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GRAM

WHO AM I?

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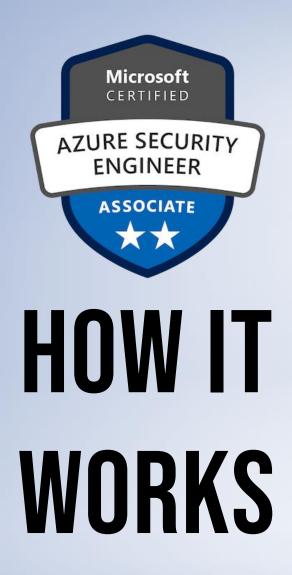








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00

In the OAuth Code Grant flow, the user confirms consent by:

- 1. providing a code back to the app
- 2. entering their password when prompted
- 3. by either providing a code or entering their password
- 4. none of the above



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00

In the OAuth Code Grant flow, the user confirms consent by:



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- 3. by either providing a code or entering their password
- 4. none of the above





00 ANSWER



1. providing a code back to the app

explanation

In the OAuth Code Grant flow, the user confirms consent by entering a code into a textbox provided.



01

Azure AD Privileged Identity Management (PIM) supports which of the following features when users request to activate a privileged identity profile?

- 1. a ticket number in a helpdesk system
- 2. an explanation of why they need to activate
- 3. approval by an admin
- 4. all of the above





01 ANSWER

4. all of the above

Azure AD Privileged Identity

Management supports all three of these options, alone or in any combination.



02

Azure APIs can be protected by configuration of permission scopes to limit access to a 3rd party web app, even when users consent.

TRUE or FALSE?





02 ANSWER

TRUE

Admins can configure permission scopes ahead of any user consent.



03

In the OAuth Code Grant flow, the user confirms consent by:

- 1. providing a code back to the app
- 2. entering their password when prompted
- 3. by either providing a code or entering their password
- 4. none of the above





03 ANSWER

1. providing a code back to the app

In the OAuth Code Grant flow, the user confirms consent by entering a code into a textbox provided.



04

Azure AD Passthrough authentication (PTA) is associated with which of the following identity models?

- 1. Cloud only
- 2. Synchronized
- 3. Federated
- 4. All of the above





04 ANSWER

2. Synchronized

On-premises passwords are never stored in the cloud

Supports controls not present in Azure AD, like "logon hours"

Because it passes the authentication request to on-premises Active Directory, Passthrough Authentication (PTA) is associated with the **Synchronized identity model**



05

Which of the following identities eliminate the need for credentials in code?

- 1. Managed Identities
- 2. Service Principals
- 3. Managed Identities and Service Principals
- 4. None of the above





05 ANSWER

1. Managed Identities

Managed Identities eliminate the need to manage credentials. Managed identities are service principals of a special type, which are locked to only be used with Azure resources.



06

With Azure AD MFA, you can automatically block authentication for users who report fraud via email to a support address.

TRUE or FALSE?





06 ANSWER

FALSE

Users can report fraud using a code via phone (0 by default).



07

You can activate an eligible privileged identity profile

- 1. via the Microsoft Authenticator App
- 2. via the Azure Privileged Identity app in the Azure portal.
- 3. in the properties of your Office 365 user profile
- 4. All the above





07 ANSWER

2. via the Azure Privileged Identity app in the Azure portal.

Activating a profile is performed within the Azure AD PIM app in the Azure portal.



80

You can create new users in Azure AD with the Create-AzureADUser cmdlet.

TRUE or FALSE?





08 ANSWER

FALSE

This is false. The **New-AzureADUser** cmdlet is used to create new users in Azure AD.

DOMAIN 2: IMPLEMENT PLATFORM PROTECTION



09

Azure Container Registry (ACR) supports Kubernetes and Docker running on thirdparty cloud platforms.

TRUE or FALSE?





09 ANSWER

TRUE

When Microsoft Defender for container registries is enabled, any image you push to your registry will be scanned immediately.

ACR is a Docker container registry and does not disallow access from clouds other than Azure, with proper authentication.

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10

You are planning on rolling out a new Azure AD Conditional Access policy to restrict access to only specific device platforms. Which of the following device platforms is <u>not</u> supported?

- 1. Android
- 2. iOS
- 3. Chrome OS
- 4. None of the above





10 ANSWER

3. Chrome OS

Chrome OS is not natively supported for device compliance in Conditional Access policies. Android, iOS, Windows, and MacOS are.



11

You can configure an Azure AD Conditional Access policies for specific client applications, such as Microsoft Word.

TRUE or FALSE?





11 ANSWER

TRUE

Conditional access can be scoped for specific apps, limited to compliant devices, sign-in risk, and more.



12

Microsoft Azure AD Identity Protection evaluates risk associated with:

- 1. users and sign-in attempts
- 2. users
- 3. users and devices
- 4. users, sign-in attempts, and devices





12 ANSWER

1. users and sign-in attempts

Azure AD Identity Protection evaluates risk associated to users and sign-in attempts.

Know the difference between "user risk" and sign-in risk



13

Admin consent in Azure Active Directory (Azure AD) grants consent on behalf of

- 1. a specific user
- 2. all users
- 3. a specific user or device
- 4. none of the above





13 ANSWER

2. all users

Admin consent grants consent on behalf of all users (tenant-wide). Admins can control the scope of a user's ability to consent, including limiting permissions they may consent to, or disabling user consent.



14

Azure AD Connect or Azure AD Connect Cloud Sync can be used to configure which of the following identity models?

- 1. Cloud only
- 2. Synchronized and Federated
- 3. Synchronized
- 4. All of the above





14 ANSWER

2. Synchronized and Federated

Both the **Synchronized** and **Federated** models leverage Azure AD Connect or Azure AD Connect Cloud Sync.

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15

Security Groups and Microsoft 365 groups can both be used to secure Azure resources.

TRUE or FALSE?





15 ANSWER

TRUE

Microsoft 365 groups (formerly called Office 365 groups) can be used to secure resources, just like Security groups. Microsoft 365 groups also include additional functionality for enabling collaboration.

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16

You can configure access reviews in Privileged Identity Management (PIM) to be self-completed by the eligible members of the privileged roles.

TRUE or FALSE?





16 ANSWER

TRUE

Yes, you can assign designated reviewers, owners, or eligible role members. You can also configure affect to role eligibility when a self-reviewer fails to respond.

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17

You need to continually evaluate the security posture of all identities in Azure Active Directory. You need to provide risk level, risk events, and current status. What should you configure?

- 1. Azure AD Conditional Access
- 2. Azure AD Identity Protection
- 3. Microsoft Cloud App Security
- 4. Privileged Identity Management





17 ANSWER

2. Azure AD Identity Protection

Identity Protection is a tool that allows organizations to automate the detection and remediation of identity-based risks and investigate risks using data in the portal.



18

You can configure Azure AD Conditional Access policies to target only users in untrusted locations.

TRUE or FALSE?





18 ANSWER

TRUE

TIP: select "All trusted locations" on the Exclude tab under Conditions > Locations

Conditional access can be scoped for specific users, apps, limited to compliant devices, sign-in risk, and more.



19

When configuring Single Sign On (SSO) for hybrid users, you need to ensure that all user passwords are evaluated by the on-premises Active Directory domain controller. What action will you take?

- 1. Configure Group Writeback in Azure AD Connect
- 2. Add users to a Privileged Identity Management profile
- 3. Create an Azure AD Conditional Access policy
- 4. Configure Passthrough Authentication (PTA)





19 ANSWER

4. Configure Passthrough Authentication

Azure AD Pass-through Authentication allows single sign-on for on-premises and cloud-based apps by validating user passwords directly against on-premises Active Directory.



20

You need to secure all guest user identities by only allowing logging into Microsoft Teams via Windows endpoints, always enforcing MFA. What should you implement to accomplish this goal?

- 1. Privileged Identity Management (PIM)
- 2. Azure AD Identity Protection
- 3. Passthrough Authentication (PTA)
- 4. Azure AD Conditional Access





20 ANSWER

4. Azure AD Conditional Access

Conditional Access supports rule configuration based on platform, app, risk, location, and more.



21

What is the minimum Azure RBAC role required to view Azure Monitor logs?

- 1. Security Administrator
- 2. Monitoring Contributor
- 3. Monitoring Administrator
- 4. Monitoring Reader





21 ANSWER

4. Monitoring Reader

Always choose your answers with "least privilege access" in mind

The Monitoring Reader role has read-only access to monitoring data.



22

Transferring a subscription to a new Azure AD tenant will cause Azure VMs to stop running.

TRUE or FALSE?





22 ANSWER

FALSE

This transfer will result in Azure role assignments being permanently deleted. It will impact managed identities. VMs will not stop running, but you will have to re-enable or recreate any managed identities after the transfer.



23

An app registration in Azure Active Directory creates an application object, as well as a service principal that can access resources.

TRUE or FALSE?





23 ANSWER

TRUE

See "Azure AD App Registration You Tube in Plain English (exam FAQs)" on

Yes, the **app object** is the GLOBAL representation of the app in the tenant where the app is registered, and the **service principal** the LOCAL, concrete instance, present in each tenant where the app is used.



24

For app registration, what are the permission types supported by the Microsoft identity platform? (Select two)

- 1. Delegated permissions
- 2. Explicit permissions
- 3. Inherited permissions
- 4. Application permissions





24 ANSWER

- 1. Delegated permissions,
- 4. Application permissions

Delegated permissions are used by apps that have a signed-in user present. **Application permissions** are used by apps that run without a signed-in user present.



25

What is the format of an OpenID Connect token?

- 1. YAML
- 2. XML
- 3. JWT
- 4. SAML





25 ANSWER

3. JWT

OpenID tokens are JSON Web Token (JWT) format. They are sent to the client application as part of an OpenID Connect (OIDC) flow and are used by the client to authenticate the user.



26

What is the minimum required license to enable Azure AD Conditional Access for a user?

- 1. Azure AD Premium Plan 2 (P2)
- 2. Microsoft 365 Business
- 3. Microsoft 365 E3
- 4. Azure AD Premium Plan 1 (P1)





26 ANSWER

4. Azure AD Premium Plan 1 (P1)

Azure AD Premium P1 is the minimum licensing required to enable Azure AD Conditional Access policies.



27

In Privileged Identity Management, what are the available settings when an assigned reviewer does not complete the review before the configured review ends?

- 1. No change
- 2. Remove access
- 3. Approve access
- 4. Disable account





27 ANSWER

- 1. No change, 2. Remove access,
- 3. Approve access

You have a variety of options with PIM reviews, enabling you to remove access from users who do not respond to reviews if necessary. Another option, "Take recommendations" is also available.



28

When multiple Azure Active Directory Conditional Access policies apply to a user, which of the following are true?

- 1. Policies are not applied in a particular order
- 2. Block access takes priority over all settings
- 3. Policies are applied in order by created date
- 4. Policies with device settings take precedence





28 ANSWER

Options 1 and 2

For every sign-in, Azure Active Directory evaluates <u>all</u> <u>policies</u> and ensures that all requirements in all applicable policies are met <u>before</u> granting access to the user. **Block access takes priority** over all other configuration settings.



29

When configuring an app registration in Azure AD, in which area of the registration do you configure the services the application can access?

- 1. in the Manifest
- 2. Authentication blade
- 3. API Permissions blade
- 4. Roles and Administrators blade





29 ANSWER

3. API Permissions

You use the 'Add a permission' button in the API Permissions blade.



30

and ____ are required for access for an application that has been registered with Azure AD for modern user authentication.

- 1. Tenant ID, Client ID
- 2. Client ID, Client Secret
- 3. Client ID, Redirect URL
- 4. Tenant ID, Client Secret





30 ANSWER

2. Client ID, Client Secret

Think of **client ID** and **client secret** as the user and password. A **redirect URI** is the location that the authorization server will send the user to once the app has been successfully authorized and granted an authorization code or access token.



31

You need to delegate access to an admin for a VM named "VM1" in the "ContosoVM" resource group. They should have full control over the VM but should not be able to grant access to other users. What permissions will you assign?

- 1. Scope = "ContosoVM", Role = "Owner"
- 2. Scope = "ContosoVM", Role = "Contributor"
- 3. Scope = "VM1", Role = "Owner"
- 4. Scope = "VM1", Role = "Contributor"





31 ANSWER

4. Scope = "VM1", Role = "Contributor"

Contributor role access grants all rights <u>except</u> the ability to grant rights to others. Scoping to the VM object only ensures permissions are not granted to other VMs in the resource group.



32

Which of the following roles can manage assignments for other administrators in Privileged Identity Management (PIM) for Azure AD roles?

- 1. Global Administrator
- 2. Security Administrator
- 3. Security Reader
- 4. Privileged Role Administrator





32 ANSWER

- 1. Global Administrator,
- 4. Privileged Role Administrator

The **Global Administrator** who enables Privileged Identity Management (PIM) for an organization automatically get role assignments and access to PIM. The first user can assign others to the Privileged Role Administrator role.



33

Which of the following roles are required to manage assignments for other administrators in PIM for Azure resource roles?

- 1. Subscription Administrator
- 2. Resource Administrator
- 3. Privileged Role Administrator
- 4. Security Administrator





33 ANSWER

2. Resource Administrator

A user cannot manage Privileged Identity Management for resources without Resource Administrator permissions.



01

Azure Update Management can patch both Windows and Linux VMs.





01 ANSWER

TRUE

Azure Update Management supports patching both supported Windows and several Linux distributions.



02

Network Security Groups include a rule to allow RDP access on which port by default?

- 1. TCP 22
- 2. TCP 443
- 3. TCP 3389
- 4. None of the above





02 ANSWER

4. None of the above

No rule is configured to enable remote access by default.



03

Physical isolation in AKS provides the highest pod density for running workloads.





03 ANSWER

FALSE

Separate physical nodes result in lower pod density and greater management overhead.



04

The Azure Virtual Network Container Network Interface (CNI) enables advanced networking for the following container solutions. (choose the best answer)

- 1. Azure Kubernetes Service (AKS)
- 2. AKS Engine
- 3. Docker containers
- 4. All the above





04 ANSWER

4. All of the above

Also works with Kubernetes resources such as services, ingress controllers, and Kube DNS.

Azure Virtual Network CNI supports AKS, AKS Engine, as well as Docker.



05

The following are the available types of Azure resource locks. (choose the best answer)

- 1. CanNotDelete, ReadOnly
- 2. CanNotDelete, ReadOnly, NoAccess
- 3. CanNotDelete, NoAccess
- 4. CanNotDelete





05 ANSWER

1. CanNotDelete, ReadOnly

The two resource lock types are CanNotDelete and ReadOnly



06

The following resources support Azure resource firewall. (choose the best answer)

- 1. Azure SQL and Storage Accounts
- 2. Azure SQL and Azure VMs
- 3. Azure VMs and Storage Accounts
- 4. Storage Accounts





06 ANSWER

1. Azure SQL Servers and Databases, as well as Azure Storage Accounts support resource firewall.

Azure SQL Servers and Databases, as well as Azure Storage Accounts support resource firewall. Several other Azure PaaS services also support resource firewall.



07

The Standard tier of Microsoft Defender for Cloud is required to capture data on resource security hygiene.





07 ANSWER

FALSE

The free tier of Microsoft Defender for Cloud will also provide information on resource security hygiene.



08

To provide full access to the resources in an Azure resource group, you should grant only the Contributor role for the subscription.





08 ANSWER

FALSE

The Contributor role provides all permissions except the ability to grant access to others

There is no need to grant permissions at the subscription level. Always apply rule of least privilege when configuring RBAC in Azure.



09

You will configure a separate Front Door instance to route requests by URL path to different backend pools.





09 ANSWER

FALSE

URL Path Based Routing allows you to route traffic to backend pools based on URL paths of the request. This can be accommodated from a single Front Door instance.



10

You need to block outbound Internet traffic from Azure VMs, while allowing global access to Azure Storage, with minimum administrative effort. Which technology will you use?

- 1. Microsoft Defender for Cloud Apps
- 2. Network Security Group (NSG)
- 3. Application Security Groups (ASG)
- 4. Azure Application Gateway





10 ANSWER

2. Network Security Group (NSG)

NSG **Service Tags** allow you to block outbound access to the Internet, but still allow access to Azure storage in the same region for diagnostics & metrics.

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11

Azure Firewall requires you to specify the number of network virtual appliances according to your expected scale needs.





11 ANSWER

FALSE

For the exam, ensure you are familiar with Azure Firewall Manager for central policy management of multiple firewalls

High availability and auto-scale are built into the service. There is no network virtual appliance (NVA) count necessary.



12

Azure VMs can communicate across VNETs by default





12 ANSWER

FALSE

VMs on subnets within the same VNET have connectivity. Communication across VNETs requires VNET peering or VPN connectivity.



13

You plan to secure remote access from your on-premises network to your AKS cluster with minimum network latency and maximum security. Which solution will you choose?

- 1. Site-to-Site VPN
- 2. Point-to-Site VPN
- 3. Azure VNET Peering
- 4. Azure ExpressRoute





13 ANSWER

4. Azure ExpressRoute

Azure ExpressRoute does not use the public Internet, increasing security and control over network performance.



14

VMs included in an Application Security Group cannot be located in different Azure regions.





14 ANSWER

TRUE

Members of an Application Security Group must be located in the same Azure region.



15

Microsoft best practices recommend adding an additional layer of access control security to Azure SQL databases. Which feature will you implement?

- 1. Azure Active Directory Conditional Access
- 2. Azure App Gateway
- 3. Network Security Group
- 4. Azure SQL Server-level firewall rule





15 ANSWER

4. Azure SQL Server-level firewall rule

You can create server-level firewall rules for single and pooled databases.



16

To achieve high availability for VMs in an Azure region, the following options are available

- 1. Availability Sets and Azure Site Recovery
- 2. Availability Sets, Availability Zones, Azure Site Recovery
- 3. Availability Sets and Availability Zones
- 4. Azure Site Recovery and Availability Zones





16 ANSWER

3. Availability Sets and Availability Zones

Both Availability Sets and Availability Zones enable VM high availability (HA) in an Azure region. Azure Site Recovery delivers disaster recovery (DR), not HA.



17

The service principal required by Azure Kubernetes Service (AKS) can be created by the following methods:

- 1. Automatically during AKS deployment via the Azure CLI
- 2. Manually using the Azure CLI before AKS deployment
- 3. No service principal is required for AKS
- 4. Option 1 or 2





17 ANSWER

4. Manually before deployment or automatically during deployment via Azure CLI

Both manual and automatic service principal creation is possible. Ideally, you would instead use a **managed identity**, which can by enabled only during cluster creation.



18

SSH is disabled on AKS nodes by default.

TRUE or FALSE?





18 ANSWER

FALSE

AKS allows SSH from private IPs by default. On the topic of access, know that Azure Kubernetes Service (AKS) can be configured to use Azure AD for user authentication.



19

You need to enforce that all new resources are created in specific Azure regions. You create an Azure policy. Does this meet your objective?

YES or NO?





19 ANSWER

YES

Initiative = a group of policies Blueprints for governed environments

You can assign a **policy** to enforce a condition for resources you create in the future. For the exam, know what **initiatives** and **blueprints** are as well.



20

You can configure the following scanning options for your container images for Azure Kubernetes Service

- 1. In the Azure Container Registry
- 2. At design time in Visual Studio Code
- 3. In the AKS container runtime
- 4. Options 1 and 3





20 ANSWER

1. In the ACR, 3. In AKS container runtime

Scanning of both the ACR and AKS runtime are possible to identify vulnerabilities related to your containerized services.



21

What are the two distinct modes of runtime isolation for Windows containers?

- 1. Process
- 2. Global
- 3. Hyper-V
- 4. Local





21 ANSWER

1. Process, 3. Hyper-V

With process isolation mode, containers share the same kernel with the host as well as each other. With Hyper-V isolation, each container effectively gets its own kernel.



22

Which of the following can be associated to a Network Security Group (NSG)? Select all that apply.

- 1. Virtual Network (VNET)
- 2. Subnet
- 3. Resource Group
- 4. Network Interface Card (NIC)





22 ANSWER

2. Subnet and 4. NIC

You can configure NSGs on subnet and Network Interface Card (NIC) and may be used together if desired.



23

Which of the following options can be used to create custom RBAC roles? Select all that apply.

- 1. Azure PowerShell
- 2. Azure CLI
- 3. REST API
- 4. ARM Template





23 ANSWER

1. Azure PowerShell, 2. Azure CLI, 3. REST API

All are valid options for creating custom RBAC roles except ARM template. You can configure an existing custom RBAC role with an ARM template.



24

You need to configure a reverse proxy for TLS termination for inbound access to an Azure Kubernetes cluster. What option do you deploy?

- 1. Azure Firewall
- 2. Ingress Controller
- 3. Container Network Interface (CNI) plug-in
- 4. Azure Application Gateway





24 ANSWER

2. Ingress Controller

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



25

Microsoft Defender for Cloud includes a "quick fix" option to add a vulnerability assessment solution to your Azure virtual machines. Which partner option is integrated with Defender for this feature?

- 1. Rapid7
- 2. Nessus
- 3. Qualys
- 4. Thales





25 ANSWER

3. Qualys

This VM scanning capability from **Qualys** was incorporated into the Standard tier of Microsoft Defender for Cloud with simplified deployment for free.



26

The following security principals may be granted rights to a resource group:

- 1. Service Principal
- 2. Managed Identity
- 3. Azure AD User
- 4. All of the above





26 ANSWER

4. All of the above

Options 1, 2, and 3 are all security principals to which resource group access may be granted.



27

What are the options for configuring a custom RBAC role in Azure AD? (choose the best answer)

- 1. PowerShell
- 2. Azure Portal
- 3. REST API
- 4. All of the above





27 ANSWER

4. All of the above

Custom RBAC roles can be configured both in the Azure portal and programmatically.



28

You need to ensure that all your Azure VMs have a consistent operating system configuration at deploy time. Which of the following options would you configure?

- 1. ARM templates
- 2. Desired State Configuration (DSC)
- 3. Application Security Groups
- 4. Device configuration policies





28 ANSWER

2. Desired State Configuration (DSC)

DSC will enable policy-based configuration of the OS and is used by management features such as Azure Update Management.



29

You are configuring an Azure Firewall instance. You want to ensure all traffic from an Azure subnet going to www.kineteco.com is routed through the Azure Firewall. Which option should you implement?

- 1. Network Rule
- 2. Route Table
- 3. Application Rule
- 4. Network Security Group (NSG)





29

ANSWER

For the exam, know the difference between NAT rules, Network rules, and Application rules

3. Application Rule

You can configure application rules that define fully qualified domain names (FQDNs) that can be accessed from a subnet, and network rules that define source address, protocol, destination port and address.



30

Contoso hosts Azure resources which they have shared with guest users from Kineteco Corp. Both orgs have their own Azure AD tenant. Which tenant owns the user lifecycle in this external identity scenario?

- 1. Account tenant
- 2. Resource tenant
- 3. Microsoft
- 4. It depends





30 ANSWER

See "Managing external identities in Azure AD" in my LinkedIn Learning course

2. Resource tenant

The resource tenant is Contoso which owns the lifecycle of guest account access. The account tenant is Kineteco, which owns the credentials in the Kineteco Azure AD tenant that was granted guest access.



31

Which modes are available for rules in Azure Web Application Firewall (WAF)? (choose two)

- 1. Block mode
- 2. Prevention mode
- 3. Detection mode
- 4. Report-only mode





31 ANSWER

WAF is based on is based on Core Rule Set (CRS) from OWASP

2. Prevention Mode 3. Detection mode

WAF can be configured to run in the following two modes:

Detection mode: Monitors and logs all threat alerts.

Prevention mode: Blocks intrusions and attacks that the

rules detect.

See "Create and configure Web App Firewall" in my 'AZ-500 Exam Prep 2' course



32

How do you enable the Basic tier of Azure DDoS for your Azure subscriptions?

- 1. Configure an Azure DDoS instance
- 2. Enable Azure DDoS within Microsoft Defender
- 3. No action is necessary





32 ANSWER

3. No action is necessary

Azure DDoS Basic is enabled by default in the Azure platform, which constantly monitors traffic and enforces real-time mitigation of the most common network attacks. No configuration is required for the Basic tier.



33

You want to ensure access for all Azure SQL instances from a specific VNET does not traverse the public Internet. Which solution will you implement?

- 1. Private Link
- 2. Service Endpoint
- 3. Private Endpoint
- 4. Site-to-Site VPN



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33 ANSWER

Know the differences between Private Link, Private Endpoint, and Service Endpoint

2. Service Endpoint

Service endpoint is configured at the VNET level for all instances of a PaaS service, optimizing traffic routing over the Azure backbone network. The destination IP is still a public IP (but accessed via the Azure backbone).

See the videos for these three services in my 'AZ-500 Exam Prep 2' course



01

Azure Monitor can be used to alert on events of interest to Security Operations (SecOps).

TRUE or FALSE?





01 ANSWER

TRUE

Events from the Administrative and Security categories of the Activity Log are definitely of interest to SecOps.



02

Which Microsoft tool is designed to help identify and mitigate potential application security issues early in the software development lifecycle (SDLC)?

- 1. Microsoft Defender for Cloud
- 2. Microsoft Threat Modeling Tool
- 3. Microsoft Compliance Manager
- 4. Microsoft Defender for Cloud Apps





02 ANSWER

2. Microsoft Threat Modeling Tool

The Microsoft Threat Modeling Tool enables software architects to evaluate designs using the **STRIDE** threat modeling methodology.



03

The VM vulnerability scanning feature in Microsoft Defender can also scan for vulnerabilities in open-source databases on Azure VMs.

TRUE or FALSE?





03 ANSWER

FALSE

Only Microsoft SQL on VMs is available.

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04

The free tier of Microsoft Defender for Cloud can identify deficiencies in baseline Azure network configuration, such as a subnet without a network security group (NSG).

TRUE or FALSE?





04 ANSWER

TRUE

Intelligence, hybrid, threat protection (formerly ATP), and regulatory compliance require the Standard tier

The free tier of Microsoft Defender for Cloud does identify configurations that deviate from best practices for network resources, as well as storage, compute, and other services.



05

The Free tier of Microsoft Defender for Cloud allows you to change the default policy to disable checks that you wish to ignore.

TRUE or FALSE?





05 ANSWER

TRUE

Yes, you can change the default Microsoft Defender policy settings, even in the Free tier.



06

Just-in-Time VM access allows the requester to specify duration of access up to the configured maximum.

TRUE or FALSE?





06 ANSWER

TRUE

The requester is able to specify how much time is needed, up to the maximum the service has been configured to allow for the specific VM.



07

Microsoft Defender for Cloud recommendations are listed in descending order of the severity of the security vulnerabilities they address.

TRUE or FALSE?





07 ANSWER

FALSE

Recommendations are listed in descending order of the point value (impact) to the Security Score.



08

Which of the following solutions features automated security investigations?

- 1. Microsoft Defender for Endpoint
- 2. Microsoft Defender for Cloud
- 3. Azure Monitor
- 4. Microsoft Sentinel





08 ANSWER

1. Microsoft Defender for Endpoint

Only Microsoft Defender for Endpoint includes an automated investigation feature (as of Jan 2022).

Response automation is possible in Sentinel with playbooks, but is not full-scale automated investigation



09

Which of the following logs capture control plane operations in your Azure subscription?

- 1. Metrics
- 2. Diagnostic Log
- 3. Activity Log
- 4. Subscription Log





09 ANSWER

4. Activity Log

Activity logs provide information about Azure Resource Manager control plan operations like CREATE, UPDATE, and DELETE operations.

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10

When you don't know how long you need to retain data in a blob, you can configure a legal hold.

TRUE or FALSE?





10 ANSWER

TRUE

A legal hold remains in place until you release it, preventing the blob from being deleted.

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11

You are configuring Azure Policy. Which of the following policy effects require you to assign a managed identity? (Choose two)

- 1. Append
- 2. AuditIfNotExists
- 3. Modify
- 4. DeployIfNotExists





11 ANSWER

3. Modify, 4. DeployIfNotExists

Because they are write actions, **Modify** and **DeployIfNotExists** require a managed identity to succeed.



12

You are deploying VMs using ARM templates. You want to include enrollment into Azure Log Analytics as part of the deployment. Which two parameters must you include in the ARM template?

- 1. WorkspaceID
- 2. AccessKey
- 3. WorkspaceKey
- 4. WorkspaceName





12 ANSWER

1. WorkspaceID, 3. WorkspaceKey

You will need to provide the Log Analytics **WorkspaceID** and **WorkspaceKey** for the VM extension that deploys the agent.



13

Which Azure platform log captures data plane events?

- 1. Resource Log
- 2. Activity Log
- 3. Azure AD Log
- 4. Audit Log





13 ANSWER

1. Resource Log

Resource logs provide insight into operations that were performed within an Azure resource (the data plane)



14

Playbooks in Microsoft Sentinel are based on which of the following technologies?

- 1. Azure Automation Runbooks
- 2. Jupyter Notebooks
- 3. Azure Logic Apps
- 4. Azure Functions





14 ANSWER

3. Azure Logic Apps

Security playbooks are based on Logic Apps and include specific triggers and actions to automate response to alerts in Microsoft Sentinel.



15

Which Microsoft Sentinel RBAC role is required to allow an analyst to manage incidents (assign, dismiss, etc.)? (choose the best answer)

- 1. Microsoft Sentinel Reader
- 2. Microsoft Sentinel Responder
- 3. Microsoft Sentinel Contributor
- 4. Microsoft Sentinel Automation Contributor





15 ANSWER

4. Microsoft Sentinel Responder

Microsoft Sentinel Responder can manage incidents (assign, dismiss, etc.). So can the Microsoft Sentinel Contributor, but that role also includes authoring rights.

Remember "least privilege access"



16

Which of the following statements is true for an Azure Policy initiative? An initiative is:

- 1. A policy assignment
- 2. A policy assignment scope
- 3. A collection of policies
- 4. A policy definition





16 ANSWER

3. A collection of policies

An Azure initiative is a collection of Azure policy definitions that are grouped together towards a specific goal or purpose in mind.



17

Which of the following are advantages of Azure Bastion over traditional remote desktop access?

- 1. The session is managed in the browser
- 2. No public IP addresses are necessary
- 3. Uses standard RDP ports
- 4. Supports both Windows and Linux VMs





17 ANSWER

1) Browser-based and 2) Uses private IPs

Azure Bastion provides remote access directly from the Azure portal over port 443, connecting to private IP addresses of the target Azure VMs.



18

In Microsoft Sentinel, _____ are groups of related _____ that together create an actionable potential threat that you can investigate and resolve.

- 1. Alerts, Incidents
- 2. Incidents, Events
- 3. Events, Alerts
- 4. Incidents, Alerts





18 ANSWER

4. Incidents, Alerts

Incidents are groups of related alerts that together create an actionable, potential threats that you can investigate and resolve. Microsoft Sentinel uses analytics and machine learning rules to correlate low fidelity alerts into high fidelity incidents.



19

Azure Policy allows the assignment of a policy to a management group. What level of scope is affected by a policy targeted to a management group?

- 1. All Azure subscriptions
- 2. All resource groups in a subscription
- 3. All subscriptions in the management group
- 4. Resource groups in the management groups





19 ANSWER

3. All subscriptions in the management group

A management group facilitates targeting policy to multiple subscriptions of your choosing, or all subscriptions in the tenant if you target the root group.



20

When creating alert rules in Azure Monitor for events in the Azure Activity log, what must you configure to notify users when an alert is triggered?

- 1. Resource
- 2. Action group
- 3. Target criteria
- 4. Alert logic





20 ANSWER

2. Action group

An **action group** is a collection of notification preferences defined by the owner of an Azure subscription. Azure Monitor and Service Health alerts use action groups to notify users that an alert has been triggered.



21

An Azure Bastion host provides ____ and ___ connectivity to workloads sitting behind the bastion host.

- 1. SSH, HTTPS
- 2. HTTPS, RDP
- 3. SSH, RDP
- 4. RDP, HTTP





21 ANSWER

3. SSH, RDP

While you connect to the bastion host on 443 from the Azure portal, the bastion provides RDP (Windows) and SSH (Linux) connectivity to Azure VMs.



22

Just-in Time VM Access and Azure Bastion are designed to work together.





22 ANSWER

FALSE

The JIT VM Access feature provides a gated solution for RDP and SSH to public IPs. Azure Bastion provides remote access via a browser and Azure portal using a VMs private IP.



23

Playbooks in Microsoft Sentinel use a special to instantiate an automated response using an Azure Logic App.

- 1. Action
- 2. Trigger
- 3. Condition
- 4. Connector





23 ANSWER

2. Trigger

Security playbooks are Azure Logic Apps that use a special trigger designed for Microsoft Sentinel.



24

You notice that when you attempt to investigate an incident created from your custom rule in Microsoft Sentinel that the investigation graph is empty. What is the most likely cause?

- 1. Rule is disabled
- 2. Permissions (RBAC)
- 3. Query syntax
- 4. Entity mapping





24 ANSWER

4. Entity mapping

You'll only be able to investigate the incident if you used the **entity mapping** fields when you set up your analytics rule. The investigation graph requires that your original incident includes entities.



01

You can configure Azure AD authentication for which of the following?

- 1. Queues, Blobs
- 2. Queues, Blobs, Files
- 3. Queues, Blobs, Tables
- 4. Queues, Files





01 ANSWER

1. Queues, Blobs

Only Azure Storages queues and blobs support Azure AD authentication.



02

Microsoft Defender for App Service can be enabled for an App Service plan only if the plan is associated with dedicated machines.





02 ANSWER

FALSE

Microsoft Defender for App Service supports all App Service plans except Azure Functions on the consumption plan.



03

With Azure SQL, you can configure Azure AD Domain Services authentication.





03 ANSWER

FALSE

Azure SQL supports Azure AD authentication, but not Azure AD Domain Services authentication.



04

Azure Disk Encryption uses Bitlocker to encrypt OS and data volumes.





04 ANSWER

TRUE

DM-CRYPT is used for Linux VMs

Azure Disk Encryption does utilize Bitlocker, but only for Windows machines.



05

You need to obfuscate data in Azure SQL at the record level. Which feature will you use?

- 1. Transparent data encryption
- 2. Microsoft Defender for SQL
- 3. Azure AD authentication
- 4. Dynamic data masking





05 ANSWER

4. Dynamic data masking

Dynamic data masking (sometimes simply called "dynamic masking" enables partially obscuring sensitive data, like a credit card number or email address.



06

Shared access signature (SAS) tokens can be configured to restrict access by IP address.





06 ANSWER

TRUE

Yes, SAS tokens can restrict access to specific IPs or IP ranges, for specific resources, and if desired, for a limited period of time.



07

SAS tokens provide root access to an Azure Storage account until the key is revoked or rolled.





07 ANSWER

FALSE

This describes Shared Keys. SAS tokens are restricted to specified permissions for a limited period of time (specified at creation time).



08

Microsoft Defender for SQL can scan your Azure SQL databases weekly to identify vulnerabilities.





08 ANSWER

TRUE

You can also set custom baselines for permissions and feature configurations, and database settings.

The service can also scan SQL Managed Instance Database and Azure Synapse.



09

You can enforce data residency and sovereignty using which of the following?

- 1. Microsoft Defender for Cloud
- 2. Azure Policy
- 3. Azure Storage Encryption
- 4. Azure Automation





09 ANSWER

2. Azure Policy

Azure Policy enables you to configure an "allowed locations" policy to limit deployments to your approved Azure regions only.

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10

You can use Azure AD authentication to secure Key Vault at the management plane.





10 ANSWER

TRUE

You can secure a Key Vault instance using Azure AD authentication.

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11

Microsoft Defender for Cloud uses Azure policy to configure default monitoring and remediation behaviors.





11 ANSWER

TRUE

and can be customized even on the Free tier

Yes, Microsoft Defender for Cloud includes a default Azure policy containing a number of default settings that control monitoring and remediation behavior.



12

You can limit operations on a key in Azure Key Vault by configuring the settings under Permitted operations.





12 ANSWER

TRUE

You can limit a variety of operations under Permitted operations, like Encrypt, Decrypt, Sign, and Verify.



13

You can bind client certificates to which App Service Plan tiers?

- 1. Isolated only
- 2. Premium only
- 3. Standard or Premium
- 4. Basic, Standard, Premium, or Isolated





13 ANSWER

4. Basic, Standard, Premium, or Isolated

App Service supports client certificates on Basic, Standard, Premium, or Isolated tiers.



14

Azure Storage accounts are encrypted by default:

- 1. Always
- 2. For Premium storage only
- 3. Only for zone-redundant storage (ZRS)
- 4. Only for geo-redundant storage (GRS)





14 ANSWER

1. Always

All Azure Storage accounts are always encrypted by default. Customers can choose to choose to manage their own keys for encrypting the storage service.



15

A resource forest in Azure AD Domain Services will sync accounts from onpremises as well as Azure.

TRUE or FALSE?





15 ANSWER

FALSE

Only a user forest synchronizes accounts from on-premises Active Directory (AD).



16

Microsoft recommends shared keys in Azure Storage should be rolled automatically using which core service?

- 1. Azure App Service
- 2. Azure Key Vault
- 3. Logic Apps
- 4. Azure Functions





16 ANSWER

2. Azure Key Vault

Microsoft recommends automating rolling of storage account keys exclusively with Key Vault.



17

What are the types of authentication are supported as an access control measure to Azure SQL Database? (Choose two)

- 1. Passthrough Authentication
- 2. Certificate Authentication
- 3. Azure Active Directory (AD) authentication
- 4. SQL authentication





17 ANSWER

3. Azure AD auth and 4. SQL auth

You can use traditional **SQL authentication** (user and password) or enable **Azure AD authentication**. Your apps can use a connection string, but this will generally leverage SQL authentication



18

You can configure Transparent Data Encryption (TDE) for individual database columns containing your sensitive data.

TRUE or FALSE?





18 ANSWER

FALSE

TDE encrypts the storage of an entire database by using a symmetric key called the database encryption key (DEK).



19

You cannot configure Always Encrypted for individual database columns containing your sensitive data.

TRUE or FALSE?





19 ANSWER

FALSE

You can encrypt individual database columns. **Always Encrypted** is a data encryption technology that ensures that sensitive data never appears as plaintext inside the database system.



20

You create a new Azure Key Vault and want to ensure that permanent deletions of secrets, keys, and certificates can be recovered for at least 30 days. Which two settings will you enable?

- 1. Soft delete
- 2. Delete lock
- 3. Purge protection
- 4. Read-only lock





20 ANSWER

1. Soft delete, 3. Purge protection

When **soft-delete** is enabled, resources marked as deleted resources are retained for a specified period (90 days by default). **Purge protection** ensures objects cannot be purged during the retention period.

Soft delete is ON by default, but purge protection is OPTIONAL



21

You need to provide a user access to download content from your Storage Account, limited to 24 hours. Which option should you choose?

- 1. Storage Account Firewall
- 2. Shared Key (storage account key)
- 3. Storage Blob Data Reader RBAC role
- 4. Shared Access Signatures (SAS)





21 ANSWER

4. Shared Access Signatures (SAS)

SAS tokens offer a variety of controls to limit time and scope of access, where shared keys offer the equivalent of root access forever.



22

In Azure SQL Database Always Encrypted, two types of column encryption are supported. (Choose both types from the list below)

- 1. Deterministic
- 2. Symmetric
- 3. Randomized
- 4. Asymmetric





22 ANSWER

1. Deterministic, 3. Randomized

All Azure SQL Database Always Encrypted supports deterministic and randomized encryption

Deterministic encryption supports equality lookups, joins, and group by operations but is slightly less secure than Randomized.



23

Which is the most accurate description of the Transparent Data Encryption (TDE) feature of Azure SQL Database?

- 1. Table-level encryption at-rest
- 2. Row-level encryption in-transit
- 3. Row-level encryption at-rest
- 4. Database-level encryption at-rest





23 ANSWER

4. Database-level encryption at-rest

TDE performs real-time encryption and decryption of the database, associated backups, and transaction log files at rest without requiring changes to the application.



24

Azure storage accounts are exposed to the Internet by default. Access is possible through which of the following methods? (Choose all that apply)

- 1. Storage account key
- 2. Shared access signature (SAS)
- 3. Master key
- 4. Azure AD (RBAC permissions)





24 ANSWER

- 1. Storage account key, 2. SAS, and
- 4. Azure AD

Storage account key, shared access signature (SAS), and Azure AD are all methods for accessing Azure storage.



25

What PowerShell cmdlet is used to initiate Azure Disk Encryption for a Windows or Ubuntu-based VM in Azure?

- 1. Set-AzVMDiskEncryptionWindows
- 2. Set-AzVMDiskEncryptionExtension
- 3. Set-AzVMDiskEncryptionLinux
- 4. Set-AzVMDiskEncryption





25 ANSWER

2. Set-AzVMDiskEncryptionExtension

The cmdlet to enable the disk encryption is the same for Windows or Linux. The **-ExtensionType** parameter is where you specify the OS type (Windows or Linux)



26

You need to implement security in SQL server to ensure database admins never see sensitive customer info, such as credit card data, in databases they manage. Which option should you choose?

- 1. Row-level security
- 2. Always Encrypted
- 3. Transparent Data Encryption
- 4. Dynamic Masking





26 ANSWER

3. Always Encrypted

Always Encrypted allows clients to encrypt sensitive data inside client applications and never reveal the encryption keys to the Database Engine. As a result, Always Encrypted provides separation between data owner and manager.



27

Which options allow configuration of Key Vault secrets? (Choose all that apply)

- 1. Azure CLI
- 2. Azure PowerShell
- 3. REST API
- 4. ARM Templates





27 ANSWER

1,2,3,4 (all in the list)

In addition to PowerShell, Azure CLI, and the REST API, ARM templates can also be used to configure Key Vault secrets.



28

When securing Azure Key Vault (AKV), you need to secure the 1) AKV instance and the 2) secrets hosted in the key vault. Which controls are used for each? (choose the best answer)

- 1. 1)RBAC, 2)RBAC
- 2. 1)RBAC, 2)Access policies or RBAC
- 3. 1)Access policies, 2)RBAC
- 4. 1) RBAC or Access policies 2) Access policies





28 ANSWER

2. 1)RBAC, 2)Access policies or RBAC

You control access to a Key Vault instance (management plane) with role-based access control (RBAC). You can secure secrets, certs, and passwords in the vault (data plane) with access policies or RBAC.



29

Which of the following Azure tools can be used for detecting and remediating deviations from Microsoft's recommended security baseline for common workloads? (Choose the best answer)

- 1. Azure Monitor
- 2. Desired State Configuration
- 3. Azure Automation
- 4. Microsoft Defender for Cloud





29 ANSWER

4. Microsoft Defender for Cloud

This functionality is built into Microsoft Defender for Cloud, even in the Free tier (Resource Security Hygiene). Microsoft offers a step-by-step tutorial on how to create a baseline in Microsoft Defender for Cloud.



30

Which of the Azure RBAC roles below will allow you to create custom RBAC roles in Azure? (Choose all that apply)

- 1. Contributor
- 2. Owner
- 3. User Access Administrator
- 4. Security Administrator





30 ANSWER

2. Owner, 3. User Access Administrator

You need explicit permissions to create custom roles, such as Owner or User Access Administrator



31

How does Azure SQL Database provide protection for data at rest?

- 1. Dynamic Masking
- 2. Azure Storage Service Encryption
- 3. Always Encrypted
- 4. Transparent Data Encryption





31 ANSWER

4. Transparent Data Encryption

Transparent Data Encryption performs real-time encryption and decryption of the database, associated backups, and transaction log files at rest without requiring changes to the application.



32

What is the minimum Azure Active Directory built-in RBAC role required to manage Azure Key Vault?

- 1. Key Vault Reader
- 2. Key Vault Contributor
- 3. Security Administrator
- 4. Privileged Role Administrator





32 ANSWER

2. Key Vault Contributor

To grant access to a user to manage key vaults, you assign a predefined **Key Vault Contributor** role to the user at a specific scope.



33

What is the advantage of using an App Service certificate in managing TLS/SSL communication on your web app. (Choose all that apply)

- 1. Certificate is stored in Azure Key Vault
- 2. Certificate is issued by a trusted 3rd party provider
- 3. Certificate is self-signed
- 4. Certificate renewal is managed by Azure





33 ANSWER

- 1. Stored in AKV, 2. Issued by 3rd party, and
- 4. Renewal managed by Azure

Certificates acquired through this App Service feature are stored in Key Vault, are renewed automatically, and come from a trusted provider, such as Digicert.



34

You are configuring security using a managed identity for your custom web app. Which option will minimize administrative effort?

- 1. User managed identity
- 2. System managed identity
- 3. Default managed identity
- 4. Service principal with Contributor rights





34 ANSWER

2. System Managed Identity

A **system managed identity** is lower effort than a user managed identity because its password is maintained automatically. It is also deprovisioned automatically when the associated resource is deprovisioned.



THANKS

FOR WATCHING!