution.
NOTE: Each correct selection is worth one point.

A. Azure Table Storage
B. Azure Event Grid
C. Azure Cosmos DB SQL API
D. Azure Time Series Insights

Answer: CD

Explanation:
D: Time Series Insights is a fully managed service for time series data. In this architecture, Time Series Insights performs the roles of stream processing, data store, and analytics and reporting. It accepts streaming data from either IoT Hub or Event Hubs and stores, processes, analyzes, and displays the data in near real time.

C: The processed data is stored in an analytical data store, such as Azure Data Explorer, HBase, Azure Cosmos DB, Azure Data Lake, or Blob Storage.

Reference:
https://docs.microsoft.com/en-us/azure/architecture/data-guide/scenarios/time-series

Question: 78

You are designing an application that will aggregate content for users.
You need to recommend a database solution for the application. The solution must meet the following requirements:
- Support SQL commands.
- Support multi-master writes.
- Guarantee low latency read operations.

What should you include in the recommendation?

A. Azure Cosmos DB SQL API
B. Azure SQL Database that uses active geo-replication
C. Azure SQL Database Hyperscale
D. Azure Database for PostgreSQL

Answer: A

Explanation:
With Cosmos DB's novel multi-region (multi-master) writes replication protocol, every region supports both writes and reads. The multi-region writes capability also enables:
Unlimited elastic write and read scalability.
99.999% read and write availability all around the world.
Guaranteed reads and writes served in less than 10 milliseconds at the 99th percentile.

Reference:
https://docs.microsoft.com/en-us/azure/cosmos-db/distribute-data-globally

Question: 79

HOTSPOT -
You have an Azure subscription that contains the SQL servers on Azure shown in the following table.

Name	Resource group	Location
SQLsvr1	RG1	East US
SQLsvr2	RG2	West US

The subscription contains the storage accounts shown in the following table.

Name	Resource group	Location	Account kind
storage1	RG1	East US	StorageV2 (general purposev2)
storage2	RG2	Central US	BlobStorage

You create the Azure SQL databases shown in the following table.

Name	Resource group	Server	Pricing tier
SQLdb1	RG1	SQLsvr1	Standard
SQLdb2	RG1	SQLsvr1	Standard
SQLdb3	RG2	SQLsvr2	Premium

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

Answer Area

Statements	Yes	No
When you enable auditing for SQLdb1, you can store the audit information to storage1.	○	○
When you enable auditing for SQLdb2, you can store the audit information to storage2.	○	○
When you enable auditing for SQLdb3, you can store the audit information to storage2.	○	○

Answer:

Answer Area

Statements	Yes	No
When you enable auditing for SQLdb1, you can store the audit information to storage1.	○	○
When you enable auditing for SQLdb2, you can store the audit information to storage2.	○	○
When you enable auditing for SQLdb3, you can store the audit information to storage2.	○	○

Explanation:

Box 1: Yes -
Auditing works fine for a Standard account.

Box 2: No -
Auditing limitations: Premium storage is currently not supported.

Box 3: No -
Auditing limitations: Premium storage is currently not supported.

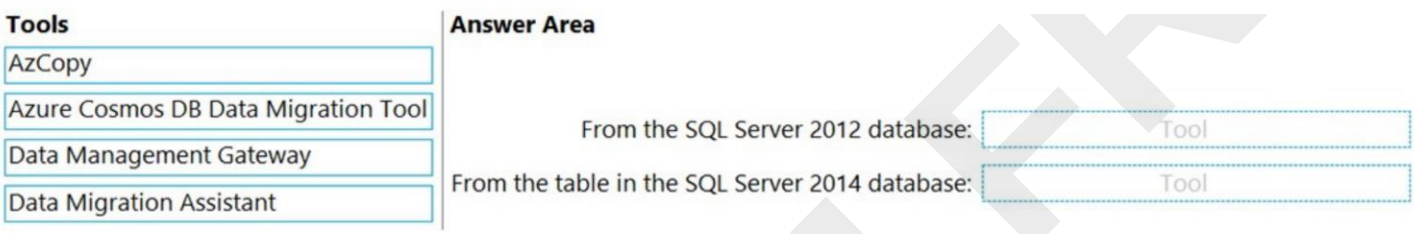
Reference:
https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview#auditing-limitations

Question: 80

DRAG DROP -
You plan to import data from your on-premises environment to Azure. The data is shown in the following table.

On-premises source	Azure target
A Microsoft SQL Server 2012 database	An Azure SQL database
A table in a Microsoft SQL Server 2014 database	An Azure Cosmos DB account that uses the SQL API

What should you recommend using to migrate the data? To answer, drag the appropriate tools to the correct data sources. Each tool may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
NOTE: Each correct selection is worth one point.
Select and Place:



Answer:

Explanation:
Box 1: Data Migration Assistant -
The Data Migration Assistant (DMA) helps you upgrade to a modern data platform by detecting compatibility issues that can impact database functionality in your new version of SQL Server or Azure SQL Database. DMA recommends performance and reliability improvements for your target environment and allows you to move your schema, data, and uncontained objects from your source server to your target server.

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

Box 2: Azure Cosmos DB Data Migration Tool
Azure Cosmos DB Data Migration Tool can used to migrate a SQL Server Database table to Azure Cosmos.

Reference:

https://docs.microsoft.com/en-us/sql/dma/dma-overview
https://docs.microsoft.com/en-us/azure/cosmos-db/cosmosdb-migrationchoices