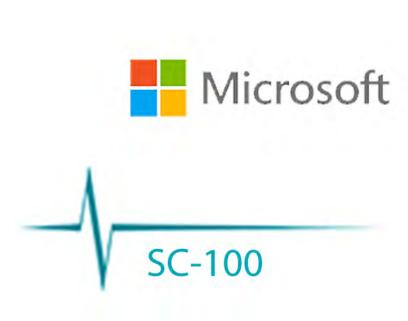
Practice Exam Questions



Microsoft Cybersecurity Architect



Microsoft

Exam SC-100

Microsoft Cybersecurity Architect

Version: 9.0

[Total Questions: 130]

Topic break down

| Торіс | No. of Questions |
|-------------------------------------|------------------|
| Topic 1: Fabrikam, Inc Case Study 1 | 10 |
| Topic 2: Litware, inc. Case Study 2 | 9 |
| Topic 3: Mix Questions | 111 |

Topic 1, Fabrikam, Inc Case Study 1

OverView

Fabrikam, Inc. is an insurance company that has a main office in New York and a branch office in Paris.

On-premises Environment

The on-premises network contains a single Active Directory Domain Services (AD DS) domain named corp.fabrikam.com.

Azure Environment

Fabrikam has the following Azure resources:

- An Azure Active Directory (Azure AD) tenant named fabrikam.onmicrosoft.com that syncs with corp.fabnkam.com
- A single Azure subscription named Sub1
- A virtual network named Vnet1 in the East US Azure region
- A virtual network named Vnet2 in the West Europe Azure region
- An instance of Azure Front Door named FD1 that has Azure Web Application Firewall (WAR enabled
- A Microsoft Sentinel workspace
- An Azure SQL database named ClaimsDB that contains a table named ClaimDetails
- 20 virtual machines that are configured as application servers and are NOT onboarded to Microsoft Defender for Cloud
- A resource group named TestRG that is used for testing purposes only
- An Azure Virtual Desktop host pool that contains personal assigned session hosts All the resources in Sub1 are in either the East US or the West Europe region.

Partners

Fabrikam has contracted a company named Contoso, Ltd. to develop applications. Contoso has the following infrastructure-.

- An Azure AD tenant named contoso.onmicrosoft.com
- An Amazon Web Services (AWS) implementation named ContosoAWS1 that contains AWS EC2 instances used to host test workloads for the applications of Fabrikam Developers at Contoso will connect to the resources of Fabrikam to test or update applications. The developers will be added to a security Group named Contoso Developers in fabrikam.onmicrosoft.com that will be assigned to roles in Sub1.

The ContosoDevelopers group is assigned the db.owner role for the ClaimsDB database.

Compliance Event

Fabrikam deploys the following compliance environment:

- Defender for Cloud is configured to assess all the resources in Sub1 for compliance to the HIPAA HITRUST standard.
- Currently, resources that are noncompliant with the HIPAA HITRUST standard are remediated manually.
- Qualys is used as the standard vulnerability assessment tool for servers.

Problem Statements

The secure score in Defender for Cloud shows that all the virtual machines generate the following recommendation-. Machines should have a vulnerability assessment solution. All the virtual machines must be compliant in Defender for Cloud.

ClaimApp Deployment

Fabrikam plans to implement an internet-accessible application named ClaimsApp that will have the following specification

- ClaimsApp will be deployed to Azure App Service instances that connect to Vnetl and Vnet2.
- Users will connect to ClaimsApp by using a URL of https://claims.fabrikam.com.
- ClaimsApp will access data in ClaimsDB.
- ClaimsDB must be accessible only from Azure virtual networks.
- The app services permission for ClaimsApp must be assigned to ClaimsDB.

Application Development Requirements

Fabrikam identifies the following requirements for application development:

- Azure DevTest labs will be used by developers for testing.
- All the application code must be stored in GitHub Enterprise.
- Azure Pipelines will be used to manage application deployments.
- All application code changes must be scanned for security vulnerabilities, including application code or configuration files that contain secrets in clear text. Scanning must be done at the time the code is pushed to a repository.

Security Requirement

Fabrikam identifies the following security requirements:

- Internet-accessible applications must prevent connections that originate in North Korea.
- Only members of a group named InfraSec must be allowed to configure network security groups (NSGs) and instances of Azure Firewall, VJM. And Front Door in Sub1.
- Administrators must connect to a secure host to perform any remote administration of the virtual machines. The secure host must be provisioned from a custom operating system image.

AWS Requirements

Fabrikam identifies the following security requirements for the data hosted in ContosoAWSV.

- Notify security administrators at Fabrikam if any AWS EC2 instances are noncompliant with secure score recommendations.
- Ensure that the security administrators can query AWS service logs directly from the Azure environment.

Contoso Developer Requirements

Fabrikam identifies the following requirements for the Contoso developers;

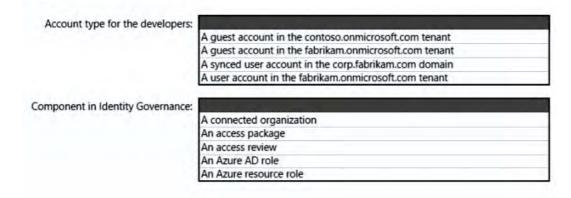
- Every month, the membership of the ContosoDevelopers group must be verified.
- The Contoso developers must use their existing contoso.onmicrosoft.com credentials to access the resources in Sub1.
- The Comoro developers must be prevented from viewing the data in a column named MedicalHistory in the ClaimDetails table.

Compliance Requirement

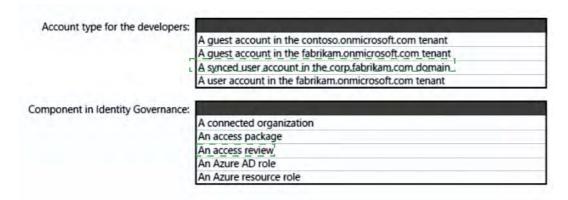
Fabrikam wants to automatically remediate the virtual machines in Sub1 to be compliant with the HIPPA HITRUST standard. The virtual machines in TestRG must be excluded from the compliance assessment.

Question No : 1 HOTSPOT - (Topic 1)

What should you create in Azure AD to meet the Contoso developer requirements?



Answer:



Explanation: Box 1: A synced user account -

Need to use a synched user account.

Box 2: An access review

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

Question No : 2 - (Topic 1)

You need to recommend a solution to meet the security requirements for the InfraSec group. What should you use to delegate the access?

A. a subscription

B. a custom role-based access control (RBAC) role

- C. a resource group
- D. a management group

Answer: B

Question No : 3 - (Topic 1)

You need to recommend a solution to scan the application code. The solution must meet the application development requirements. What should you include in the recommendation?

- A. Azure Key Vault
- **B.** GitHub Advanced Security
- C. Application Insights in Azure Monitor
- **D.** Azure DevTest Labs

Answer: B

Explanation: https://docs.microsoft.com/en-us/learn/modules/introduction-github-advanced-security/2-what-is-github-advanced-security

Question No: 4 - (Topic 1)

You need to recommend a solution to resolve the virtual machine issue. What should you include in the recommendation? (Choose Two)

- **A.** Onboard the virtual machines to Microsoft Defender for Endpoint.
- **B.** Onboard the virtual machines to Azure Arc.
- **C.** Create a device compliance policy in Microsoft Endpoint Manager.
- **D.** Enable the Qualys scanner in Defender for Cloud.

Answer: A,D

Explanation: https://docs.microsoft.com/en-us/microsoft-365/security/defender-endpoint/switch-to-mde-phase-3?view=o365-worldwide

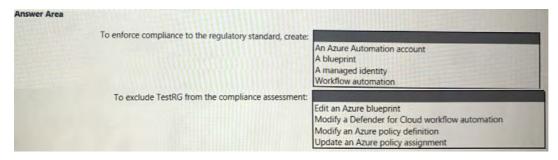
Question No: 5 HOTSPOT - (Topic 1)

You need to recommend a solution to meet the compliance requirements.

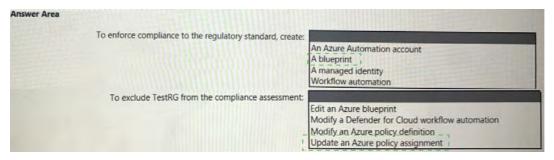
What should you recommend? To answer, select the appropriate options in the answer

area.

NOTE: Each correct selection is worth one point.



Answer:



Explanation:

Box 1 = A Blueprint

Box 2 = Update an Azure Policy assignment

https://learn.microsoft.com/en-us/azure/governance/policy/tutorials/create-and-manage#update-assignment-with-exclusion

https://docs.microsoft.com/en-us/azure/governance/policy/concepts/definition-structure while it is in policy assignment

- https://docs.microsoft.com/en-us/azure/governance/policy/concepts/assignment-structure

Question No: 6 - (Topic 1)

You need to recommend a solution to secure the MedicalHistory data in the ClaimsDetail table. The solution must meet the Contoso developer requirements.

What should you include in the recommendation?

- **A.** Transparent Data Encryption (TDE)
- B. Always Encrypted
- **C.** row-level security (RLS)
- D. dynamic data masking
- E. data classification

Answer: B

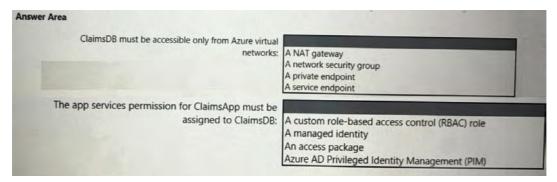
Explanation: https://docs.microsoft.com/en-us/learn/modules/protect-data-transit-rest/4-explain-object-encryption-secure-enclaves

Question No: 7 HOTSPOT - (Topic 1)

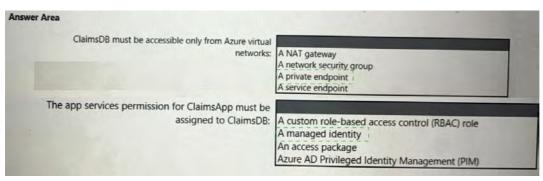
You need to recommend a solution to meet the requirements for connections to ClaimsDB.

What should you recommend using for each requirement? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.



Answer:



Question No:8 - (Topic 1)

You need to recommend a solution to meet the security requirements for the virtual machines. What should you include in the recommendation?

A. an Azure Bastion host

- **B.** a network security group (NSG)
- C. just-in-time (JIT) VM access
- D. Azure Virtual Desktop

Answer: D

Explanation: The security requirement this question wants us to meet is "The secure host must be provisioned from a custom operating system image."

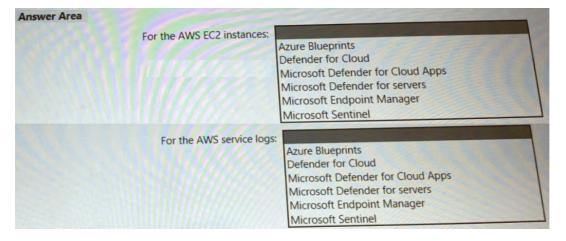
https://docs.microsoft.com/en-us/azure/virtual-desktop/set-up-golden-image

Question No: 9 HOTSPOT - (Topic 1)

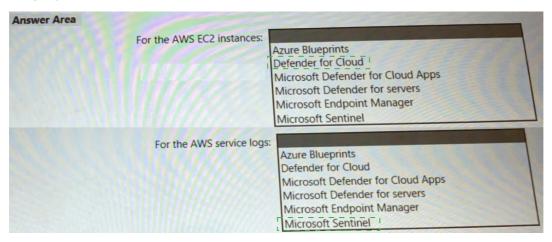
You need to recommend a solution to meet the AWS requirements.

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

NOTE: Each correct selection is worth one point.



Answer:





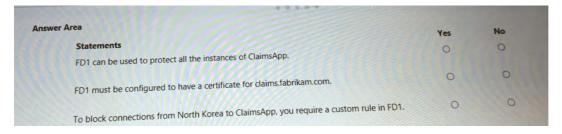
Explanation:

Question No: 10 HOTSPOT - (Topic 1)

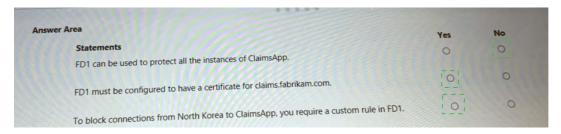
You are evaluating the security of ClaimsApp.

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:



Topic 2, Litware, inc. Case Study 2

Overview

Litware, inc. is a financial services company that has main offices in New York and San Francisco. litware has 30 branch offices and remote employees across the United States. The remote employees connect to the main offices by using a VPN.

Litware has grown significantly during the last two years due to mergers and acquisitions. The acquisitions include several companies based in France.

Existing Environment

Litware has an Azure Active Directory (Azure AD) tenant that syncs with an Active Directory Domain Services (AD D%) forest named Utvvare.com and is linked to 20 Azure subscriptions. Azure AD Connect is used to implement pass-through authentication. Password hash synchronization is disabled, and password writeback is enabled. All Litware

users have Microsoft 365 E5 licenses.

The environment also includes several AD DS forests, Azure AD tenants, and hundreds of Azure subscriptions that belong to the subsidiaries of Litware.

Planned Changes

Litware plans to implement the following changes:

- Create a management group hierarchy for each Azure AD tenant.
- Design a landing zone strategy to refactor the existing Azure environment of Litware and deploy all future Azure workloads.
- Implement Azure AD Application Proxy to provide secure access to internal applications that are currently accessed by using the VPN.

Business Requirements

Litware identifies the following business requirements:

- Minimize any additional on-premises infrastructure.
- Minimize the operational costs associated with administrative overhead.

Hybrid Requirements

Litware identifies the following hybrid cloud requirements:

- Enable the management of on-premises resources from Azure, including the following:
- •Use Azure Policy for enforcement and compliance evaluation.
- Provide change tracking and asset inventory.
- Implement patch management.
- Provide centralized, cross-tenant subscription management without the overhead of maintaining guest accounts.

Microsoft Sentinel Requirements

Litware plans to leverage the security information and event management (SIEM) and security orchestration automated response (SOAK) capabilities of Microsoft Sentinel. The company wants to centralize Security Operations Center (SOQ by using Microsoft Sentinel.

Identity Requirements

Litware identifies the following identity requirements:

- Detect brute force attacks that directly target AD DS user accounts.
- Implement leaked credential detection in the Azure AD tenant of Litware.
- Prevent AD DS user accounts from being locked out by brute force attacks that target Azure AD user accounts.
- Implement delegated management of users and groups in the Azure AD tenant of Litware, including support for.
- The management of group properties, membership, and licensing « The management of user properties, passwords, and licensing
- The delegation of user management based on business units.

Regulatory Compliance Requirements

Litware identifies the following regulatory compliance requirements:

- insure data residency compliance when collecting logs, telemetry, and data owned by each United States- and France-based subsidiary.
- Leverage built-in Azure Policy definitions to evaluate regulatory compliance across the entire managed environment.
- Use the principle of least privilege.

Azure Landing Zone Requirements

Litware identifies the following landing zone requirements:

- Route all internet-bound traffic from landing zones through Azure Firewall in a dedicated Azure subscription.
- Provide a secure score scoped to the landing zone.
- Ensure that the Azure virtual machines in each landing zone communicate with Azure App Service web apps in the same zone over the Microsoft backbone network, rather than over public endpoints.
- Minimize the possibility of data exfiltration.
- Maximize network bandwidth.

The landing zone architecture will include the dedicated subscription, which will serve as the hub for internet and hybrid connectivity. Each landing zone will have the following characteristics:

- Be created in a dedicated subscription.
- Use a DNS namespace of litware.com.

Application Security Requirements

Litware identifies the following application security requirements:

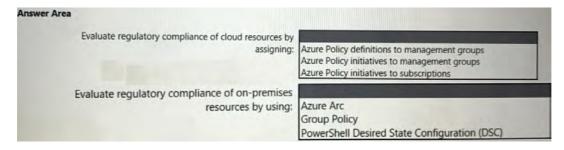
- Identify internal applications that will support single sign-on (SSO) by using Azure AD Application Proxy.
- Monitor and control access to Microsoft SharePoint Online and Exchange Online data in real time.

Question No: 11 HOTSPOT - (Topic 2)

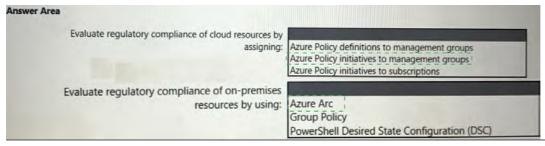
You need to recommend a solution to evaluate regulatory compliance across the entire managed environment. The solution must meet the regulatory compliance requirements and the business requirements.

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

NOTE: Each correct selection is worth one point.



Answer:



Explanation:



Question No: 12 - (Topic 2)

You need to design a strategy for securing the SharePoint Online and Exchange Online data. The solution must meet the application security requirements.

Which two services should you leverage in the strategy? Each correct answer presents part of the solution. NOTE; Each correct selection is worth one point.

- A. Azure AD Conditional Access
- B. Microsoft Defender for Cloud Apps
- C. Microsoft Defender for Cloud
- D. Microsoft Defender for Endpoint
- E. access reviews in Azure AD

Answer: B,E

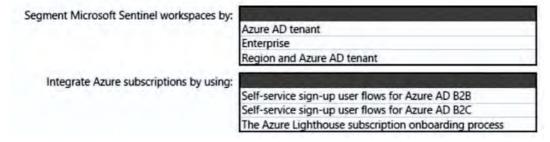
Explanation: https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/concept-conditional-access-session#conditional-access-application-control https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-integrate-with-microsoft-cloud-application-security

Question No: 13 HOTSPOT - (Topic 2)

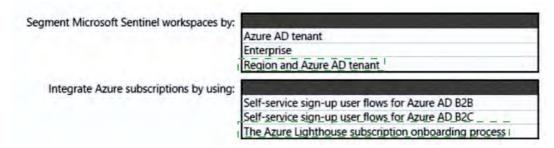
You need to recommend a SIEM and SOAR strategy that meets the hybrid requirements, the Microsoft Sentinel requirements, and the regulatory compliance requirements.

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

NOTE: Each correct selection is worth one point.



Answer:



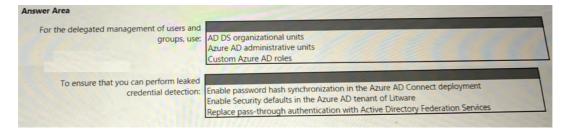
Explanation: Segment Microsoft Sentinel workspaces by: Region and Azure AD tenant Lighthouse subscription

Question No: 14 HOTSPOT - (Topic 2)

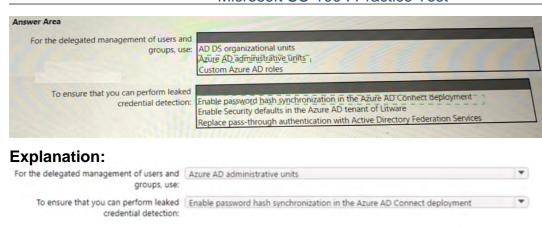
You need to recommend an identity security solution for the Azure AD tenant of Litware. The solution must meet the identity requirements and the regulatory compliance requirements.

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

NOTE: Each correct selection is worth one point.

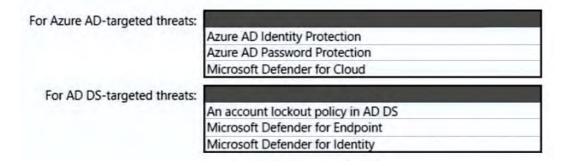


Answer:

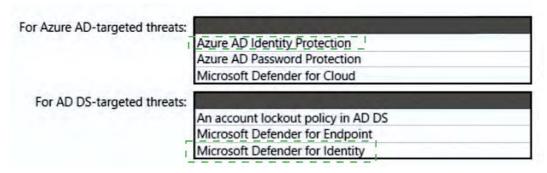


Question No: 15 HOTSPOT - (Topic 2)

You need to recommend a strategy for securing the litware.com forest. The solution must meet the identity requirements. What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE; Each correct selection is worth one point.



Answer:



Explanation: 1. Azure AD Identity Protection

Brute Force Detection: https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/overview-identity-protection

2. Defender for Identity

MDI can detect brute force attacks: ref: https://docs.microsoft.com/en-us/defender-for-identity/compromised-credentials-alerts#suspected-brute-force-attack-ldap-external-id-2004

Question No : 16 - (Topic 2)

To meet the application security requirements, which two authentication methods must the applications support? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Security Assertion Markup Language (SAML)
- B. NTLMv2
- C. certificate-based authentication
- D. Kerberos

Answer: A,D

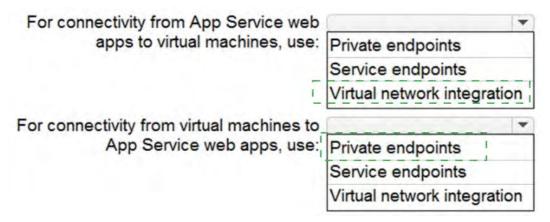
Explanation: https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-configure-single-sign-on-on-premises-apps https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-configure-single-sign-on-with-kcd https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-configure-custom-domain

Question No: 17 HOTSPOT - (Topic 2)

You need to recommend a strategy for App Service web app connectivity. The solution must meet the landing zone requirements. What should you recommend? To answer, select the appropriate options in the answer area. NOTE Each correct selection is worth one point.



Answer:



Explanation:

Box 1: Virtual Network Integration - correct

Virtual network integration gives your app access to resources in your virtual network, but it doesn't grant inbound private access to your app from the virtual network.

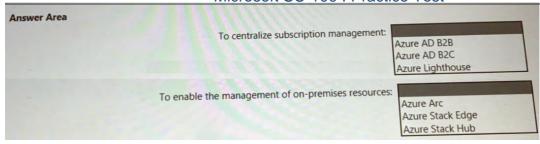
Box 2: Private Endpoints. - correct

You can use Private Endpoint for your Azure Web App to allow clients located in your private network to securely access the app over Private Link.

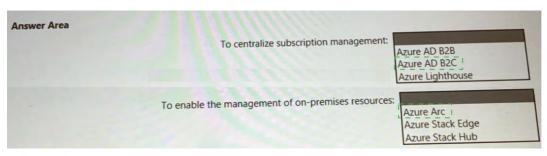
Question No: 18 HOTSPOT - (Topic 2)

You need to recommend a multi-tenant and hybrid security solution that meets to the business requirements and the hybrid requirements. What should you recommend? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

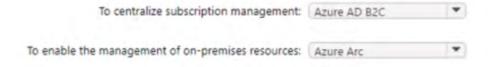
Microsoft SC-100: Practice Test



Answer:



Explanation:



Question No: 19 - (Topic 2)

You need to recommend a solution for securing the landing zones. The solution must meet the landing zone requirements and the business requirements.

What should you configure for each landing zone?

- A. Azure DDoS Protection Standard
- B. an Azure Private DNS zone
- C. Microsoft Defender for Cloud
- **D.** an ExpressRoute gateway

Answer: D

Explanation: One of the stipulations is to meet the business requirements of minimizing costs. ExpressRoute is expensive.

Given the landing zone requirements of

1) "Use a DNS namespace of litware.com"

2) "Ensure that the Azure virtual machines in each landing zone communicate with Azure App Service web apps in the same zone over the Microsoft backbone network, rather than over public endpoints"

Topic 3, Mix Questions

Question No: 20 - (Topic 3)

You use Azure Pipelines with Azure Repos to implement continuous integration and continuous deployment (O/CD) workflows for the deployment of applications to Azure. You need to recommend what to include in dynamic application security testing (DAST) based on the principles of the Microsoft Cloud Adoption Framework for Azure. What should you recommend?

- A. unit testing
- **B.** penetration testing
- C. dependency checks
- D. threat modeling

Answer: C

Question No: 21 HOTSPOT - (Topic 3)

You are designing an auditing solution for Azure landing zones that will contain the following components:

- SQL audit logs for Azure SQL databases
- Windows Security logs from Azure virtual machines
- Azure App Service audit logs from App Service web apps

You need to recommend a centralized logging solution for the landing zones. The solution must meet the following requirements:

- Log all privileged access.
- Retain logs for at least 365 days.
- Minimize costs.

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