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# SKILLCERTPRO

IT CERTIFICATION TRAININGS



Microsoft Azure / By SkillCertPro

## Practice Set 11

Your results are here!! for" Microsoft Azure AZ-305 Practice Test 11 "

26 of 35 questions answered correctly

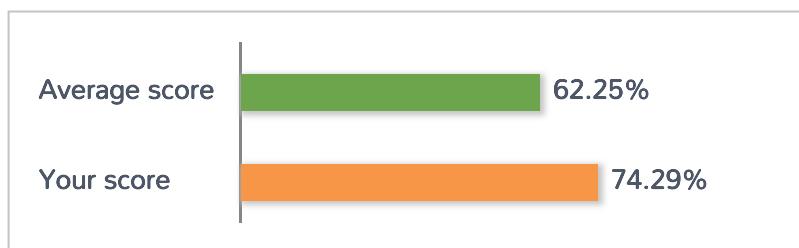
Your time: 01:26:57

Your Final Score is : 26

You have attempted : 35

Number of Correct Questions : 26 and scored 26

Number of Incorrect Questions : 9 and Negative marks 0



You can review your answers by clicking on "View Answers" option.

**Important Note :** Open Reference Documentation Links in New Tab (Right Click and Open in New Tab).

[Restart Test](#)

[View Answers](#)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34

35

 Answered  Review

## 1. Question

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?

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

### Incorrect

Reference:

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

## 2. Question

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?

- shared access signatures (SAS)
- Conditional Access policies

- certificates
- access keys

### Correct

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>

### 3. Question

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.

Azure AD Application Proxy

Azure AD Privileged Identity Management (PIM)

Conditional Access policies

Azure Arc

Azure AD enterprise applications

Azure Application Gateway

### Incorrect

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.

Azure App proxy for connecting without VPN and Enterprise App for SSO.

As mentioned in question “Some users work remotely and do NOT have VPN access to the on-premises network.“

Authentication on an on-premises domain is not possible. Register for Azure AD enterprise applications to enable SSO

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-config-sso-how-to>  
<https://docs.microsoft.com/en-us/azure/active-directory/develop/active-directory-how-applications-are-added#what-are-service-principals-and-where-do-they-come-from>  
<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-config-sso-how-to>  
<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-deployment-plan>

#### 4. Question

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?

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

#### Correct

Have reviews recur periodically: You can set up recurring access reviews of users at set frequencies such as weekly, monthly, quarterly or annually, and the reviewers will be notified at the start of each review. Reviewers can approve or deny access with a friendly interface and with the help of smart recommendations.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview#learn-about-access-reviews>

#### 5. Question

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.y

## Answer Area

Databricks SKU:

Premium	
Standard	

Cluster configuration:

Credential passthrough	
Managed identities	
MLflow	
A runtime that contains Photon	
Secret scope	

Premium

Credential passthrough

Standard

Managed identities

Premium

MLflow

Premium

A runtime that contains Photon

Standard

Secret scope

Incorrect

Box 1: Premium-

Databricks SKU should be a Premium plan. As the doc states both cloud storage access and credential passthrough features will need a Premium plan. <https://docs.microsoft.com/en-us/azure/databricks/sql/user/security/cloud-storage-access>

**Box 2: Credential passthrough –**

Authenticate 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>

## 6. Question

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.

### Answer Area

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

<input type="checkbox"/>
An Azure AD app registration
An Azure AD managed identity
Azure AD Application Proxy

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

<input type="checkbox"/>
A Conditional Access policy
An Azure AD administrative unit
Azure Application Gateway
Azure Blueprints
Azure Policy

An Azure AD app registration

A Conditional Access policy

An Azure AD managed identity

An Azure AD administrative unit

Azure AD Application Proxy

Azure Application Gateway

 An Azure AD app registration

Azure Blueprints

 An Azure AD managed identity

Azure Policy

### Correct

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>

## 7. Question

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 being 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?

 YES NO

### Incorrect

Traffic Analytics is a cloud-based solution that provides visibility into user and application activity in cloud networks. Traffic analytics analyzes Network Watcher network security group (NSG) flow logs to provide insights into traffic flow in your Azure cloud. With traffic analytics, you can: Visualize network activity across your Azure subscriptions and identify hot spots

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

“Pinpoint network misconfigurations leading to failed connections in your network”

“Statistics of blocked traffic. Why a host is allowing or blocking significant traffic volume” .

All these information can help to find root cause of connectivity issue.

## 8. Question

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 Advisor to analyze the network traffic.

Does this meet the goal?

YES

NO

### Correct

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>

## 9. Question

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 Network Watcher to run IP flow verify to analyze the network traffic.

Does this meet the goal?

YES

NO

### Correct

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>

## 10. Question

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.

**Tables**

AzureActivity

AzureDiagnostics

Event

Syslog

**Answer Area**

Events from Windows event logs:

Table

Events from Linux system logging:

Table

 AzureActivity

Syslog

 Event

AzureDiagnostics

 AzureDiagnostics

Syslog

 Event

Syslog

**Correct**

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>**11. Question**

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.

Azure Active Directory (Azure AD) administrative units

Azure Active Directory (Azure AD) tenants

 subscriptions compute resources

resource groups management groups**Correct**

subscriptions

resource groups

management groups

<https://docs.microsoft.com/en-us/azure/governance/policy/assign-policy-portal>

On the Assign Policy page, set the Scope by selecting the ellipsis and then selecting either a management group or subscription. Optionally, select a resource group

**12. Question**

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:

**Features****Answer Area**

a public Azure Load Balancer

a managed identity

an internal Azure Load Balancer

a Conditional Access policy

an Azure App Service plan

Azure AD Application Proxy

an Azure AD enterprise application

 Azure AD Application Proxy

an Azure AD enterprise application

a Conditional Access policy

- a public Azure Load Balancer
- a managed identity
- an internal Azure Load Balancer
- an internal Azure Load Balancer
- an Azure App Service plan
- Azure AD Application Proxy
- a managed identity
- an internal Azure Load Balancer
- a Conditional Access policy

Correct

**Features**

**Answer Area**

a public Azure Load Balancer

Azure AD Application Proxy

a managed identity

an Azure AD enterprise application

an internal Azure Load Balancer

a Conditional Access policy



an Azure App Service plan

### 13. Question

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?

- Azure Activity Log
- Azure Advisor
- Azure Analysis Services
- Azure Monitor action groups

Correct

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>

## 14. Question

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?

- Azure SQL Database elastic pools
- Azure SQL Managed Instance
- Azure SQL Database single databases
- SQL Server 2016 on Azure virtual machines

### Correct

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>

## 15. Question

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.

- an Azure Logic Apps integration account
- an Azure Import/Export job
- Azure Data Factory
- an Azure Analysis services On-premises data gateway
- an Azure Batch account

**Correct**

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/introduction>

## 16. Question

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?

- one Azure Data Factory pipeline
- multiple storage account queues
- one Azure Service Bus queue
- one Azure Service Bus topic

**Correct**

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>

## 17. Question

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.

### Answer Area

Storage account type:

	<input type="checkbox"/> BlobStorage
	<input type="checkbox"/> BlockBlobStorage
	<input type="checkbox"/> FileStorage
	<input type="checkbox"/> StorageV2 with Premium performance
	<input type="checkbox"/> StorageV2 with Standard performance

Storage service:

	<input type="checkbox"/> Blob
	<input type="checkbox"/> File
	<input type="checkbox"/> Table

BlobStorage

File

BlockBlobStorage

Blob

FileStorage

Table

StorageV2 with Premium performance

Blob

StorageV2 with Standard performance

Table

Correct

**Answer Area**

Storage account type:

BlobStorage
BlockBlobStorage
FileStorage
StorageV2 with Premium performance
StorageV2 with Standard performance

Storage service:

Blob
File
Table

Box 1: BlockBlobStorage –

BlockBlobStorage provide a very low latency(x40) (Read and Write) and Throughput (x5). One big file is splitted in “blobs“ that are processed in parallel (for read and write).

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://azure.microsoft.com/en-us/blog/premium-block-blob-storage-a-new-level-of-performance/>

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

**18. Question**

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

Storage1 and storage2 only

Storage4 only

Storage1 and storage3 only

Storage1 and storage4 only

Storage1, storage2, and storage3 only

Storage1, storage2, and storage4 only

Storage1, storage2, storage3, and storage4

Storage1, storage2, storage3, and storage4

Incorrect

## 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

Box 1: Storage1 and storage3 only

Azure Blob Storage lifecycle management offers a rich, rule-based policy for GPv2 and blob storage accounts. Storage 2 does not support access tiers.

Box 2: Storage1 and storage4 only

FileStorage storage accounts allow you to deploy Azure file shares on premium/solid-state disk-based (SSD-based) hardware.

Reference:

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

<https://docs.microsoft.com/ja-jp/azure/storage/common/storage-account-overview>

## 19. Question

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?

Azure Files

Azure Data Lake Storage Gen2 Azure Blob Storage Azure SQL Database

### Correct

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>

## 20. Question

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?

 an elastic pool that contains 20 Azure SQL databases 20 databases on a Microsoft SQL server that runs on an Azure virtual machine in an availability set 20 databases on a Microsoft SQL server that runs on an Azure virtual machine 20 instances of Azure SQL Database serverless

### Correct

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/>

## 21. Question

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.

### 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

Azure SQL Database

Hyperscale

Azure SQL Managed Instance

Business Critical

Azure Synapse Analytics

General Purpose

SQL Server on Azure Virtual Machines

Basic

Azure SQL Database

Premium

Azure SQL Managed Instance

Standard

Incorrect

## 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

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>

22. Question

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.

Azure Table Storage

Azure Event Grid

Azure Cosmos DB SQL API

Azure Time Series Insights

### Incorrect

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>

## 23. Question

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?

Azure Cosmos DB SQL API

Azure SQL Database that uses active geo-replication

Azure SQL Database Hyperscale

Azure Database for PostgreSQL

### Correct

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>

## 24. Question

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.

### Answer Area

Statements	Yes	No
When you enable auditing for SQLdb1, you can store the audit information to storage1.	<input type="checkbox"/>	<input type="checkbox"/>
When you enable auditing for SQLdb2, you can store the audit information to storage2.	<input type="checkbox"/>	<input type="checkbox"/>
When you enable auditing for SQLdb3, you can store the audit information to storage2.	<input type="checkbox"/>	<input type="checkbox"/>

YES

NO

**NO** YES

NO

YES

 YES

YES

NO

 NO

YES

YES

**Correct**

Correct Answer: Yes, No, No

Box 1: Yes –

Be sure that the destination is in the same region as your database and server.

Box 2: No –

Since the regions are not the same.

Box 3: No –

Premium storage is currently not supported.

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auditing-overview#auditing-limitations>**25. Question**

“You have SQL Server on an Azure virtual machine. The databases are written to nightly as part of a batch process.

You need to recommend a disaster recovery solution for the data. The solution must meet the following requirements:

“

Provide the ability to recover in the event of a regional outage.

Support a recovery time objective (RTO) of 15 minutes.

Support a recovery point objective (RPO) of 24 hours.

Support automated recovery.

Minimize costs.

What should you include in the recommendation?

- Azure virtual machine availability sets
- Azure Disk Backup
- an Always On availability group

## Azure Site Recovery

### Correct

Replication with Azure Site Recover:

RTO is typically less than 15 minutes.

RPO: One hour for application consistency and five minutes for crash consistency.

Incorrect Answers:

B: Too slow.

C: Always On availability group RPO: Because replication to the secondary replica is asynchronous, there's some data loss.

Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-sql>

## 26. Question

You plan to deploy the backup policy shown in the following exhibit.

# Policy 1

Associated items Delete Save Discard

## Backup schedule

\*Frequency \*Time \*Timezone

Daily

6:00 PM

(UTC) Coordinated Univers...

## Instant Restore

Retain instant recovery snapshot(s) for

3



Day(s)

## Retention range

Retention of daily backup point.

\*At

For

6:00 PM

90 Day(s)

Retention of weekly backup point.

\*On

\*At

For

Sunday

6:00 PM

26 Week(s)

Retention of monthly backup point.

**Week Based**

**Day Based**

\*On

\*Day

\*At

For

First

Sunday

6:00 PM

36

Month(s)

Retention of yearly backup point.

**Not Configured**

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

Virtual machines that are backed up by using the policy can be recovered for up to a maximum of [answer choice]:

	▼
90 days	
26 weeks	
36 months	
45 months	

The minimum recovery point objective (RPO) for virtual machines that are backed up by using the policy is [answer choice]:

	▼
1 hour	
1 day	
1 week	
1 month	
1 year	

36 months

1 day

26 weeks

1 month

90 days

1 hour

Incorrect

## 27. Question

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

Provide access to the full .NET framework.

Provide redundancy if an Azure region fails.

Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and you create an Azure Traffic Manager profile.

Does this meet the goal?

Yes

No

Correct

Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.

**Reference:**

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/load-balancing-overview>

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

## 28. Question

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

Provide access to the full .NET framework.

Provide redundancy if an Azure region fails.

Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and you deploy an Azure Application Gateway.

Does this meet the goal?

Yes

No

### Correct

App Gateway will balance the traffic between VMs deployed in the same region. Create an Azure Traffic Manager profile instead.

## 29. Question

You plan to create an Azure Storage account that will host file shares. The shares will be accessed from on-premises applications that are transaction-intensive.

You need to recommend a solution to minimize latency when accessing the file shares. The solution must provide the highest-level of resiliency for the selected storage tier.

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 Area**

Storage tier:

Hot
Premium
Transaction optimized

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

 Hot

Geo-redundant storage (GRS)

 Transaction optimized Locally-redundant storage (LRS)

“Premium

Zone-redundant storage (ZRS)

“

 Premium

Geo-redundant storage (GRS)

**Correct****Answer Area**

Storage tier:

Hot
Premium
Transaction optimized

Redundancy:

Geo-redundant storage (GRS)
Zone-redundant storage (ZRS)
Locally-redundant storage (LRS)

Box 1: Premium –

Premium: Premium file shares are backed by solid-state drives (SSDs) and provide consistent high performance and low latency, within single-digit milliseconds for most IO operations, for IO-intensive workloads.

**Incorrect Answers:**

Hot: Hot file shares offer storage optimized for general purpose file sharing scenarios such as team shares. Hot file shares are offered on the standard storage hardware backed by HDDs.

Transaction optimized: Transaction optimized file shares enable transaction heavy workloads that don't need the latency offered by premium file shares.

Transaction optimized file shares are offered on the standard storage hardware backed by hard disk drives (HDDs). Transaction optimized has historically been called "standard", however this refers to the storage media type rather than the tier itself (the hot and cool are also "standard" tiers, because they are on standard storage hardware).

Box 2: Zone-redundant storage (ZRS):

Premium Azure file shares only support LRS and ZRS.

Zone-redundant storage (ZRS): With ZRS, three copies of each file stored, however these copies are physically isolated in three distinct storage clusters in different Azure availability zones.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-planning>

### 30. Question

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

Provide access to the full .NET framework.

Provide redundancy if an Azure region fails.

Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy an Azure virtual machine scale set that uses autoscaling.

Does this meet the goal?

Yes

No

#### Correct

Instead, you should deploy two Azure virtual machines to two Azure regions, and you create a Traffic Manager profile.

### 31. Question

You have a .NET web service named Service1 that has the following requirements:

Must read and write temporary files to the local file system.

Must write to the Application event log.

You need to recommend a solution to host Service1 in Azure. The solution must meet the following requirements:

Minimize maintenance overhead.

Minimize costs.

What should you include in the recommendation?

an Azure App Service web app

an Azure virtual machine scale set

an App Service Environment (ASE)

an Azure Functions app

**Correct**

an Azure App Service web app

App Service Web app allows to read/write to a local file system and also to read/write to application Event Log. You will not be able to create new Application Event Log Sources, but this is not a requirement.

App Service Web App is less expensive than ASE and has less maintenance.

## 32. Question

You have the Azure resources shown in the following table.

Name	Type	Location
US-Central-Firewall-policy	Azure Firewall policy	Central US
US-East-Firewall-policy	Azure Firewall policy	East US
EU-Firewall-policy	Azure Firewall policy	West Europe
USEastfirewall	Azure Firewall	Central US
USWestfirewall	Azure Firewall	East US
EUFirewall	Azure Firewall	West Europe

You need to deploy a new Azure Firewall policy that will contain mandatory rules for all Azure Firewall deployments. The new policy will be configured as a parent policy for the existing policies.

What is the minimum number of additional Azure Firewall policies you should create?

0

1

2

3

**Correct**

Parent policy must be in the same region as child policy!

You get this information when creating a Firewall Policy. Parent Policy drop down list only shows policies in the same region.

Existing Firewall Policies are located in different regions. To link them to a new parent policy, each region must have a new parent policy => 3 new policies.

### 33. Question

Your company has an app named App1 that uses data from the on-premises Microsoft SQL Server databases shown in the following table.

NAME	SIZE
DB1	400 GB
DB2	250 GB
DB3	300 GB
DB4	50 GB

App1 and the data are used on the first day of the month only. The data is not expected to grow more than 3% each year.

The company is rewriting App1 as an Azure web app and plans to migrate all the data to Azure.

You need to migrate the data to Azure SQL Database. The solution must minimize costs.

Which service tier should you use?

vCore-based General Purpose

DTU-based Standard

vCore-based Business Critical

DTU-based Basic

**Incorrect**

vCore-based General Purpose->

vCore “Serverless compute tier: Azure automatically pauses and resumes the database based on workload activity in the serverless tier. During the pause period, Azure does not charge you for the compute resources.“

vCore tiers allow serverless and auto-pause, which matches perfect to “only used first day of month“.

Rest of the month, the service is paused.

Based on this, vCore General Purpose, Serverless is cheapest solution.

Reference:

<https://www.sqlshack.com/dtu-and-vcore-based-models-for-azure-sql-databases/>

### 34. Question

You are developing a sales application that will contain several Azure cloud services and handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.

You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using XML messages.

What should you include in the recommendation?

- Azure Service Fabric
- Azure Data Lake
- Azure Service Bus
- Azure Traffic Manager

### Correct

Asynchronous messaging options in Azure include Azure Service Bus, Event Grid, and Event Hubs.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/guide/technology-choices/messaging>

## 35. Question

You are planning to deploy an application named App1 that will run in containers on Azure Kubernetes Service (AKS) clusters. The AKS clusters will be distributed across four Azure regions.

You need to recommend a storage solution for App1. Updated container images must be replicated automatically to all the AKS clusters.

Which storage solution should you recommend?

- Azure Cache for Redis
- Azure Content Delivery Network (CDN)
- Premium SKU Azure Container Registry
- geo-redundant storage (GRS) accounts

### Correct

Enable geo-replication for container images.

Best practice: Store your container images in Azure Container Registry and geo-replicate the registry to each AKS region.

To deploy and run your applications in AKS, you need a way to store and pull the container images.

Azure Container Registry integrates with AKS, so it can securely store your container images or Helm charts.

Azure Container Registry supports multimaster geo-replication to automatically replicate your images to Azure regions around the world.

Geo-replication is a feature of Premium SKU container registries.

Note:

When you use Container Registry geo-replication to pull images from the same region, the results are:

Faster: You pull images from high-speed, low-latency network connections within the same Azure region.

More reliable: If a region is unavailable, your AKS cluster pulls the images from an available container registry.

Cheaper: There's no network egress charge between datacenters.

Reference:

<https://docs.microsoft.com/en-us/azure/aks/operator-best-practices-multi-region>

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